



Operationalizing ethnic origins: a multi-dimensional typology

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Abstract

This paper explores methodological issues concerning the operationalization of ethnicity in the field of education. The sole criterion of citizenship often applied in official educational statistics may exclude naturalized students with foreign and/or immigrant origins from the “non-national” category. The challenge of collecting reliable statistics on ethnic origins has become crucial in most Western European countries in recent years, as the quantification of this phenomenon is a fundamental starting point for the implementation of policies aimed at contrasting ethnic inequality and discrimination. Resorting to the 2011 Italian general population census, a multi-dimensional typology combining students’ and parents’ countries of birth, citizenship at census and citizenship at birth has been developed. Although the detection of ethnic origins should not be problematic in a country where the acquisition of citizenship is based on the right of blood, results reveal that official statistics classify almost 1 million students (9.35%) with foreign- and/or immigrant-origins as nationals. Moreover, an in-depth exploration of the origin country allows one to discern between native-born descendants of non-nationals born abroad and native-born descendants of Italian emigrants born abroad. This multi-dimensional typology may be a useful tool for obtaining more reliable data and implementing more effective policies to address educational inequalities.

Keywords Ethnic origins · Citizenship · Country of birth · Multi-dimensional typology · Italy

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Introduction

A flourishing debate has thrived on the importance of collecting reliable data on ethnicity since the turn of the century. Not only does enumerating populations with different ethnic origins contribute to developing knowledge of demographic dynamics over time, but it might be also a useful tool to promote positive anti-discrimination actions (Rallu et al. 2006). The increasing need to implement, monitor and assess policies' effectiveness in contrasting ethnic-based inequalities has uncovered how the operationalization of the wide concept of "ethnic origin" is complex (several dimensions contribute to qualifying ethnic origins) and controversial (there are different ways of collecting data on ethnic origins) (Williams and Husk 2013). Indeed, according to the sociological constructivist approach, ethnicity and ethnic origins are not objective and universal but vary according to the specific place, time and context under observation (Ford and Harawa 2010). This means that several social, cultural and historical dimensions contribute to defining ethnic origins and that each country is legitimized to select and combine those dimensions according to its own definition of ethnicity (Unece 2015).

An exploration of the questionnaires from 147 countries of the 2000 round of censuses demonstrates the heterogeneity in collecting data related to ethnic origins. This analysis unveils that only 95 countries (65%) asked one or more questions on ethnicity and that European countries are less likely to investigate this topic (53%) in comparison with South (82%) and North American countries (77%) (United Nations Statistics Division 2003). Simon's analysis (2012) of information collected on ethnic-related characteristics in official statistics in 41 European countries at the beginning of the 21st century reveals that, in 19 countries, citizenship and place of birth are the unique dimensions collected to portray ethnic diversity of the population and, in six of them, parents' place of birth is added, thus also making tracing ethnic origins possible.

The reluctance to collect data on ethnic origins is prevalent in most Western European countries. The reasons for this resistance are not solely technical and bureaucratic; they are also deeply rooted in historical legacies, such as Germany's fear of misusing ethnic data due to its past (Juan et al. 2021). Furthermore, the "colorblind" approach to policy – embodied by France's assimilationist model, which prioritizes individual rights over the recognition of ethnic categories – plays a role (Roig 2017). Other factors include political resistance to acknowledging ethnic minorities and concerns about reinforcing negative stereotypes and perpetuating discrimination (Simon 2017). As a result, no standardized criteria to collect exhaustive information on populations with ethnic origins have been adopted by most Western European countries so far, and problems of comparability are at stake (Simon et al. 2015).

The need for data on ethnic origins is urgent, as evidenced by the efforts of the European Union in developing institutional and legal frameworks with the aim of ensuring the collection of high-quality information and comparable data across countries (European Commission 2017, 2021).

For this purpose, the latest revised Principles and Recommendations for censuses confirm country of birth and country of citizenship as core topics to be included in

every census, whereas acquisition of citizenship, parents' country of birth, ethnicity, religion and language are additional topics (Unece 2015; United Nations 2017).

This paper aims to investigate if, and to what extent, official statistics conceal populations with ethnic origins in the field of education. The sole criterion of citizenship often applied in official educational statistics may be responsible for a remarkable underestimation of student population with foreign and/or immigrant background and a correct estimation of this phenomenon is crucial for the implementation of policies targeted to remove educational inequalities. Italy is the European country selected to explore this potential gap. This country is challenging to examine this phenomenon since the acquisition of citizenship is ruled by one of the most restrictive, blood-based laws. Therefore, the underestimation of the population with ethnic origins is expected to be restrained, especially among minors.

The goal of this article is not limited to quantifying the school population with ethnic origins but also aims to investigate the geographical origins of this population. This dimension is very important since, according to the country of origin, the acquisition of citizenship may vary considerably. Indeed, the legislation of the country of origin may or may not allow double citizenship; some national groups may have experienced migration a long time ago and achieved the prerequisites requested to acquire citizenship (Bonifazi et al. 2008; Strozza et al. 2022). The geographical dimension is also particularly crucial in the field of education since the country of origin may be differently related to educational and social integration into host societies: social values and norms – which are embedded in the culture of a country – shape priorities, as well as inequalities in the average availability of financial resources, which further influence integration (Chao 2000; Heat et al. 2008).

To fulfil these aims, a multi-dimensional classification derived from the combination of three dimensions (current citizenship, citizenship at birth and country of birth) related to students and their parents will be developed. Analyses will be based on the 2011 Italian Population and Housing Census conducted by the Italian National Institute for Statistics (ISTAT), which is also the last official general census involving all people residing in Italy.

The article is structured as follows: Section [Italian legislation on citizenship acquisition](#) provides a brief overview of the current Italian nationality law. Section [The importance of ethnic statistics in the field of education](#) briefly explains reasons why a correct enumeration of school body population with ethnic origins is important and illustrates the main limitations of Italian school statistics. Section [Data and methods](#) offers detailed information about data and methods. Sections [The 3-dimensional typology](#) and [The multi-dimensional typology](#) present results aimed at quantifying and describing Italy's students in ways not addressed by official statistics. Section [The multi-dimensional typology: forthcoming Italian citizens?](#) focuses on a residual, but not less important, category uncovered by the multi-dimensional classification: non-Italian students who are potentially able to acquire Italian citizenship soon. Finally, section [Conclusions](#) discusses and summarizes the main findings.

Italian legislation on citizenship acquisition

In 2022, the Italian nationality law (no. 91/1992) turned 30 years old. Already in the year of the law's enactment, most progressive politicians and scholars defined it as an anachronistic reform, more oriented to the past than to the present (Zincone 2006).

In 1992, Italy already turned into an immigration country: the 1981 Population Census had revealed a positive net migration for the first time; in 1986, the Italian Parliament had almost unanimously approved law no. 943 aimed at ruling immigration; in 1990, law no. 39 had been promoted to regulate immigration organically.

Although Italy had already lost its traditional trait of emigration country, the 1992 nationality law exemplified the persistent Italian political system's obstinacy in managing immigration as an exceptional phenomenon and considering immigrant people as "wanted but not welcome" guest workers (Zolberg 1987). Indeed, the new law emphasizes the *ius sanguinis* principle: citizenship is passed from (great-grand)parent to child on a bloodline basis. Therefore, paradoxically, law no. 91/1992 facilitates Italian citizenship acquisition by Italian emigrants' descendants, and it does not matter if the latter were born abroad, have never been to Italy and do not speak Italian. Additionally, in comparison with the previous law no. 555/1912, that of 1992 is more restrictive, since it hampers Italian citizenship acquisition by non-EU citizens – who have been systematically increasing numerically – doubling the number of required years of legal residence on the territory of the Italian State from 5 to 10 (whereas only 4 years – instead of the prior 5 – are now required from an EU citizen) and does not facilitate Italian citizenship acquisition for children of immigrants either. Children of two non-Italian parents – even if the former were born in Italy – are foreigners as well and may aspire to become Italians if they apply for Italian citizenship within a year of reaching majority (age 18) and are able to prove that they have been residing legally in Italy with no interruptions until that moment (art. 4, sect. 4). This form of highly restricted *ius soli* is an exceptional opportunity to acquire Italian citizenship, which is allowed only for children born in Italy to two non-Italian parents, whereas it is not accessible to those born in the country of origin, even if they arrived in Italy as toddlers. Becoming Italian is an obstacle course not only for adult immigrants but also for their children. The Italian nationality law is, in fact, considered one of the most restrictive laws in Western Europe (Pastore 2004; Zincone and Basili 2010).

Given the conservative traits of law no. 91/1992, the debate on the need to change it was not long in coming. Since the early 2000s, several initiatives have been promoted by the civic society and the political class (mostly center-left) to amend the Italian nationality law and facilitate citizenship acquisition – especially for minors born or raised in Italy and with two non-Italian parents – but none of them succeeded because of the systematic instability of the political system (Tintori 2018), the rigidity of the law-making procedure (which requires both Chambers of the Parliament to approve the same identical text of the bill), and the overall hostility towards immigrants in public opinion – often fostered by mass media's stereotypical representation of immigrants as a "threat" (Palidda 2011).

The last attempt at reform dates to 2015, but it ended in nothing. More recently, a referendum campaign to change the Italian citizenship law started in September 2024. In just a few days, more than 500,000 signatures for the referendum were

reached. At the end of January 2025, the Constitutional Court declared admissible the abrogative referendum proposing to halve from 10 to 5 years the period of legal residence in Italy required for non-EU foreigners to apply for Italian citizenship. However, the referendum held in early June 2025 failed to meet the required quorum, preventing the reform from taking effect. Therefore, Italian citizenship acquisition is still ruled by law no. 91/1992 and, according to legislation, the potential classification of students belonging to a family with foreign and/or immigrant origins into the category “Italian students” should still be limited. Nonetheless, this assumption cannot be taken for granted: an empirical quantification of this phenomenon and an accurate investigation of students with a foreign and/or immigrant background is required.

The importance of ethnic statistics in the field of education

In the field of migration sociology, empirical research has been detecting an evident and persistent gap between native and foreign-origin students for a long time. Findings reveal that the latter (almost) systematically display lower academic performance levels (Oecd 2019), higher rates of grade retention (Park and Sandefur 2010), greater drop-out risks (Lamb et al. 2011) and lower propensity towards more academic-oriented tracks (Murat 2012; Guyon and Huillery 2021).

Foreign students attending Italian schools are not exempted from undergoing the abovementioned educational disadvantages (Contini and Azzolini 2015; Mantovani et al. 2018). Therefore, data able to discern how many and who are students with non-Italian origins is important. Since 1997 yearly reports published by the Ministry of Education have become a relevant source of information to explore the nature of this gap. However, official school statistics might offer an imperfect overview of this phenomenon. Students are “foreigners” only if they do not hold Italian citizenship and a distinction between “second-generation” immigrants (G2s) – those who were born in the country of residence to two foreign-born parents – and “first-generation” immigrants (G1s) – those born abroad who experienced migration personally – is available only from 2011. Consequently, this definition does not include students who become Italian citizens via naturalization – yet feature foreign and/or migratory backgrounds.

The potential mismatch between students who are, for all intents and purposes, foreigners (i.e. with no Italian citizenship) and students who have foreign and/or migratory origins, though legally Italian citizens, has relevant implications for a correct understanding of their educational and social integration in the receiving society.

Up until now, in Italy, the potential underestimation (due to naturalization) of students with foreign and/or migratory origins has not been a cause for concern due to the Italian nationality law’s feature based on the right of blood: citizenship of children is the same as that of their parents, irrespective of the children’s place of birth. If this assumption might have stood in the past, when migration was at the outset, today there are good reasons to believe that the Italian nationality law’s constraints are no longer able to limit the mismatch between non-Italian students and Italian students with foreign and/or migratory origins. According to the Eurostat data, Italy has accounted for the highest share of naturalizations among the EU countries in recent years, with 131,803 naturalizations in 2020, representing 18% of the EU total.

Most of these naturalizations involve minors (Strozza et al. 2022), who automatically acquire Italian citizenship if they co-reside with (at least) one naturalized parent (*iuris communicatio*). Therefore, official school statistics – based solely on citizenship – may exclude from the “foreign” category students who are registered as Italian citizens but come from families with foreign and/or migratory origins.

Furthermore, the complexity of the student population with foreign and/or migratory origins is not only related to the process of naturalization. Italy had been a country of emigration for a long time. From the late 19th century to the 1970s, more than 27 million people left Italy in search of better living conditions in other European (chiefly France, Germany, Belgium, and Switzerland) and extra-European countries (the US, Canada, Latin America, and Australia). Because of the right of blood embedded in the Italian nationality law, individuals who are descendants of Italian emigrants can easily achieve Italian citizenship, although their experience of Italian culture is indirect since they were born and raised abroad. In 2019, 9,000 “new citizens” were descendants of Italian ancestors (IDOS 2020). Italian emigrants’ descendants should not be neglected because they might also struggle with school achievement, especially if born abroad.

Data and methods

To quantify the school body population with ethnic origins, analyses focus on the 2011 Italian Population and Housing Census, which is the last census including *all* individuals residing in Italy. Since 2018, ISTAT has been conducting yearly permanent “censuses”, which however do not involve all residents, but only representative samples. According to the United Nations’ Principles and Recommendations (Unecce 2015; United Nations 2017), the 2011 Italian Census collects both ethnic core (current citizenship and country of birth) and some non-ethnic core data (citizenship at birth). More precisely, data collection relies on the administration of a questionnaire filled in by the head of household (HH), which is the person under whose name the household is registered in the Public Records Office.¹ For each family member, an individual form, including personal data, has been filled out.² Among the various data collected, those useful for reconstructing students’ foreign and/or migratory backgrounds are related to their country of birth, current citizenship and citizenship at birth as well as their parents’. For this purpose, analyses focus on the following data:

- *country of birth* (Italy vs. abroad): in the case of the students’ attribute, it identifies those with a personal and direct immigrant background; in the case of parents’ attribute, it detects children with an inherited and indirect immigrant background. If the place of birth is “abroad”, the specification of the foreign state is available;

¹ ISTAT defines “household” as follows: “a group of individuals linked by marriage, kinship, affinity, adoption, legal guardianship or personal ties and who cohabit and share a usual place of residence (whether or not registered as local residents at the local Public Records Office)”. A household may also consist of a single individual.

² Family members are those who usually live in that housing unit, even if absent during data collection.

- *current citizenship* (Italian vs. non-Italian): for students, this information reproduces the same distinction as official school statistics and, in the case of non-Italian citizenship, it exemplifies the presence of a personal and direct foreign origin; when applied to parents, it unveils children with an inherited and indirect foreign origin. If current citizenship is non-Italian, the foreign state of citizenship is available;
- *citizenship at birth*: this information is available only if the current citizenship is Italian. Therefore, only for Italians, it is also possible to distinguish between those who have been Italian citizens since birth from those who became Italian and have a personal and direct foreign origin, though lost due to naturalization. Applied to parents, this information identifies children with hidden and indirect foreign origins.

Information on previous citizenship's foreign state is also available if the current Italian citizenship has been acquired.

Any opportunity to explore those who have simultaneously dual citizenship is denied since the census rule of thumb states that "in case of dual citizenship, the Italian one prevails over the others".

Analyses have been carried out selecting those individuals who are "son/daughter" of the: *i*) HH and spouse/partner; *ii*) HH only; *iii*) spouse/partner of the HH only. This selection, based on relationship by kinship, made retrieving information on current and previous parents' citizenship possible.³ Furthermore, analyses focus on school-aged "sons/daughters" (aged between 0 and 19). This age range includes students enrolled in non-compulsory (nursery schools and kindergarten) or compulsory education (primary, lower secondary and upper secondary schools) (Azzolini et al. 2019). The total number of reference individuals is 10,500,915.

The combination of the three dichotomous dimensions (current citizenship, previous citizenship and country of birth) attached to youths and each of their parents would generate 512 potential types. Although some of these types would be empty, to further simplify the data interpretation and consider the actual distribution of cases, information about parents' country of birth has been dichotomized into "both parents born in Italy" and "at least one parent born abroad". Additionally, information about parents' citizenship has been classified into the following five categories:

- both parents are Italian citizens since birth;
- one parent is Italian since birth and the other one is naturalized Italian (or both are naturalized Italians);
- one parent is Italian since birth and the other one is a non-Italian citizen;
- one parent is naturalized Italian and the other one is a non-Italian citizen;
- both parents are non-Italian citizens.

As a result, parents are classified into 10 types, and the combination of children and parents yields 60 types.

³To better understand the structure of the census dataset, refer to the questionnaire: <https://unstats.un.org/unsd/demographic/sources/census/quest/ITA2011enS.pdf>.

Table 1 Students (age 0–19) by current citizenship and country of birth (absolute and percentage values)

Current citizenship	Abs. values	% values	Country of birth	Abs. values	% values
Italian	9,548,344	90.93%			
Non-Italian	952,571	9.07%	Italy	550,365	57.78%
			Abroad	402,206	42.22%

Source: author's own elaboration on Istat 2011 Italian census

Table 2 Students (age 0–19) by current citizenship, citizenship at birth and country of birth (absolute and percentage values)

Type	Current citizenship	Citizenship at birth	Country of birth	3-dimensional typology	Abs. values	% values
A	Italian	Italian	Italy	Italians	9,364,866	89.18%
B	Italian	Italian	Abroad	Descendants of Italian emigrants (DIES)	76,158	0.73%
C	Italian	Non-Italian	Italy	Ex-G2 Naturalized Italians (ex-G2s)	35,902	0.34%
D	Italian	Non-Italian	Abroad	Ex-G1 Naturalized Italians (ex-G1s)	71,418	0.68%
E	Non-Italian	n.a.	Italy	Second generations (G2s)	550,365	5.24%
F	Non-Italian	n.a.	Abroad	First generations (G1s)	402,206	3.83%

n.a. = not available

Source: author's own elaboration on Istat 2011 Italian census

The 3-dimensional typology

According to the unidimensional criterion (current citizenship) applied by official statistics to quantify the foreign student population, the final tally reveals that, in 2011, 9.07% of the more than 10 million students are non-Italian citizens, whereas the great majority of them (90.93%) are Italians. Additionally, keeping this analysis in line with the most recent official statistics – which include “country of birth” as a second criterion – data would also bring to light that almost six out of ten non-Italian students (57.78%) are G2s (i.e. born in Italy), whereas the remaining 42.22% of them are not only foreigners but also immigrants (i.e. born abroad – G1s) (Table 1).

Official statistics do not provide further details and certain questions remain unanswered: is this information acceptable to correctly quantify *and* describe students who may suffer from educational disadvantages due to their foreign and/or immigrant origins?

Resorting to the information collected in the 2011 Italian census, if just the extra detail on citizenship held by students at birth is included, a more sophisticated 3-dimensional typology can be provided enabling one to distinguish 6 types (Table 2):

- *Italians*: students who are Italian since birth and were born in Italy. They have neither foreign nor immigrant origins.
- *Descendants of Italian emigrants (DIES)*: students who are Italian since birth but were born abroad. They are not foreigners but have an immigrant background. Therefore, considering Italian nationality law, they will likely be descendants of Italian emigrants.
- *Ex-G2 naturalized Italians (ex-G2s)*: students who had been born in Italy as for-

eigners but later achieved Italian citizenship. This group identifies those who are classified as “Italians” by official statistics but may face most of the same educational hurdles as their non-Italian peers due to their hidden foreign origin.

- *Ex-G1 naturalized Italians (ex-G1s)*: students who had been born abroad as foreigners but later achieved Italian citizenship. Similarly to the previous group, official statistics classify these individuals as “Italians”, despite not only their actual hidden foreign origin but also their personal immigrant background. Therefore, this group may experience even more obstacles than the previous one along the educational path due to very likely limited proficiency in the Italian language and knowledge of the education system.
- *Second generations (G2s)*: students who are non-Italian citizens but were born in Italy. They belong to the well-established category of G2s, who are more likely to experience school integration barriers than their Italian peers due to their foreign origin but could benefit from their non-directly immigrant origin in terms of fluency in speaking the Italian language and knowledge of the education system.
- *First generations (G1s)*: students who are non-Italian citizens and were born abroad. They are G1s and likely face the hardest school barriers due to their personal foreign status *and* direct immigrant origin.

The elaboration of the 3-dimensional typology apparently produces a similar outcome obtained by the simultaneous combination of current citizenship and country of birth (Table 2). Obviously, no differences are observable as regards non-Italian students (E + F) since no information on citizenship at birth is available for this group, whereas the great majority (89.18%) are still “Italians”. The citizenship at birth reveals that only a negligible (1.02%) minority of students having Italian citizenship feature former foreign status (C + D). More precisely, there are: 35,902 students (0.34%) whose foreign origin is hidden by their turning into Italian citizens (ex-G2s)⁴; 71,418 students (0.68%) whose foreign and immigrant origins are hidden by their turning into Italian citizens (ex-G1s).⁵ Finally, there are 76,158 (0.73% - B) who are descendants of Italian migrants: they experienced personal migration⁶, though Italian citizens since birth.

In a nutshell, official statistics classify over 107,000 students (C + D) as “Italians”, even though they were born non-Italian, and do not consider the migratory background of more than 76,000 students (B) who are Italian since birth but were born abroad and might face school integration problems.

⁴No information concerning *when* Italian citizenship was acquired is available.

⁵No information concerning *when* Italian citizenship was acquired and *when* migration occurred is available.

⁶No information concerning *when* migration occurred is available.

The multi-dimensional typology

The 3-dimensional typology, which only considers students' characteristics, roughly reproduces the outcome offered by official statistics. However, if the country of birth, current and previous citizenship related to students' parents are added to it, a more informative multi-dimensional typology disclosing students' foreign and/or immigrant origins will be obtained. This additional information is expected to be relevant because not only does the personal migration experience negatively affect the youth's school and social integration, but also the indirect one experienced through parents. First-generation parents may have: *i*) inadequate fluency in the natives' language, which limits their chances to interact with teachers and reduces their school engagement (Hornby and Blackwell 2018); *ii*) limited knowledge of the education system, which inhibits their awareness of school choice implications in terms of chances to pursue higher education and succeed in the labour market later (Chiswick and DebBurman 2004). Besides linguistic difficulties, children of non-native and/or immigrant parents may also face additional hindrances related to cultural aspects embedded in their ethnic group of origin (Ramirez 2003; Klein 2008).

Therefore, a correct analysis of native and non-native youths' educational careers should consider not only the personal and direct "foreign" and/or "immigrant" status but also that of their parents.

The multi-dimensional typology offers this opportunity. Results show that, in comparison with the former 3-dimensional typology, students labelled as "Italians" – who in this case correspond to having neither direct nor indirect foreign/immigrant origins – drop to 81.58% of the entire population (–7.6 percentage points).

Secondly, there are 981,353 students (9.35%) with foreign and/or immigrant origins who are completely disregarded by official statistics since they are simply classified as "Italians" (Table 3, cases included in the bold red area).⁷ In comparison with the 3-dimensional typology, this group increases by almost 798,000 units.

The multi-dimensional typology obviously unveils new categories which were hidden by the analysis of students' attributes only, and it also redefines some categories which were already identified by the 3-dimensional classification.

This is the case for the *descendants of Italian emigrants* (DIEs) who are part of the most numerous category. The multi-dimensional classification reveals that DIEs represent 3.81% of the entire population recording an increase of +3.09 percentage points, which stresses that there is a persistent effect of Italian emigrants' return migration.

Although this category was already identified by the previous classification, the multi-dimensional typology splits DIEs into three different categories: *i*) DIEs with direct immigrant origin only (i.e. born abroad); *ii*) DIEs with direct and indirect immigrant origin (born abroad and at least one parent born abroad too); *iii*) DIEs with indirect immigrant origin only (at least one parent born abroad). The great majority

⁷ Among students with foreign and/or immigrant origins, 2,952 are *atypical cases*. This residual category (0.03%) includes students who are Italian citizens whose parents are (unintelligibly) non-Italian citizens since birth. This combination is difficult to explain and – although it might be consistent if both parents were stateless and the child was born in Italy – it may even reflect material coding errors. Therefore, this category will not be examined any further.

Table 3 Students (age 0-19) by their own and their parents' current citizenship and country of birth (absolute and total percentage values)

Student's characteristics		Parents' characteristics							
Citizenship at census	Country of birth	Both Italian citizens since birth		One Italian parent since birth and one parent... non-Italian citizen		One parent naturalized Italian and one parent non-Italian citizen (or both naturalized)		Both parents non-Italian citizens	
		Both born in Italy	At least one born abroad	Both born in Italy	At least one born abroad	Both born in Italy	At least one born abroad	Both born in Italy	At least one born abroad
Italian	Italy	Italians 8,566,991 (81.58%)	Dies with indirect immigrant origin 352,213 (3.35%)	... foreign origin 11,283 (0.11%) ... foreign and immigrant origin 7,362 (0.07%)	Italian children of mixed couples with indirect... ... foreign origin 11,309 (0.11%) ... foreign and immigrant origin 179,915 (1.71%)	... foreign origin 191,059 (1.82%) ... foreign and immigrant origin 44,569 (0.42%)	Italians similar to G2s with indirect... Italians similar to G1s with direct immigrant origin and indirect...	...	At least one born abroad
Italian	Abroad	Dies with direct immigrant origin 32,487 (0.31%)	Dies with direct and indirect immigrant origin (0.15%)	... foreign origin 451 (0.004%) ... foreign and immigrant origin 8,027 (0.08%)	... foreign origin 1,140 (0.01%) ... foreign and immigrant origin 16,387 (0.16%)	... foreign origin 4 (0.00%) ... foreign and immigrant origin 1,111 (0.01%)	...	Atypical cases 2,952 (0.03%)	At least one born abroad
Italian	Non-Italian	Italian-adopted children with... ... direct foreign origin 68 (0.00%) ... indirect immigrant origin 420 (0.004%)	... direct foreign origin and indirect immigrant origin 420 (0.004%)	... foreign origin 12 (0.00%) ... foreign and immigrant origin 11,489 (0.11%)	Weak ex-G2s with direct foreign and indirect... ... foreign origin 3 (0.00%) ... foreign and immigrant origin 1,659 (0.02%)	... foreign origin 23 (0.00%) ... foreign and immigrant origin 19,854 (0.19%)	Strong ex-G2s with direct foreign origin and indirect...	...	At least one born abroad
Italian	Abroad	Italian-adopted children with... ... direct foreign and immigrant origin 30,895 (0.29%) ... indirect immigrant origin 13,446 (0.13%)	... direct and indirect foreign and immigrant origin 13,446 (0.13%)	... foreign origin 137 (0.00%) ... foreign and immigrant origin 15,723 (0.15%)	Weak ex-G1s with direct foreign and indirect... ... foreign origin 35 (0.00%) ... foreign and immigrant origin 2,985 (0.03%)	... foreign origin 35 (0.00%) ... foreign and immigrant origin 8,030 (0.08%)	Strong ex-G1s with direct foreign and immigrant origin and indirect...	...	At least one born abroad
Non-Italian	n.a.	...	Atypical cases 2,821 (0.03%)	... foreign origin 4 (0.00%) ... foreign and immigrant origin 145 (0.00%)	G2 children of mixed couples with direct foreign origin and indirect... ... foreign origin 326 (0.003%) ... foreign and immigrant origin 2,504 (0.02%)	G2 children of naturalized parents with direct foreign origin and indirect... ... foreign origin 11 (0.00%) ... foreign and immigrant origin 1,907 (0.02%)	...	G2s 545,170 (5.19%)	At least one born abroad
Non-Italian	Abroad	...	Atypical cases 2,821 (0.03%)	... foreign origin 47 (0.00%) ... foreign and immigrant origin 338 (0.003%)	G1 children of mixed couples with direct foreign and immigrant origin and indirect... ... foreign origin 134 (0.00%) ... foreign and immigrant origin 4,571 (0.04%)	G1 children of naturalized with direct foreign and immigrant origin and indirect... ... foreign origin 4 (0.00%) ... foreign and immigrant origin 2,849 (0.03%)	...	G1s 391,732 (3.73%)	At least one born abroad

n.a. = not available

Source: author's own elaboration on Istat 2011 Italian census

of DIES belong to the latter category (352,213), and they are not expected to suffer from educational disadvantages because they are Italian since birth *and* did not experience migration personally. This consideration cannot be applied to DIES students of the first two categories, who may encounter problems at school due to their first socialization abroad.

However, an in-depth exploration of DIES' geographical origins may give some valuable insights into their educational integration. Analyses reveal that most DIES' origins – regardless of their direct and/or indirect immigrant background – are rooted in traditional countries of destination for Italian emigrants, in particular Switzerland, Germany, France and the US (Table 4). Therefore – considering that students with Western countries origins do not suffer from educational disadvantages (Azzolini and Barone 2013) – DIES, as a whole, should not be problematic from the school perspective.

Italians similar to G2s and *Italians similar to G1s* – who differ respectively for the country of birth (Italy vs. abroad) only – are two categories unveiled only by the multi-dimensional classification. Although these students are classified as mere Italians by official statistics, it might be supposed that they are likely to have several similarities with their non-Italian peers in terms of school integration and performance because of their parents' foreign and/or immigrant origins. Indeed, these students are children of two originally non-Italian parents but (at least) one of them applied for Italian citizenship and, therefore, it can be assumed they passed Italian citizenship down to their offspring via *iuris communicatio*.

A more sophisticated analysis of parents' previous citizenship combined with their country of birth reveals a remarkable heterogeneity in terms of students' origins (Table 5). Focusing attention on the largest and almost unique subgroup (99.5% are Italians similar to G2s), results show that when both parents were born in Italy, students' foreign indirect origin (determined by the previous citizenship of the natu-

Table 4 The three main geographical origins of descendants of Italian emigrant parents (percentage values)

Student's citizenship and country of birth		Both parents Italian citizens since birth	
Current citizenship and citizenship at birth	Country of birth	Both born in Italy	At least one born abroad
Italian	Italy	–	<i>Italians' destination country</i> 81.8% <i>Immigrants' origin country</i> 18.3% (N=352,213) Switzerland 30.1% Germany 21.7% France 7.8%
	Abroad	<i>Italians' destination country</i> 86.4% <i>Immigrants' origin country</i> 13.6% (N=32,487) Germany 42.8% Switzerland 13.8% USA 6.5%	<i>Italians' destination country</i> 84.3% <i>Immigrants' origin country</i> 15.7% (N=16,272) Germany 29.8% Switzerland 19.5% France 6.0%

Note: geographical origins are based on student's or parents' country of birth. Source: author's own elaboration on Istat 2011 Italian census

Table 5 The three main geographical origins of Italians similar to G2s and Italians similar to G1s (percentage values)

Student's citizenship and country of birth		One parent naturalized Italian and the other one non-Italian citizen	
Current citizenship and citizenship at birth	Country of birth	Both born in Italy	At least one born abroad
Italian	Italy	ITALIANS SIMILAR TO G2s <i>Italians' destination country</i> 50.6% <i>Immigrants' origin country</i> 49.4% (N=191,059) Ex-German 6.2% Ex-Swiss 6.0% Ex-French 5.8%	<i>Italians' destination country</i> 17.2% <i>Immigrants' origin country</i> 82.8% (N=44,569) Ex-Moroccan 29.8% Ex-Albanian 9.5% Ex-Tunisian 6.6%
	Abroad	ITALIANS SIMILAR TO G2s N < 100 Too small	<i>Italians' destination country</i> 38.2% <i>Immigrants' origin country</i> 61.8% (N=1,111) Ex-Moroccan 18.3% Ex-Argentinian 7.6% Ex-Brazilian 6.9%

Note: geographical origins are based on non-Italian parent's citizenship. Source: author's own elaboration on Istat 2011 Italian census

ralized parent) is more likely recognizable in 15-EU citizenship (ex-Germans and ex-French).⁸ Access to Italian citizenship is easier for these nationalities since only 4 years of legal residence is required to apply for naturalization. In any case, these subjects are characterized by very high variability in terms of origins: only 18.0% of students have origins from the first three most widespread former citizenships of their parents. On the contrary, Italians similar to G2s, whose parents were born abroad, are more likely to belong to an extra-European family, in particular ex-Moroccans, ex-Albanians or ex-Tunisians, and these three previous citizenships gather almost one out of two students (45.9%). Although rules to obtain Italian citizenship are more demanding for non-EU citizens, these results are consistent with Italian immigration history. In 2011, not only were Albanians and Moroccans the two largest groups of immigrants, but they also belonged – along with Tunisians – to the longest-standing immigrant groups, thus fulfilling the 10-year residency requirement earlier than other national groups and increasing their children's chances of being born Italian.

Italians similar to G1s are a tiny minority and, in comparison with Italians similar to G2s, should suffer more in terms of school integration and achievement due to their direct immigrant status (i.e. born abroad). Almost all Italians similar to G1s have an indirect immigrant origin too (at least one parent born abroad), which may further afflict their educational career. Additionally, geographical origins reveal that parents of almost one out of five (18.3%) Italians similar to G1s are ex-Moroccan citizens. This socio-demographic background is not trivial at all, since evidence stresses that

⁸ Ex-Swiss must be excluded since Switzerland is not a member state of the European Union.

students with Moroccan origins show the lowest rate of pre-school attendance and are at higher risk of drop-out (Strozza 2008).

Italian children of mixed couples pertain to another sizeable category uncovered by the multi-dimensional classification. As a whole, this group includes 235,874 students (2.25%) with one Italian parent since birth and one naturalized or still non-Italian parent. Italian children of mixed couples are Italian since birth because Italian citizenship is automatically acquired even if just *one* parent is an Italian citizen (right of blood).⁹ According to the literature, this group should not experience severe educational difficulties, since their learning modes and timing, as well as their school performances, are comparable to those of Italian peers (Azzolini and Barone 2013). Nonetheless, this conclusion might be misleading since it does not consider the heterogeneity embedded in parental foreign and/or immigrant backgrounds. Empirical evidence has stressed that children of mixed couples perform as well as natives if the non-Italian parent comes from a Western country, whereas they undergo higher risks of dropout and are more likely to access non-academic tracks if the non-Italian parent is non-Western (Azzolini et al. 2017).

According to data, the most numerous subcategory (179,915) of Italian children of mixed couples is expected to face more school obstacles (Table 6). These are students born in Italy with indirect foreign and immigrant origins because, if one parent is Italian since birth, the other one was born abroad and is still non-Italian. In almost seven out of ten cases (67.3%), this subgroup has origins retraceable in a typical country left by immigrants residing in Italy. Approximately one out of five has Romanian or Polish origins. The same considerations can be applied to the smaller group (11,309) of Italian children of mixed couples born in Italy with both parents born in Italy and one of them is Italian since birth, whereas the other one is still non-Italian.

Other subgroups of Italian children of mixed couples should encounter fewer educational difficulties. In particular, the 11,283 Italian children of mixed couples born in Italy with both parents born in Italy and one of them naturalized Italian should be the least afflicted from educational difficulties in comparison with fully Italians. Not only does this subgroup just display indirect foreign origin produced by the naturalized parent's citizenship at birth, but it also has predominantly Western European origins (Germany, Switzerland or France). Even Italian children of mixed couples born abroad – despite having experienced migration– should not undergo peculiar school difficulties. By and large, more than half of them have origins in a country of destination for Italian emigrants and quite frequently have origins in a Western European country (Germany, Switzerland, France or Spain).

Italian children of mixed couples born in Italy with one naturalized parent and at least one parent born abroad (7,362), on the other hand, can be placed in-between. Just over half of them (56.5%) have origins in countries left by immigrants moving to Italy (in particular Romania and Morocco), and a little less than the other half (43.5%) have origins in a country of destination for Italian emigrants.

If the 3-dimensional typology already allowed the identification of naturalized Italian students, distinguishing between ex-G2s and ex-G1s, the multi-dimensional

⁹These individuals most likely have dual citizenship, but census data does not collect this extra information.

Table 6 The three major geographical origins of Italian children of mixed couples (percentage values)

Student's citizenship and country of birth		One Italian parent since birth and one naturalized Italian parent		One Italian parent since birth and one non-Italian citizen parent	
Current citizenship and citizenship at birth	Country of birth	Both born in Italy	At least one born abroad	Both born in Italy	At least one born abroad
Italian	Italy	Italians' destination country 65.7% Immigrants' origin country 34.3% (N = 11,283)	Italians' destination country 43.5% Immigrants' origin country 56.5% (N = 7,362) (N = 7,362)	Italians' destination country 31.6% Immigrants' origin country 68.4% (N = 11,309)	Italians' destination country 32.7% Immigrants' origin country 67.3% (N = 179,915)
		Ex-German 14.2%	Ex-Argentinian 7.7%	Romanian 13.6%	Romanian 13.0%
		Ex-Swiss 11.0%	Ex-Romanian 5.7%	Polish 7.5%	Polish 7.6%
Abroad		Ex-French 7.7%	Ex-Moroccan 5.6%	German 6.0%	German 5.3%
		Italians' destination country 53.0% Immigrants' origin country 47.0% (N = 451)	Italians' destination country 56.7% Immigrants' origin country 43.3% (N = 8,027)	Italians' destination country 57.5% Immigrants' origin country 42.5% (N = 1,140)	Italians' destination country 68.4% Immigrants' origin country 31.6% (N = 16,387)
		Immigrants' origin country 47.0% (N = 451)	Immigrants' origin country 43.3% (N = 8,027)	Immigrants' origin country 42.5% (N = 1,140)	Immigrants' origin country 31.6% (N = 16,387)
	Ex-German 8.7%	Ex-Swiss 10.2%	German 10.7%	German 10.7%	German 14.5%
	Ex-Brazilian 7.3%	Ex-Argentinian 7.2%	French 7.1%	French 7.1%	French 8.1%
	Ex-Swiss 6.4%	Ex-German 5.9%	Brazilian 6.6%	Brazilian 6.6%	Spain 7.1%

Note: geographical origins are based on the citizenship at birth of the naturalized parent and the citizenship of the non-Italian parent. Source: author's own elaboration on Istat 2011 Italian census

classification outlines the multifaceted traits of these two groups (see darker grey cells in Table 3).

First, this more structured classification identifies *strong ex-G2s and ex-G1s* who share direct foreign origin – which is currently concealed by the acquisition of Italian citizenship – and indirect foreign and immigrant origins inherited from parents, who are both naturalized Italians or one is still non-Italian and almost all parents were born abroad too. According to data, these two subgroups are rather internally homogeneous: in both cases, the origins of most of them pertain to typical origin countries left by immigrants residing in Italy (respectively 98.7% and 77.8%) (Table 7). Almost one out of two strong ex-G2s and more than one out of three strong ex-G1s have Moroccan or Albanian origins, that is they belong to groups who arrived in Italy first and that still today comprise the most numerically representative groups.

Second, the multi-dimensional classification also provides an opportunity to pinpoint *weak ex-G2s and ex-G1s* characterized by having just one parent who is Italian since birth and the other one is naturalized Italian or still non-Italian. Apparently, these cases might seem more similar to the previously mentioned Italian children of mixed couples than strong ex-G2s and ex-G1s, if it were not for the crucial fact that the student's citizenship at birth was non-Italian. This detail is hardly trivial. It might suggest that the Italian parent since birth of weak ex-G2s and ex-G1s could be most likely a non-biological parent, who could not immediately transfer his/her Italian citizenship to the minor and co-habitant step-child. If this assumption were correct, the offspring's acquisition of Italian citizenship would not be automatic and require more time. Indeed, perhaps the naturalization of the biological parent was facilitated by the marriage with an Italian (*ius connubi*) and, in turn, simplified the subsequent transmission of the new citizenship to the underage child. Although this observation cannot be tested with census data, the exploration of the previous and current citizenship as regards, respectively, the naturalized and non-Italian parent reveals that weak ex-G2s are a homogeneous group: almost all of them (97.4% and 92.7%) have origins in typical departure countries for immigrants in Italy – predominantly Morocco, Albania and Tunisia (54.2%) – the same as their strong ex-G2 peers with two foreign-born parents.

On the contrary, weak ex-G1s are more dispersed in terms of origins: one-third (33.4%) among those with a naturalized Italian parent born abroad and almost half among those with a parent who is still non-Italian and was born abroad (49.1%) come from traditional destination countries of Italian migrants, in particular Argentina and Brazil, even if a significant proportion of them have origins from Romania, a country of departure for immigrants headed to Italy. Despite these differences, results point out that both weak ex-G2s and ex-G1s with an Italian parent since birth have non-Western cultural origins in comparison with Italian children of mixed couples, who tend to feature Western cultural origins. This aspect suggests that their process of school integration could be affected by barriers very similar to those experienced by non-Italian peers (Table 8).

To conclude, it is remarkable that, although the multi-dimensional typology does not produce a significant numerical change as regards naturalized ex-G2 Italian students in comparison with the 3-dimensional classification, a radical reduction is observed among ex-G1 naturalized Italians, who decrease from almost 71,500

Table 7 The three major geographical origins of strong ex-G2s and strong ex-G1s (percentage values)

Student's citizenship and country of birth		One parent naturalized Italian and the other one non-Italian citizen (or both naturalized)	
Current citizenship	Citizenship at birth	Country of birth	Both born in Italy / At least one born abroad
			STRONG EX-G1s
			N < 100 too small
			<i>Italians' destination country</i> 1.3%
			<i>Immigrants' origin country</i> 98.7%
			<i>Immigrants' origin country</i> 98.7% (N=19,854)
		Italy	Ex-Moroccan 35.7%
			Ex-Albanian 15.8%
			Ex-Tunisian 7.1%
Italian	Non-Italian		STRONG EX-G2s
			N < 100 too small
			<i>Italians' destination country</i> 22.6%
			<i>Immigrants' origin country</i> 77.8% (N=8,030)
		Abroad	Ex-Moroccan 25.4%
			Ex-Albanian 9.6%
			Ex-Argentinian 8.6%

Note: geographical origins are based on the citizenship at birth of the student. Source: author's own elaboration on Istat 2011 Italian census

to almost 27,000 units (-62.3%). This shrinkage is especially due to a substantial reclassification of ex-G1 naturalized Italians into the new *Italian-adopted children with direct foreign and immigrant origin* category. Indeed, 44,339 students formerly labelled “ex-G1s” have turned into “Italian-adopted children” (Tables 3 and 9).

The Italian-adopted children category comprises students who are currently Italian but were non-Italian citizens at birth and whose parents are both Italian citizens since birth. It seems reasonable to assume that these children turned into Italians after an international adoption procedure. Law no. 91/1992 states that the minor adopted by an Italian citizen automatically becomes Italian but the adoption must be recognized by the Italian Court for Minors and then recorded in the registers of the Italian municipality of residence. Official statistics stress that the phenomenon of international adoptions is widespread in Italy: not only does Italy rank worldwide behind only the US in terms of the annual number of adoptions, but it also records the highest rate of adoption – only in 2011, more than 4,000 minors obtained authorization to enter Italy for international adoption purposes. The largest group of international adopted children come from the Russian Federation (16.0%) (CAI 2016). An analysis of students' previous citizenship points out that most Italian-adopted children were born abroad and almost one out of six are originally from the Russian Federation. This result is consistent with official statistics and the identification of this group may be relevant for educational purposes. Indeed, on the basis of their age of arrival in Italy – which varies considerably according to the country of origin (CAI 2016) – school integration may be problematic, and there is good reason to think that this group should not be embedded in the macro “Italian students” category.

Table 8 The three main geographical origins of weak ex-G2s and weak ex-G1s (percentage values)

Current citizenship	Citizenship at birth	Country of birth	One Italian parent since birth and the other one naturalized Italian		One Italian parent since birth and the other one non-Italian	
			Both born in Italy	At least one born abroad	Both born in Italy	At least one born abroad
Italian	Non-Italian	Italy	WEAK EX-G2s			
			N < 100 too small	Italians' destination country 2.6% Immigrants' origin country 97.4% (N = 11,489)	At least one born abroad	Italians' destination country 7.3% Immigrants' origin country 92.7% (N = 1,659)
			Ex-Moroccan 32.8%		Ex-Moroccan 24.1%	
			Ex-Albanian 18.3%		Ex-Albanian 8.1%	
			Ex-Tunisian 5.4%		Ex-Tunisian 6.0%	
Italian	Non-Italian	Abroad	WEAK EX-G1s			
			N < 100 too small	Italians' destination country 33.4% Immigrants' origin country 66.6% (N = 15,723)	At least one born abroad	Italians' destination country 49.1% Immigrants' origin country 50.9% (N = 2,985)
			Ex-Argentinian 11.4%		Ex-Brazilian 9.5%	
			Ex-Brazilian 8.2%		Ex-German 7.6%	
			Ex-Romanian 7.0%		Ex-Romanian 7.4%	

Note: geographical origins are based on the citizenship at birth of the student. Source: author's own elaboration on Istat 2011 Italian census

Table 9 The three main geographical origins of Italian-adopted children (percentage values)

Student's citizenship and country of birth			Both parents Italian since birth citizens	
Current citizenship	Citizenship at birth	Country of birth	Both born in Italy	At least one born abroad
		Italy	N < 100 too small	<i>Italians' destination country 30.2%</i> <i>Immigrants' origin country 69.8%</i> (N=420) Ex-Moroccan 10.0% Ex-Swiss 6.9% Ex-Albanian 5.5%
Italian	Non-Italian	Abroad	<i>Italians' destination country 24.7%</i> <i>Immigrants' origin country 75.3%</i> (N=30,893) Ex-Russian 16.7% Ex-Ukrainian 12.0% Ex-Colombian 8.9%	<i>Italians' destination country 24.1%</i> <i>Immigrants' origin country 75.9%</i> (N=13,446) Ex-Russian 14.9% Ex-Ukrainian 12.7% Ex-Brazilian 8.5%

Note: geographical origins are based on the citizenship at birth of the student. Source: author's own elaboration on Istat 2011 Italian census

The multi-dimensional typology: forthcoming Italian citizens?

Analyses discussed in the previous paragraph have revealed that more than 9% of students with foreign and/or immigrant origins are concealed by official statistics and classified as “Italians”. In addition to this merit, the multi-dimensional typology has at least another virtue: it helps identify the number and the characteristics of students who are more likely to acquire Italian citizenship in the near future and, hence, probably disappear from official statistics.

On the basis of the 3-dimensional typology, non-Italian students are 952,571 (9.07%) of which 57.78% are G2s. Resorting to the multi-dimensional typology, analysis of parents' origins suggests that “only” 936,921 students may still be classified as indisputably “non-Italians”: 545,170 G2s and 391,742 G1s (Tab. 3). In the transition from the 3- to the multi-dimensional typology, the great majority of non-Italian students are still non-Italian, and their origins are very dispersed in several different nationalities (Table 10). Their own and their parents' foreign citizenship makes it unlikely that they will become Italian citizens shortly.

The multi-dimensional typology reveals that almost 13,000 non-Italian students (0.12%) may become Italian citizens soon and have been grouped into four new categories: *i*) second-generation children of mixed couples; *ii*) first-generation children of mixed couples; *iii*) second-generation children with one parent naturalized Italian and the other one non-Italian (or both naturalized); *iv*) first-generation children with one parent naturalized Italian and the other one non-Italian (or both naturalized) (Table 3, cases included in the bold green area).¹⁰

¹⁰ A third category includes children who are non-Italian citizens, despite having Italian parents since birth. This category is similar, but opposite, to that one including children who are Italian citizens since birth despite their non-Italian parents. Students from this group have been classified into a residual atypical class (2,821 cases, corresponding to 0.03% of the entire population).

Table 10 The first ten main citizenships of non-Italian students (age 0–19) by generation (percentage values)

Citizenship	Total	G1s	G2s
Romanian	17.9%	23.2%	14.2%
Albanian	13.7%	12.4%	14.6%
Moroccan	13.4%	9.7%	16.0%
Chinese	5.9%	3.8%	7.4%
Indian	3.5%	3.7%	3.3%
Philippine	3.0%		3.8%
Tunisian	2.9%		4.0%
Moldavian	2.7%		
Pakistani	2.6%	3.5%	
Egyptian	2.5%		2.7%
Ukrainian		3.2%	
Ecuadorean		3.0%	
Macedonian		2.9%	
Bangladeshi			2.3%
Nigerian			2.3%
Others	31.9%	34.6%	29.4%
Total	100%	100%	100%
(N)	(936,912)	(391,742)	(545,170)

Source: author's own elaboration on Istat 2011 Italian census

G2 and G1 children of mixed couples are the largest groups of non-Italian students who may potentially turn into Italian citizens soon. This category differs from the previous analogous class of *weak ex-G2s and ex-G1s* only for the student's current citizenship, which is still non-Italian. It might be assumed that these students are non-Italian citizens because the Italian parent since birth may be a step-parent and the time required for the transmission of the Italian citizenship to the biological parent (and, hence, to the child) has not passed yet.¹¹

Almost all G2 and G1 children of mixed couples have indirect foreign and immigrant origins, whereas those with no indirect immigrant origin (both parents born in Italy) are numerically insignificant. Moreover, almost nine out of ten G2 and G1 children of mixed couples come from a typical country left by immigrants residing in Italy, and the most frequent origins concern countries of Eastern Europe (Albania, Romania, Ukraine and Poland) and Morocco. An exception is detectable among G1 children of mixed couples with one non-Italian parent: one out of four (24.7%) come from a country receiving Italian emigrants (Brazilians are the third national group after Romanians and Ukrainians) (Table 11).

Though numerically little significant, G2 and G1 children of one naturalized Italian parent and the other one still non-Italian (or both naturalized) are hypothetically more likely to turn into Italian citizens as long as the naturalized parent is a biological one. Indeed, a child's acquisition of Italian citizenship is automatic, but the following conditions must be satisfied: *i*) the child must be under 18 of age; *ii*) there must be a filial relationship between the child and naturalized parent; *iii*) the child must cohabit

¹¹ According to law no. 91/1992, the non-Italian spouse married to an Italian citizen can apply for Italian citizenship by marriage (*ius connubi*) after two years from the marriage/civil union. For couples who cohabit and whose union has not been formalized, this opportunity is unavailable.

Table 11 The three main citizenships of G2 and G1 children of mixed couples (percentage values)
 Student's citizenship and country of birth One Italian parent since birth and the other one naturalized Italian One Italian parent since birth and the other one non-Italian citizen

Current citizenship	Citizenship at birth	Country of birth	Both born in Italy	At least one born abroad	Both born in Italy	At least one born abroad		
Non-Italian n.a.	Italy	Italy	G2 CHILDREN OF MIXED COUPLES					
			N < 100 too small	Italians' destination country 10.5%				
				Immigrants' origin country 89.5%				
				(N = 143)				
				Albanian 18.2%				
				Moroccan 17.5%				
				Dominican 7.0%				
				G1 CHILDREN OF MIXED COUPLES				
				N < 100 too small	Italians' destination country 13.9%			
					Immigrants' origin country 86.1%			
		(N = 338)						
		Albanian 15.1%						
		Moroccan 10.7%						
		Romanian 6.2%						
			Italians' destination country 6.7%					
			Immigrants' origin country 93.3%					
			(N = 326)					
			Bosnian 24.2%					
			Chinese 17.2%					
			Romanian 7.1%					
				Italians' destination country 24.7%				
				Immigrants' origin country 75.3%				
				(N = 4,571)				
				Romanian 21.8%				
				Ukrainian 8.6%				
				Brazilian 6.3%				

n.a. = not available

Source: author's own elaboration on Istat 2011 Italian census

Table 12 The three main citizenships of non-Italian children with one naturalized Italian parent and the other one non- Italian (percentage values)

Student's citizenship and country of birth			One naturalized Italian parent and the other one non-Italian (or both naturalized)	
Current citizenship	Citizen-ship at birth	Country of birth	Both born in Italy	At least one born abroad
		Italy	G2s OF NATURALIZED PARENTS	
			N < 100 too small	<i>Immigrants' destination country</i> 3.6%
				<i>Immigrants' origin country</i> 96.4% (N=1,907)
				Moroccan 17.4%
				Albanian 10.8%
				Bosnian 7.5%
Non-Italian	n.a.	Abroad	G1s OF NATURALIZED PARENTS	
			N < 100 too small	<i>Italians' destination country</i> 11.5%
				<i>Immigrants' origin country</i> 88.5% (N=2,849)
				Moroccan 12.1%
				Dominican 10.8%
				Albanian 6.4%

n.a. = not available

Source: author's own elaboration on Istat 2011 Italian census

with the parent in a stable manner. If this group turned into Italian citizens, official statistics would lose 4,771 foreign students (chiefly hailing from Morocco, Albania, the Dominican Republic and Bosnia: Table 12) with likely actual difficulties in terms of school integration.

Although this group of potential Italian citizens is numerically negligible, its significance should not be underestimated. According to recent official statistics, the number of minors who are turning into Italian citizens has been increasing in the last few years (Conti et al. 2022). Therefore, it is likely that official school statistics will cover, under the label of "Italians", a greater number of students with an actual direct and indirect foreign and/or immigrant background.

Conclusions

In the last few decades, the implementation of policies aimed at contrasting ethnic inequalities has become a crucial topic in the political agenda of many Western European countries; the consequent need to collect reliable data on ethnic origins is increasingly imperative. A tangible effort in this direction is given by the "Recommendations for Population and Housing Censuses" published by the United Nations, which encourage the collection of data on ethnic origins and, for this purpose, identify country of birth and citizenship as core topics to be included in every census, to which other ethnic variables may optionally be added.

To better understand if, and to what extent, official statistics underestimate people's foreign and/or immigrant origins, the 2011 Italian Census data has been explored. The

Italian case is particularly intriguing since the very restrictive nationality law should make non-native citizens' acquisition of Italian citizenship very difficult. Analyses try to unveil the ethnic origins of a specific subgroup: school-age students. This selection has a twofold advantage. From a theoretical perspective, students with foreign and/or immigrant origins are more likely to experience several obstacles along their educational path in comparison with their native peers and an accurate estimation of this population is relevant to promoting policies aimed at reducing educational inequality. From a methodological standpoint, students have been privileged because the questionnaire offers the extraordinary opportunity to investigate direct *and* indirect ethnic origins only for those individuals who are "children" of the household (or his/her spouse/partner).

Combining the information on students' *and* their parents' citizenship at the census, citizenship at birth and country of birth, analyses reveal that official statistics classify almost 1 million students (9.35%) with a foreign and/or immigrant origin as Italian citizens. Furthermore, the multi-dimensional typology highlights the significant heterogeneity of this group in terms of origins, potentially influencing their educational integration in different ways.

"*Naturalized Italians*" – those born non-Italian citizens and later naturalized Italians – are a composite group of more than 107,000 students, chiefly born abroad and hence immigrants. The multi-dimensional typology unveils that most of them belonging to "strong ex-G2s and ex-G1s" and "weak ex-G2s and ex-G1s" have origins in typical countries of departure for immigrants who selected Italy as a place of destination: Morocco, Albania, Tunisia and Romania. Almost one out of three of these naturalized youths, despite living with one Italian adult since birth, have a partially non-Western cultural origin. The hidden personal and indirect foreign and/or immigrant background of these youths emphasizes the limits and inaccuracy of official statistics. Indeed, it is possible to assume that these youths, though Italian citizens, will face as many linguistic and cultural barriers as their foreign peers rather than Italians (with no foreign and immigrant origins) and will be more likely to experience almost as many educational challenges as their non-Italian peers.

Among naturalized Italian students, the multi-dimensional typology also detects (probable) "adopted children". These are Italian citizens at the time of the census but were born foreigners and their parents are both Italian citizens since birth. This information suggests children's naturalization may have occurred because of international adoption and this hypothesis seems to be confirmed by students' previous citizenship analyses: the first three origins – Russian Federation, Ukraine and Colombia – are consistent with countries more involved in international adoptions towards Italy. The academic proficiency of "adopted children" is expected to align with that of their Italian peers. However, it is possible that their educational trajectory may be affected by their foreign and/or immigrant origins, particularly if they arrived in Italy during adolescence.

Official statistics also hide a larger group of approximately 237,000 students under the label of "Italians". Unlike the previous groups, these youths are Italian since birth, but the investigation of their parental origins suggests they are, according to their country of birth, respectively, "similar to G2s" or "similar to G1s". These students had the opportunity to become Italian citizens since at least one foreign par-

ent had achieved Italian citizenship and passed it down to their child. Nonetheless, these youths are children of two originally non-Italian parents and are supposed to be educated and raised on the basis of the cultural values and norms of the country of origin. In particular, youths “similar to G2s” belong to an extra-European family and the first three origins have their roots in countries left by the longest-standing immigrants residing in Italy: Morocco, Albania and Tunisia. Considering their origins, these students may experience several school difficulties as their non-native peers even though they are since-birth Italian citizens born in Italy.

The multi-dimensional typology also unveils that almost 236,000 students are “Italian children of mixed couples”: one Italian parent since birth and one naturalized or still non-Italian. Although empirical findings suggest that children of mixed couples are more similar to natives than non-natives, the multi-dimensional typology reveals a notable heterogeneity in terms of origins. Italian children of mixed couples born abroad are more likely to have Western origins (Germany, Switzerland and France) and, therefore, in all likelihood may face no relevant difficulties at school. On the contrary, the origins of Italian children of mixed couples born in Italy are more diverse mixing origins, especially from Eastern European countries (Romania and Poland) and Western European countries (Germany, France and Switzerland).

The multi-dimensional typology has also brought to light a conspicuous number of youths (more than 400,000) who are “descendants of Italian emigrants”. These students will likely not experience severe school disadvantages since they belong to an Italian family, even if they have an immigrant origin inherited by the parent(s) born abroad. Most of them have Western origins (Germany, Switzerland and France) and never experienced migration personally. Nonetheless, it cannot be taken for granted that the small group of 48,759 descendants of Italian emigrants born abroad will not face any school hindrances along their educational path due to their personal experience of migration.

Unfortunately, census data does not contain any information about the age on arrival in Italy of individuals born abroad. This detail would be very informative to explore potential educational barriers experienced by migrants. However, even the census surveys of more recent years have yet to collect this information.

Results obtained from the multi-dimensional typology may appear relatively insignificant: “only” one out of ten youths with foreign and/or immigrant origins are classified as Italian citizens by official statistics, and just three out of ten are more likely to face challenged barriers along their educational career due to their non-Western background or origin from a common country of departure for immigrants residing in Italy. However, this conclusion may be incorrect.

From 2011 to today, the foreign population residing in Italy has numerically increased and more than 360,000 minors have achieved Italian citizenship. Before naturalization, most of the latter were Moroccans (23.10%) and Albanians (16.78%) and belonged to those national groups with a particularly strong inclination toward obtaining Italian citizenship. These findings encourage experts interested in exploring educational inequalities to become more sensitive to collecting information on youths’ foreign and/or immigrant origins to avoid the risk of misclassification based on their current citizenship only.

The multi-dimensional typology discussed in this article may be a useful tool to detect youths' foreign and/or immigrant origins in Italy and elsewhere. However, this methodological effort is not an end in itself; it has uncovered that beneath the official label of "Italian student", there are school-age youths with direct and/or indirect foreign and/or immigrant origins, which may still influence their educational trajectory. The multi-dimensional typology has also proved capable of providing the information needed to predict how many foreign youths are likely to become Italian in the short-medium term. Additionally, the country of origin is an extra unit of information that helps improve this prediction. Not all national groups display the same propensity and intention to obtain Italian citizenship, even if the migratory project does not envisage coming back to the country of origin. This is particularly true for those national groups belonging to the origin countries where dual citizenship is forbidden, and the acquisition of Italian (or other) citizenship implies losing the original one. It is no coincidence that, although the Chinese are numerically the fourth largest foreign group in Italy, very few have acquired Italian citizenship.

Empirical findings suggest that the extra effort to collect more precise and detailed data on youths' foreign and/or immigrant origins may be worth the effort.

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Data availability 2011 Italian Census data are protected and are not available due to privacy laws. The processed data sets are available at ISTAT's Laboratory for the Analysis of Elementary Data (ADELE) and the author has only access to the syntax developed to perform data analyses. According to ISTAT instructions, the following statement must be included: *Data analysed in this article are from the Italian National Statistics Institute (ISTAT) and refer to the 2011 Italian Census. Analyses were carried out at ISTAT's Laboratory for the Analysis of Elementary Data (ADELE) in compliance with the regulations on the protection of statistical confidentiality and personal data protection. The results and opinions expressed in this article are solely of the author and do not necessarily reflect the views of Istat. Analyses were carried out without using weights.*

Declarations

Ethical approval No conflicts of interest to disclose. This study was granted an exemption from requiring ethical approval since analyses have been carried out at ISTAT's Laboratory for the Analysis of Elementary Data (ADELE) personally and there is no way to access this data except by physically going to ISTAT's Laboratory for the Analysis of Elementary Data and working on a PC remotely without any possibility of saving the dataset on a personal computer. According to ISTAT instructions, the following statement must be included: *Data analysed in this article are from the Italian National Statistics Institute (ISTAT) and refer to the 2011 Italian Census. Analyses were carried out at ISTAT's Laboratory for the Analysis of Elementary Data (ADELE) in compliance with the regulations on the protection of statistical confidentiality and personal data protection. The results and opinions expressed in this article are solely of the author and do not necessarily reflect the views of Istat. Analyses were carried out without using weights.*

Informed consent No informed consent was necessary since, as explained in the “Ethical approval” section, analyses have been carried out at ISTAT’s Laboratory for the Analysis of Elementary Data (ADELE) according to the strict rules of the Italian National Institute of Statistics.

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References

- 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. *Res Soc Stratif Mobil* 31:82–96. <https://doi.org/10.1016/j.rssm.2012.11.002>
- Azzolini D, Mantovani D, Santagati M (2019) Italy: four emerging traditions in immigrant education studies. In: Stevens P, Dworkin AG (eds) *The Palgrave handbook of race and ethnic inequalities in education*. Palgrave, London, pp 695–745
- Azzolini D, Guetto R, Madia JE (2017) Do mixed unions foster integration? The educational outcomes of mixed-parentage children in Italy. *J Int Migr Integr* 18:1033–1060. <https://doi.org/10.1007/s12134-017-0521-5>
- Bonifazi C, Gallo G, Strozza S, Zindato D (2008) Popolazioni straniere e immigrate: definizioni, categorie e caratteristiche. *Studi emigrazione XLV*(171):519–548
- CAI (2016) Dati e prospettive nelle adozioni internazionali, from https://www.commissioneadozioni.it/media/sajfclcr/51c46_report_annuale_cai_2016_26072018.pdf
- Chao R (2000) The parenting of immigrant Chinese and European American mothers: relations between parenting styles, socialization goals, and parental practices. *J Appl Dev Psychol* 21(2):233–248. [http://doi.org/10.1016/S0193-3973\(99\)00037-4](http://doi.org/10.1016/S0193-3973(99)00037-4)
- Chiswick BR, DebBurman N (2004) Educational attainment: analysis by immigrant generation. *Econ Edu Rev* 23(4):361–379
- Contini D, Azzolini D (2015) Performance and decisions: immigrant-native gaps in educational transitions in Italy. *J Appl Stat* 43(1):98–114. <https://doi.org/10.1080/02664763.2015.1036845>
- European Commission (2017) Analysis and comparative review of equality data collection practices in the European Union. Data Collection in the Field of Ethnicity, Publication Office
- European Commission (2021) Guidance note on the collection and use of equality data based on racial or ethnic origin. European Union, Brussels
- Ford C, Harawa NT (2010) A new conceptualization of ethnicity for social epidemiologic and health equity research. *Soc Sci Med* 71(2):251–258. <https://doi.org/10.1016/j.socscimed.2010.04.008>
- Guyon N, Huillery E (2021) Biased aspirations and social inequality at school: evidence from French teenagers. *Econ J* 131(634):745–796. <https://doi.org/10.1093/ej/ueaa077>
- Heath A, Rothson C, Kilpi E (2008) The second generation in Western Europe: education, unemployment, and occupational attainment. *Annu Rev Sociol* 34:211–235. <https://doi.org/10.1146/annurev.soc.34.040507.134728>
- Hornby G, Blackwell I (2018) Barriers to parental involvement in education: an update. *Educ Rev* 70(1):109–119. <https://doi.org/10.1080/00131911.2018.1388612>
- IDOS (2020) Dossier statistico immigrazione. Centro studi e ricerche IDOS, Roma
- Juan LP, Moffit U, Schachner MK, Pevec S (2021) Understanding ethnic-racial identity in a context where “race” is taboo. *Identity* 21(3):185–199. <https://doi.org/10.1080/15283488.2021.1932901>

- Klein A (2008) From Mao to Memphis: chinese immigrant fathers' involvement with their children's education. *Sch Comm J* 18(2):91–117
- Lamb S, Markussen E, Teese R, Sandberg N, Polese J (2011) School dropout and completion. *International Comparative Studies in Theory and Policy*, Springer, New York
- Mantovani D, Gasperoni G, Albertini M (2018) Higher education beliefs and intentions among immigrant-origin students in Italy. *Ethnicities* 4:603–626. <https://doi.org/10.1177/1468796818777549>
- Murat M (2012) Do immigrant students succeed? Evidence from Italy and France. *Glob Econ J* 106(3):416–438. <https://doi.org/10.1515/1524-5861.1872>
- OECD (2019) PISA 2018 results (volume II): where all students can succeed. OECD, Paris
- Palidda S (ed) (2011) Racial criminalization of migrants in the 21st. Century. Ashgate, Farnham
- Park H, Sandefur GD (2010) Educational gaps between immigrant and native students in Europe: The role of grade. In: Dronkers J (ed) *Quality and inequality of education: Cross-national perspectives*. New York: Springer, pp 113–136. http://dx.doi.org/10.1007/978-90-481-3993-4_5
- Pastore F (2004) A community out of balance: nationality law and migration politics in the history of post-unification Italy. *J Mod Ital Stud* 9(1):27–48. <https://doi.org/10.1080/1354571042000179173>
- Ramirez AYF (2003) Dismay and disappointment: parental involvement of Latino immigrant parents. *The Urban Review* 35(2):93–110. <https://doi.org/10.1023/A:1023705511946>
- Rallu JL, Piché V, Simon P (2006) Demography and ethnicity: an ambiguous relationship. In: Caselli G, Vallin J, Wunsch G (eds) *Demography: analysis and synthesis. A treatise in population studies*. Elsevier Academic Press, pp 531–549
- Roig E (2017) Uttering “race” in colorblind France and post-racial Germany. In: Fereidooni K, El M (eds) *Rassismuskritik und Widerstandsformen*. Springer VS, Wiesbaden, pp 613–628
- Simon P (2012) Collecting ethnic statistics in Europe: a review. *Ethnic Racial Stud* 35(8):1366–1391. <https://doi.org/10.1080/01419870.2011.607507>
- Simon P, Piché V, Gagnon AA (2015) *Social statistics and ethnic diversity: cross-national perspectives in classifications and identity politics*. Springer, New York
- Simon P (2017) The failure of the importation of ethno-racial statistics in Europe: debates and controversies. *Ethnic Racial Stud* 40(13):2326–2332. <https://doi.org/10.1080/01419870.2017.1344278>
- Strozza S (2008) Partecipazione e ritardo scolastico dei ragazzi stranieri e d'origine straniera. *Studi Emig* 171:699–722
- Strozza S, Conti C, Tucci E (2022) *Nuovi italiani. Diventare italiani nell'era della globalizzazione*. Il Mulino, Bologna
- Tintori G (2018) *Ius soli the Italian way: the long and winding road to reform the citizenship law*. *Contemp Ital Polit* 10(4):434–450. <https://doi.org/10.1080/23248823.2018.1544360>
- UNECE (United nations economic commission for Europe) (2015) *Conference of European statisticians recommendations for the 2020 censuses of population and housing*
- United Nations (2017) *Principals and recommendations for population and housing censuses*. United Nations, New York and Geneva
- United Nations Statistics Division (2003) *Ethnicity: a review of data collection and dissemination*. United Nations, New York and Geneva
- Williams M, Husk K (2013) Can we, should we, measure ethnicity? *Int J Soc Res Methodol* 16(4):285–300. <https://doi.org/10.1080/13645579.2012.682794>
- Zincone G (2006) *Familismo legale. Come non diventare cittadini italiani*. Laterza, Roma-Bari
- Zincone G, Basili M (2010) *Country report: italy*. GLOBALCIT: EUDO Citizenship Observatory, 2010/35. <https://hdl.handle.net/1814/19619>
- Zolberg AR (1987) *Wanted but not welcome: alien Labor in Western development*. In: Alonso W (ed) *Population in an interacting world*. Harvard University Press, Cambridge, pp 36–73