

Chapter 5: Socioeconomic Inequality and Student Outcomes in Italy

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Abstract

This chapter assesses inequalities in educational outcomes in Italy linking their evolution to changes in the Italian educational system. We analyse how track choice and performance in PISA tests among 15-year olds are influenced by social origins. We consider how inequalities by social origins are intertwined with inequalities by immigrant status and area of residence. We detect a small reduction of inequalities in participation in the academic track and a reduction of inequality in achievement limited to the northern regions, but overall our results show a high inertia in the reproduction of social inequalities. These results are observed during a period where the reduction of inequalities in education has remained a marginal issue in the policy debate as well as a marginal target of educational policies.

The Italian Educational System: An Overview

This chapter assesses the evolution of social inequalities in compulsory education for the period 2000-2015 in Italy. Drawing on PISA data corresponding to track choices and student skills in three domains, we analyze recent trends in the disadvantage of students from low-educated families and the interplay between family background, immigrant status, and territorial inequalities, which are particularly pronounced in this country. In this section we quickly sketch the main characteristics of the Italian educational system, while in section 2 we summarize the key findings of empirical research concerning the educational disadvantages of low-SES students in Italy. In section 3 we present fresh evidence concerning the evolution of these educational inequalities over the past two decades, and in section 4 we relate these results to the evolution of the policy context. Section 5 provides some concluding remarks.

In Italy, compulsory education starts at the age of 6, but pre-primary education for children aged 3 to 5 is quasi-universalistic, since attendance rates are above 90% (Organisation for Economic Cooperation and Development, 2017a). Primary and lower secondary education is comprehensive and takes 8 years to complete, from the age of 6 to 14. Lower secondary school leavers have three main options in high school: academic (*licei*), technical (*istituti tecnici*), or vocational schools (*istituti professionali*). All of these tracks take 5 years to complete and open access to higher education in any field, regardless of previous school performance. Ability grouping within tracks is highly uncommon. Three-year vocational training courses represent a fourth option at the upper secondary level, which is chosen by a small percentage of students. Teachers formulate a formal track recommendation in grade 8, which is not binding. In Italy students have very limited choice regarding school subjects once they have chosen a track. The private education sector enrolls only 6,5% and 4,5% of the

high school and junior school students, respectively. Adult education is highly underdeveloped in Italy.

The Italian school system thus presents an intermediate level of educational stratification: students are tracked at the age of 14, but track assignment is not binding for access to higher education; the differences between tracks in their school curricula are substantial, but the vocational track is mainly school-based and has weak connections with firms and employer associations. Upper class students are strongly overrepresented in the academic track, whose students display much higher rates of university enrolment to and completion of higher education than students attending the other two tracks. Conversely, working class, immigrant, low-performing students are significantly overrepresented in the vocational track and, to a lesser extent, in the technical track (Azzolini & Barone, 2013). Compulsory education lasts until the age of 16. Dropout rates are comparatively high in the first 2 years following high school and university enrolment, and again they are strongly patterned by students' socioeconomic and immigrant background (Triventi & Trivellato, 2015).

Overall, from the post WWII years until the present day, the educational system in Italy, as in many other countries in the OECD, has been characterized by reform processes to increase its inclusiveness and to reduce phenomena of social exclusion. International data (OECD, 2017a) have shown that, as far as the inclusion capacity of various types of studies is concerned, the possession of lower and upper secondary school diplomas has become increasingly widespread. This trend has been accompanied by a significant reduction of inequalities of educational opportunity by social origins in the postwar decades (Barone, Luijkx & Schizzerotto, 2010), as well as by growing gender equality in participation in the educational system (De Vita & Giancola, 2017).

The level of centralization of the Italian school system is traditionally high. From the end of the 1990s to the present, with a notable acceleration in the last 10 years (2005-2015), the Italian educational system has become the object of several reforms seeking to promote decentralization and school autonomy. This dynamic was produced on the one hand by exogenous factors (broader reform processes aiming at increasing the efficiency of the public administration, pressures towards a rationalization of public spending, the need for integration between the various national educational systems) and, on the other, by factors endogenous to school systems (new conceptions of learning processes promoting a more flexible and targeted view of educational processes) (Giancola, 2010). The opening of the European Education area and the role of supranational agencies (Giancola & Viteritti, 2014) have pushed the educational system simultaneously towards an increasing role of local governance and a growing similarity with the other European educational systems (Benadusi, Giancola, 2016).

These reforms to foster school autonomy and decentralization have produced contradictory effects (Grimaldi & Serpieri, 2012). These processes have transferred some tasks to the schools (the organization of part of the student curriculum, the development of extracurricular projects, etc.), but school autonomy concerning teachers' recruitment and career advancement is still quite limited, and the weight of the central bureaucracies is preponderant also with respect to school budgets. Some recent school reforms have tried to increase the rights of school principals in relation to the selection of teachers and their remuneration, but this process has been controversial, and its outcomes currently remain uncertain. Hence, despite these reform efforts, the Italian school system is still characterized by a high level of uniformity and rigidity (Giancola & Fornari, 2011). Several studies show that the characteristics of the student, the school, and the school context are not independent from

each other but rather overlap and influence students' performances (Giancola, 2010; Triventi 2014).

The degree of standardization and centralization of exams and assessments is low in Italy. Grading standards vary considerably across regions and school tracks (Argentin & Triventi, 2015). The national bureau for school testing (INVALSI) carries out regular standardized assessments of students' skills at grades 2, 5, 8, and 10, but their individual-level results are not communicated to the teachers, nor to the students and their families.¹ Since 2017, the school-level results of these assessments are in principle made accessible to families via a website, which may increase in the future the competition between schools, but currently the impact of this mild form of quasi-market model seems rather limited. Since 2014, Italy has a national system of school quality assessment. Each school receives an annual set of 51 performance indicators (such as average scores on the INVALSI assessments, dropout rates, teacher turnover, etc.) at the school level, with comparisons along these indicators with other schools in the same area. The school uses this information to prepare a self-evaluation report, which forms the basis for a school improvement plan. An external evaluation committee may visit the school to assess the reliability of this self-evaluation report, but in practice this external control occurs only in a very small minority of schools. This mild form of evaluation involves only the schools and there is no standardized mechanism of teachers' performance assessment. If the school fails to reach the goals of the school improvement plan, there is no sanction in terms of school resources or teachers' salaries; the school principal may face some negative consequences in terms of career development, but this still remains unclear, as the system is new and schools have just begun to implement the improvement plans. Overall, the pressures towards increasing school accountability are still quite limited in Italy as compared to other European countries, such as England or the Netherlands, but the direction of recent

¹ The only exception was the test administered at the lower secondary final examinations, which contributed to the final grade. However, due to the limited external control during this test, cheating at this test was common practice (INVALSI, 2017). Since 2017, the test has no longer any consequence for the final grade.

reforms marks a significant change towards more pressure concerning school performances. Unfortunately, the focus is largely on school-level averages in educational output indicators, while the objective of fostering equal opportunities by promoting the educational success of disadvantaged students remains quite marginal in the current understandings of what makes a 'good school'.

Finally, higher education virtually coincides with university courses comprising 3-year bachelor and 2-year master courses. Postsecondary vocational education remains marginal. Access to university education is formally open to all high school diploma holders, although in fact entry examinations based on standardized tests are increasingly common. Universities enjoy much larger autonomy than schools with regards to the management of human and financial resources. Accountability dynamics are also more pronounced at this level, since the scientific output and the teaching practices of each university are routinely evaluated.

Family Background and Educational Success in Italy

Italy displays comparatively low levels of educational attainment in tertiary education and, to a lesser extent, in upper secondary education. Moreover, educational achievement as measured in PISA and TIMSS surveys is also comparatively low among secondary-aged children. These low levels of educational success go hand in hand with strong social inequalities in educational participation. It is well-documented that parents' educational and occupational position exerts a strong influence on their children's educational opportunities in Italy. Family background is associated with student grades and scores in standardized tests in primary (INVALSI, 2017; Raimondi, Barone, & De Luca, 2013), lower secondary (Fondazione Giovanni Agnelli, 2011; INVALSI, 2017; Mullis, Martin, Foy, & Hooper, 2016), and upper secondary education (Benadusi, Fornari, & Giancola, 2010; Giancola & Fornari, 2011).

Moreover, a low-SES family background is associated with higher chances of enrolment in the vocational track and with higher dropout risks. Controlling for performance in standardized tests, low-SES students get lower grades (Triventi & Argentin, 2015), and controlling for test scores, grades, and school-based measures of behavioural problems, these students are less likely to get a teacher recommendation for the general track (Argentin, Barbieri, & Barone, 2017), possibly because teachers anticipate lower family support for these students (Romito, 2017). In turn, track choice impacts considerably on their chances to enrol at university and to achieve bachelor and master degrees.

The influence of family background on track choices and high school completion is comparatively very strong in Italy, which ranks among the most unequal countries in Europe (Barone & Ruggera, 2018; Braga, Checchi, & Meschi, 2015). It is also remarkable that this influence is less mediated than elsewhere by school performance. For instance, school results mediate less than half of the association between social origins and track choice (Azzolini & Contini, 2016; Contini & Scagni, 2013). The influence of family background on educational attainment has declined significantly in the birth cohorts schooled in the 1950s and 1960s, while in recent cohorts it shows a high degree of persistence (Shavit, Westerbeek 1997, Ballarino & Schadee, 2008; Barone, Schizzerotto, & Luijkx, 2010). The relationship between social class and track choice displays a considerable degree of stability in the long run (Ballarino & Panichella, 2014). At the same time, it should be noted that the incidence of students from low-educated families has declined sharply. For instance, between 2000 and 2015, their share declines from 31% to 19%, as reported in Table 1.

In Italy, inequalities by family background are strongly intertwined with inequalities by immigrant status and area of residence. In this country, immigration is a relatively recent phenomenon and the presence of immigrant students was quite negligible until the mid 1990s. Since then, their share has started to increase, as reported in Table 1, and research has documented that these students are systematically overrepresented among low-achievers, dropouts, and students in the vocational track (Azzolini & Contini, 2016). Because immigrant parents are strongly overrepresented in unskilled, low-income, precarious jobs (even when they have high-level qualifications), social class correlates with immigrant status and mediates about half of the gap between non-natives and natives in track choice and dropout risks (Azzolini & Barone, 2013). This gap declines substantially in the second generations and is weakest among Eastern European and Southern American nationalities and strongest among Northern African nationalities (Azzolini & Contini, 2016).

<TABLE 1 HERE>

The socioeconomic gap between the rich regions of Northern and Central Italy and the poor regions of the South is a core social divide (Benadusi et al., 2010). Relative poverty rates are more than three times higher in Southern Italy (Istat, 2018), youth unemployment risks are two times as high, and the net income per household is 37% higher in Northern Italy than in the South (Istat, 2015). Hence, the incidence of low-SES families is higher in Southern Italy. Southern students underperform substantially in the achievement tests and are exposed to higher dropout risks (Bratti, Checchi, & Filippin, 2007).

Finally, it should be noted that male low-SES students are substantially more at risk of low test scores and school grades than their female counterparts. They are also more likely to

enrol into vocational tracks and to leave the education system early. For PISA test scores, it is well-documented that female students enjoy a strong advantage in reading and a moderate disadvantage in math, while gender differences in science are negligible (Organisation for Economic Co-operation and Development, 2017b).

It should be noted that, while the results that we have summarized in this section are well-established in the literature concerning the Italian case, we lack trend analyses concerning the evolution of social inequalities in compulsory education for the more recent years (2000-2015). This research gap partly reflects a lack of suitable data, since national register data are not yet accessible and no repeated, nationwide survey is available to analyze the longitudinal evolution of educational careers in primary and secondary education. We have thus decided to resort to the PISA data to analyze the evolution of the social gradients in student skills and track choices.

The Evolution of Social Inequalities in Italian Upper Secondary Education: Methods and Results

For the analyses we use the 2000 to 2015 waves of PISA data.² In Italy students aged 15 years attend the first or the second year of upper secondary school. We exclude from the analytical sample students attending lower secondary education or vocational training courses (approximately 3% of the total).

² Results obtained from the 2000 survey should be interpreted with caution because a relatively large proportion of students did not provide enough information to impute an achievement score. Excluding the cases that have a non-imputable score in at least one domain, the resulting sample is reduced from almost 5,000 to slightly more than 1,000 cases. Assuming that the missing cases are missing at random, as the Organisation for Economic Cooperation and Development and INVALSI do, those numbers are probably sufficient for the main, aggregate analysis, yet they are less reliable for the subgroup analysis. For this reason, when we test the significance of the changes in educational inequality over time, we use the 2003 survey as the starting point of the time series. The inclusion or exclusion of the 2000 wave does not substantially affect our main conclusions concerning the evolution of educational inequalities in Italy.

The outcome variables are the student scores in reading, mathematics, and science based on the five plausible values used in PISA, and the attendance of the academic track (*liceo*) at age 15. Unfortunately, no reliable data source is available to measure social inequalities in student dropout risks.

The main independent variable is parental education, coded into three categories of the ISCED classification: primary or lower secondary (ISCED 1-2), upper secondary (ISCED 3-4), and tertiary (ISCED 5-6). We will present results concerning the gaps between children from low-educated families and from a tertiary education background. In some control analyses that we comment below, we have replaced parental education with the ESCS index commonly used in the analyses of the PISA data. For both measures of family background, we apply the dominance criterion, which selects the highest educational or occupational level of the parents.

Our covariates are gender, country of birth (Italy vs. abroad), and area of residence (North, Centre, South). We have also estimated models that incorporate the upper secondary track (general, technical, vocational), which is recognised in the literature as a major mediator of family background effects. We take into account the complex survey design of PISA using the PISA replicate weights. In estimating the uncertainty associated with the plausible values of achievement scores, we consider both the sampling error and the imputation error deriving from the testing procedures. We adjust the standard errors of the regression estimates to take into account school-level clustering. The graphs show the marginal values of the regression models.

As reported in Figure 1, which plots the imputed values extrapolated from the OLS models, the gap in the attendance rates of the academic track by parental education at age 15 has narrowed over the period under consideration. In 2003 less than a fifth (18%) of children from low-educated families (ISCED 1-2) attended the academic track, whilst in 2015 this proportion increased to almost one-third (29%), which is a larger increase than that experienced by children from a high ISCED background, which moved from a 57% to a 63% attendance rate. The difference in the trend between the two groups expressed in terms of log odds is significant at the 5% level. Despite this reduction in the gap between the two groups (-5%), the gap itself remains substantial (34%).

The 2010/2011 reform of the academic track, which created new curricula in the academic track, and most notably some curricula that do not involve the study of Latin and philosophy, may have contributed to this limited equalization, since these school subjects are taken more often by upper class students and thus represents a highbrow cultural barrier to enrolment in the academic track for low-SES students. However, it should be noted that the trend starts before this reform, in the early years 2000s.

<FIGURE 1 HERE>

<FIGURE 2 HERE>

The achievement gaps by parents' education do not change over time, except possibly for science. As can be seen from Figure 2 concerning math achievement, the trends for the two groups move perfectly in parallel, and the same applies for reading achievement (Figure 3). For science (Figure 4), the gap is significantly reduced from almost 40 to 30 points, thanks to

the skills improvements of children from low-educated families; yet the reduction of social inequalities is only significant at the 13% level when comparing the achievement gap by parents' education in 2003 with that of 2015.

In some additional analyses (available upon request), we have considered the evolution of these educational gaps separately for female and male students and for natives and non-native students, and the broad picture does not change. The only notable change in the achievement gap is the one occurring in the Northern regions, where the gap in reading scores by parental education shrunk from 48 to 25 and this reduction is highly significant ($p < 0.01$). Similar patterns occur for the other domains. At the same time, the gap is stable in the Central and Southern regions (results available upon request).

<FIGURE 3 HERE>

<FIGURE 4 HERE>

The Evolution of the Policy Context

The evolution of the Italian socioeconomic and institutional context in the period under consideration has not been particularly favorable to a reduction of educational inequalities. After an initial period of slow economic growth in the early 2000s, Italy has faced a strong and prolonged economic recession between 2008 and 2015. The marked income inequalities that characterize this country, with a Gini index only slightly lower than those observed in the U.S. and the U.K., have continued to increase since the mid-1980s (Brandolini, 2017), parallel to a substantial growth of precarious jobs and unemployment risks (Reyneri, 2014). Due to the crisis of public finances, welfare coverage of unemployed and low-income families has

remained at extremely low levels in this period, despite the growing risks of economic insecurity.

The institutional architecture of the educational system has remained largely unchanged (Benadusi & Giancola, 2014). Indeed the fundamental structure of a tripartite model with tracking age at 14 and strong differences in the curricula, prestige, selectivity, and social profiles of the three tracks has persisted in Italy since 1942; that is, it dates back to the Fascist regime. As mentioned above, since the late 1990s Italian schools have enjoyed an increasing level of curricular and organizational autonomy, but the centralistic and bureaucratic control of the national level has remained largely prevalent.

Moreover, the funding of the school system has been substantially reduced in the period under consideration (Organisation for Economic Co-operation and Development, 2017). Income support for low-SES students is negligible in primary and secondary education. Affirmative action policies and interventions to redirect resources towards the most disadvantaged school contexts are virtually absent—and actually not even debated—in Italy. Educational support programmes for disadvantaged students (low-educated parents, immigrant families) are extremely scant and they are largely developed on the initiative of single schools or teachers, in the absence of a nationwide policy framework. More generally, the reduction of social inequalities in education is a marginal issue in public debates, as well as in the agenda of policymakers. In the period under consideration, the initiatives to reduce the cultural, social and economic barriers that hinder school success for disadvantaged students have been very limited in scope.

Within this highly inertial situation, two significant changes in the institutional structure of the Italian school system in the period under consideration can be mentioned. First, compulsory education has been raised from 14 to 15 in 1999 and then to 16 in 2006. These reforms have been implemented in a context where the objective of reducing early high school dropouts and increasing upper secondary completion rates has become a priority in the agenda, also following some pressures from the European institutions. As explained above, due to data limitations we are unfortunately unable to analyze the evolution of social inequalities in dropout rates. Second, the curricular differences between academic and technical schools have been softened in 2009, thanks to the introduction of some intermediate curricula in the academic track that do not comprise Latin and philosophy.

Concluding Remarks

Overall, socioeconomic inequalities in education have been broadly stable in Italy during the period under consideration. On one hand, inequalities by parental education in track choice, which impact so heavily on inequalities in higher education, are comparatively strong and have diminished very slowly. To illustrate, a decline of only five percentage points over the 12 years out of an initial gap of 39 points means that, if we plot for the future the linear trend that we have detected between 2003 and 2015, it would take more than 80 years to erase these educational inequalities. We cannot wait that long. These results are in line with the relative strong influence of family background on track choices and high school completion found in previous research (Barone & Ruggera, 2018; Braga, Checchi, & Meschi, 2015). However, the small decline in inequality in participation in the academic track is a significant finding in the light of the high degree of persistence of intergenerational inequalities found in recent cohorts (Ballarino & Schadee, 2008; Barone, Schizzerotto, & Luijkx, 2010). The 2010/2011 reform of the academic track which created new curricula in the academic track that do not involve the

study of Latin and philosophy might also have played a role in this equalisation, but it should be born in mind that the trend started in the early years 2000s, that is, before the reform was introduced. Moreover, it should be borne in mind that we currently don't know whether students who take these less selective academic tracks enjoy similar opportunities in higher education than students in the traditional academic tracks.

On the other hand, socioeconomic inequalities in skill development are overall unchanged across domains for both male and female students. Only the Northern regions show a mild reduction of inequality in achievement by social origins. It should be noted that these skill gaps are not very pronounced in comparison with those observed in other OECD countries, but also that inequalities in skill development are not a high-stake issue in Italy (Sestito, 2016). As explained above, student scores in standardized tests have no direct implication for grade advancement nor for track decisions, and the final exam in upper secondary education does not involve any standardized testing of student skills. At the same time, the credentialist nature of the Italian labor market implies that the possession of relevant educational qualifications is far more relevant than the actual skill levels. The incentives to develop high skill levels are undermined in an economic context characterized by a remarkably low share of skilled occupations, and where informal connections play a major role in job search processes. Credentials and social networks, more than skills, are the key drivers of social competition in education in Italy. Unsurprisingly, in Italy the average levels of student skills as measured in PISA are far below the Organisation for Economic Cooperation and Development average.

The strong social inequalities characterizing educational attainment in the Southern and Central regions in is a longstanding issue. There is a large economic and social divide

between the richer Northern regions and the other regions, where the incidence of low-SES families is higher and students underperform in the achievement tests. Conversely students in the Northern regions perform well above the cross-country average in PISA tests (Bratti, Checchi, & Filippin, 2007).

Overall, the inertia of educational inequalities in Italy is unsurprising in the light of our analysis of the structural and institutional context that characterizes this country. In a context of economic stagnation and increasing socioeconomic insecurity, where financial and educational support to disadvantaged students is remarkably weak, the fact that educational inequalities at the upper secondary level have not increased may be even regarded as a “partial success”

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