

The application of the ISCED-97 to Italy

Carlo Barone and Antonio Schizzerotto

1 Introduction

After a long period of stability, the Italian school system has undergone deep transformations in the course of the past decade (Schizzerotto and Barone, 2006). Educational policies have redesigned the content of curricula as well as exams procedures; the age until which education is compulsory has been raised in 1999 from the age of 14 to 15 and further to 16 in 2003; despite the persistency of a quite strongly centralised model of governance of the educational system, schools have been granted a certain degree of autonomy in defining learning subjects; and, what is most important for our purposes, the structure of the school system at the tertiary level has been modified to a considerable extent. Also as a result of these reforms, school participation rates have grown rapidly in recent cohorts, thus reducing the gap that separates Italy from other European countries. However, if we consider the adult population, Italy still scores very poorly in terms of educational attainment, as we will show later.

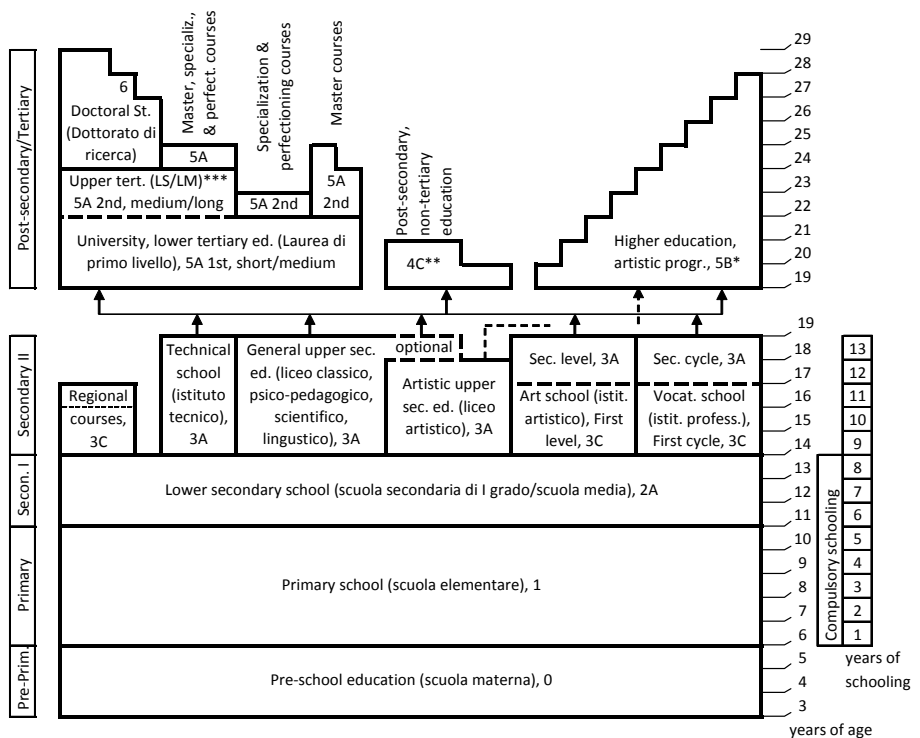
In this chapter, we will examine the transformations of the Italian school system, discussing the most crucial implications for the classification of educational credentials, within the conceptual framework of the ISCED-97 (e.g. typical entrance age, entrance requirements, expected duration, content and specificity of the curricula and vocational orientation, compulsory/voluntary attendance, staff qualifications, section 2). In section 3, relying on data of the Labour Force Survey, we will give some information regarding the current levels of education of the whole Italian population. More precisely, we will show the distribution of educational credentials following both the ISCED scheme and a national classification of school degrees. In the concluding remarks (section 4), we will discuss some problems and shortcomings with the current implementation of the ISCED scheme to the Italian case. This discussion does not aim at questioning the ISCED scheme *per se*: rather it deals with the implementation of this scheme, that is to say with the procedures of “translation” of Italian credentials into the ISCED categories and with the substantive consequences of these procedures for social research.

A final premise is that some of the above mentioned reforms are *currently* being implemented, which poses some methodological problems for the examination of the ISCED classification in Italy, due to the very limited incidence of some school titles that, in the near future, may acquire considerable importance. This sort of issues concerns particularly tertiary education: after the so-called Bologna process,

the types of higher qualifications awarded by universities have changed quite dramatically in recent years.

2 The Italian educational system

Figure 1. The Italian educational system from pre-school education to tertiary education



* Accademie di belle arti, istituti superiori per le industrie artistiche
 ** Istruzione e formazione tecnica superiore, alta formazione artistica e musicale, scuole superiori per la mediazione linguistica, and others
 *** Laurea specialistica/magistrale, Laurea di secondo livello

Let us start with an overall look at the current structure of the Italian educational system (figure 1). The lower part of figure 1 represents the horizontal and vertical differentiation of educational supply in Italy, from the pre-primary level to the completion of upper secondary school. The former begins at the age of 3 and lasts for 3 years. Although it is not compulsory, pre-primary education exhibits an almost universal attendance rate (93,4% according to census data). Nursery schools are centre-based and they currently require teachers with a university degree in pedagogy. They are coded as ISCED 0.

At the age of 6, children enter primary education (ISCED 1), where pedagogy is organized in units or projects, rather than in school subjects. Each class has 3 to 4 teachers: each of them is responsible for a specific unit of learning (e.g. mathematics, geometry and science). Like for teachers in nursery schools, they must possess a university degree in pedagogy. Primary education lasts for 5 years.

The next step is lower secondary education, which lasts for 3 years. Until 1962, it was divided into a general, academically-oriented track (*scuola media*, ISCED 2A) and a vocational dead-end track (*scuola di avviamento professionale*, ISCED 2C). The latter was suppressed in 1962, thus eliminating all sort of internal stratification at this level. According to the data of the Italian Households Longitudinal Survey (IHLS), it can be estimated that in the adult population one individual out of six with a lower secondary degree has attended the dead-end track.

After some recent reforms implemented only in the late 1990s, lower secondary as well as upper secondary education require more advanced qualifications than previous levels, since teachers must possess a tertiary degree specifically related to the subject they teach, together with a post-tertiary degree in pedagogy, attained after the successful completion of a two-year course.

Attendance at the lower secondary level is compulsory since the Gentile reform (1923). However, it is only in the course of the 1950s that participation at this level has increased rapidly, and attendance has become truly universal only in the late 1970s. Still in the year 2004, a small percentage of students (4.3%) do not obtain a lower secondary degree (ISTAT, 2006a).

Turning to the upper secondary level, it should be noted that it has maintained its basic structure since the above mentioned Gentile reform. Although figure 1 shows 5 educational tracks, most students are concentrated in only 3 of them, hence the so-called tripartite structure of Italian upper secondary education. General schools (*licei*) are the academic-oriented branch, with a strong emphasis on humanistic culture. They are internally divided into classical, scientific, linguistic and artistic tracks, all lasting for 5 years. The artistic track (*liceo artistico*) is a partial exception: it is possible to complete it after 4 years and still gain access to some higher education faculties, although it should be noted that most students usually complete the full five-year course. A more important observation is that, although this track is usually classified among general schools (hence coded as ISCED 3A), 24 hours out of 38 of its weekly curriculum are devoted to manual (artistic) activities (Eurydice, 1999). This means that the theoretical component of the curriculum has rather limited importance, at least by Italian standards.

Technical schools (*istituti tecnici*), which also last for 5 years, are the second “pillar” of the tripartite system. They were originally designed as vocationally-oriented courses to prepare middle-level technicians, although in recent decades the theoretical component of curricula has become more prominent and many students

nowadays continue to university (Schizzerotto and Barone, 2006). Not surprisingly, they are coded as ISCED 3A.

The third pillar of the tripartite system is represented by vocational schools (*istituti professionali*), organized into two cycles, lasting 3 and 2 years respectively. Once again, students can complete the full five-year course and obtain an ISCED 3A qualification. However, they could leave the system after the first cycle with a vocational credential, counted as ISCED 3C because it does not give access to university. The relevant point to note here is that, after a reform approved in 1969, all students from technical and vocational schools have the possibility to complete a full five-year course, and most of them indeed take advantage of this possibility (Dei, 2000). This allows them to gain access to all kinds of post-secondary and tertiary education, no matter what upper secondary school they have attended. Both vocational and technical schools are articulated into several tracks (mainly, trade-oriented and industry-oriented tracks).

As for art institutes (*istituti d'arte*), they follow a 3+2 years scheme similar to vocational schools, and they are equally characterized by a vocational orientation, with a specialization in the artistic field. Finally, we should mention teacher training schools and institutes (*scuole e istituti magistrali*). As noted earlier, a recent reform has modified the recruitment rules for the teaching profession. Before this reform, pre-primary and primary teachers had to attend, respectively, teacher training schools and institutes. The former lasted 3 years, the latter lasted 4+1 years. Also in the case of teacher training institutes, we can identify the core principle of affording the opportunity to complete a full five-year course that ensures the possibility to attend any higher education course. On the contrary, teacher training schools are a dead-end track, although they are coded as ISCED 3A, rather surprisingly.

After the full implementation of the above mentioned reform in the late 1990s, teacher training schools and institutes have been suppressed or, more precisely, they have been transformed into general schools, often preserving an emphasis on pedagogical subjects, psychology and social sciences.

The five above-mentioned branches examined so far belong to the national school system organized by the central government. However, the Italian Constitution allocates the responsibility for vocational training to the Regions that organize two-year courses (with the possibility of attending one more year in some cases). So, these courses (*corsi regionali di formazione professionale di primo livello*) must be distinguished from vocational schools both because they are not in the responsibility of the Ministry for Education and because they are a dead-end track. They are designed to lead directly to the labour market and they are typically attended by students with poor academic achievement at the lower secondary level.

Regional vocational courses as well as the five national school branches of upper secondary education require a lower secondary degree. It should be noted that compulsory education has been fixed at the age of 14 until 1999, when it was

raised to 15. In 2003, this threshold was set to 16. This means that students who complete lower secondary education regularly at the age of 14 must spend two years in upper secondary education, either in the dead-end regional track or in one of the five school branches of the national system. According to the most recent data, 92,1% students aged 14 to 18 years attend upper secondary education (ISTAT, 2006a).

All students who complete a five-year course must pass a national examination (*Maturità*). Until the mid 1960s, this was a real selection procedure with one candidate out of 4 not passing. However, since the 1970s, this examination has turned into little more than a formality (less than 5% of students fail). All the national branches of upper secondary education give access to university education.

All students who complete a five-year course and pass the final examination are entitled to attend all kinds of post-secondary training as well as tertiary education. The former comprises 2nd level vocational courses organized by the Regions, as well as the so-called IFTS courses (an Italian acronym for Higher Technical Education and Training), which are both classified as ISCED 4C. Regional vocational courses at the 2nd level last up to one year and they require an upper secondary certificate, hence they cannot be accessed directly from 1st level courses. IFTS courses were introduced in 1999 and they were expected to become the vocational branch of higher education. They require an upper secondary diploma, but they are also addressed to adults with labour market experience who can gain access to IFTS even without an upper secondary degree (through a procedure of certification of the skills that they have acquired in the labour market). IFTS courses offer specialized training for specific occupations and they are organized by the Regions according to the local demands of the economy. They do not prepare for entry into university, although credits acquired can be recognized by academic institutions. Attendance to IFTS is almost negligible (less than 15000 students per year; MIUR, 2005), which means that vocational tertiary education is virtually absent in Italy. This probably represents the most relevant peculiarity of the Italian educational system in comparative perspective.

As for university education, it should be noted that it has undergone deep transformations after a reform approved in 1999 that has redesigned the structure of university courses and that has suppressed the so-called university special courses (*diplomi universitari e scuole dirette a fini speciali*) These courses lasted two to three years and they were designed to provide students with specific skills relevant for the labour market. There is little doubt that they were more vocationally-oriented than the standard, longer university courses. Thus, although university special courses are usually classified as ISCED 5A, an alternative solution (ISCED 5B) would seem preferable. The arguments that could be used to justify the standard coding rule (5A) are that these courses included a non-negligible theoretical component and they were taught mainly by university teachers (INDIRE, 2005). In prin-

ciple, they could give access to full university education, although *de facto* this was a very uncommon choice. On the whole, these short-duration courses with an explicit vocational orientation and weak connections with university education would be better classified as a 5B programme.

As for higher education artistic programmes, they are classified as ISCED 5B. They require a five-year upper secondary certificate and they can last 3 to 9 years, depending on the specific course attended. They benefit from particularly high autonomy in the recruitment procedures of the teaching staff as well as in the organization of lessons, where attendance is often compulsory.¹

The wide majority of higher education students attend university education that, since the above-mentioned 1999 reform, has been organized into two cycles, lasting 3 (*corso di laurea*, ISCED 5A first degree) and 2 years (*corso di laurea specialistica*, ISCED 5A second degree) respectively. It may be noted that students accessing lower tertiary education must choose whether to attend upper tertiary education only at the end of the first cycle. Hence, there is neither formal nor informal sorting of students in lower tertiary education according to subsequent educational destinations.

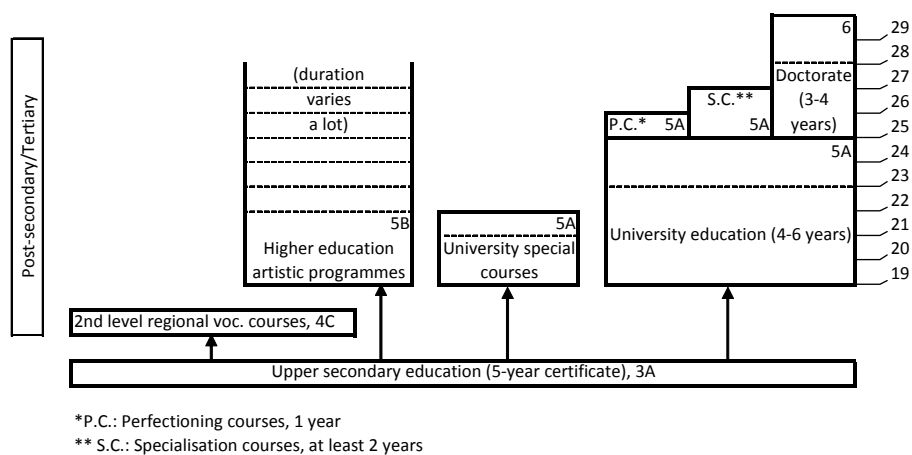
Both cycles of tertiary education give access to master courses (*master di primo e secondo livello*), specialization courses (*corsi di specializzazione*) and perfecting courses (*corsi di perfezionamento*). These courses, all coded as 5A, are practically oriented and they last one year (with the exception of master courses after lower tertiary education). They are designed to prepare for different occupational profiles, but they are all meant as forms of post-university vocational training. Finally, doctoral studies (ISCED 6) require a higher level tertiary degree and they last 3 to 5 years.

As we will see in the next section, post-secondary and post-graduate courses have always been of negligible size in Italy. Also doctoral studies display comparatively low attendance rates in Italy. So, in spite of its seeming complexity, the system of higher education is rather simple and undifferentiated: the vast majority of students attend university courses, if they continue their studies after the *Diploma* (Checchi, 2000; Schizzerotto, 2002). This situation may change within a few years: due to the recent increase of upper secondary and tertiary graduation rates, the population eligible for master, specialization and perfecting courses is rapidly growing, and credential inflation pressures may further boost participation in these courses. However, at present the number of people who have completed them is extremely low and, not surprisingly, many survey data do not contain any information on them or, if they do, they employ a simple, aggregated category (“post-

¹ The Higher Schools for Interpreters and Translators, the Diplomatic Schools, the Military Academies and the Police Institute also belong to the system of higher education and they benefit from high organizational autonomy, due to their very specific functions.

university courses” or “specialization courses”). Without a very big sample size, it is even difficult to find more than a few individuals who have completed these *post lauream* courses. A similar problem applies to IFTS courses, usually ignored in most survey data. Also in this case we are faced with an educational programme that has been introduced too recently and that is currently too small for purposes of data collection, although in the near future it may become a relevant option for upper secondary graduates.

Figure 2. The former system of higher education in Italy



It is also important to briefly describe the situation of higher education before the 1999 reform (fig. 2), since most university degrees possessed by the adult population refer to the old system. Since IFTS and master courses were absent and university education was not vertically differentiated into two cycles, it was basically a bipartite system, where four- or five-year university courses and special university courses were the two main options open to students with an upper secondary certificate. The size of the latter was small, although rapidly increasing: graduates in special university courses were 4,1% of the total population attaining some higher education degree in 1990, but this value amounted to 11% in 2001 (MIUR, 2006).

An important observation for Italy concerns the distinction between the expected duration of school studies and their actual duration. The gap between the two means that the theoretical age of completion of each educational level can be quite different from the real timing of the educational career in Italy (table 1). In the case of upper secondary schools, this gap is due the high repetition rate. According to the data of the IHLS, more than one individual out of 4 (25,6%) has repeated at least one year. As for tertiary education, in the former system most courses were expected to last 4 or 5 years, but the median duration of university studies was 72 months, according to the Kaplan-Meyer estimates based on the IHLS data. The new

system of higher education has been introduced also with the purpose of reducing the incidence of delays in the completion of university studies, although now it is too early to evaluate whether this purpose has been successfully accomplished.

Table 1. The expected age of students at every educational level

Educational level	Age
Pre-primary	3–6
Primary	6–11
Lower secondary	11–14
Upper secondary	14–17/19
Post-secondary	19–20/21
Lower tertiary	19–22
Upper tertiary	22–24
Post-lauream:	
– from lower tertiary	22–23/25
– from upper tertiary	24–25
Doctorate	24–27/29

Before turning to the data, we may shortly discuss two features of the Italian educational system that hold some relevance for the credentialing system. The first one concerns the institutions responsible for the organization of schools and universities. It is well-known that Italy has followed for a long time the French model of a highly centralized model of decision-making, where Regions and municipalities, as well as the school personnel, have always played a marginal role. Although this situation is rapidly changing, the value of school titles is still rather uniform and standardized across the nation. Moreover, the private sector (partially subsidized by the State) is small at all educational levels (about 6% of the total student population), except in pre-primary education (38% of the children in nursery schools). The awarding of credentials in the private sector follows basically the same rules and categories as in public schools.

The second issue to be shortly discussed concerns adult education that Italian legislation (law 845/78) treats as a segment of the vocational training sector. Consequently, Regions are mainly responsible for it. Thus, there are some special categories of the above mentioned 1st level regional vocational courses that are specifically addressed to adults who do not have a primary degree or a lower secondary degree but want to obtain it. The credentials attained through these courses are fully equivalent to those obtained in the national school system and they give access to standard upper secondary education.

3 A preliminary look at the distribution of educational credentials in Italy

We are now in a position to examine the detailed distribution of school degrees in Italy, based on a national classification that closely reflects the previous description of the Italian school system. The estimates reported in figure 3 are drawn from the data of the 2004 wave of the European Union Labour Force Survey (EU-LFS)² and they refer to respondents aged between 25 and 64 years.

So, we can see that almost one Italian out of five has not gone beyond primary education: 2,7% has no degree, while 16% only has a primary degree. Moreover, 32,4% has stopped at the lower secondary level. These data give a clear picture of the very low level of educational attainment of the adult population in Italy. If we consider upper secondary education, we can see that technical schools are largely predominant (16,1%), followed by vocational schools (9,7%), by general schools (4,8%) and teacher training institutes (3,8%), recently transformed into general schools. Hence, we can identify the above-mentioned three pillars of the tripartite system. All the other upper secondary tracks are of negligible size. Turning to tertiary education, the picture is more clear-cut: only tertiary degrees obtained in the former university system (before 1999) display a relevant incidence (9,3%). This reflects the recent introduction of the new system, but also the fact that, in spite of its formal differentiation, higher education has always been rather monolithic in Italy (ISTAT, 2006b).

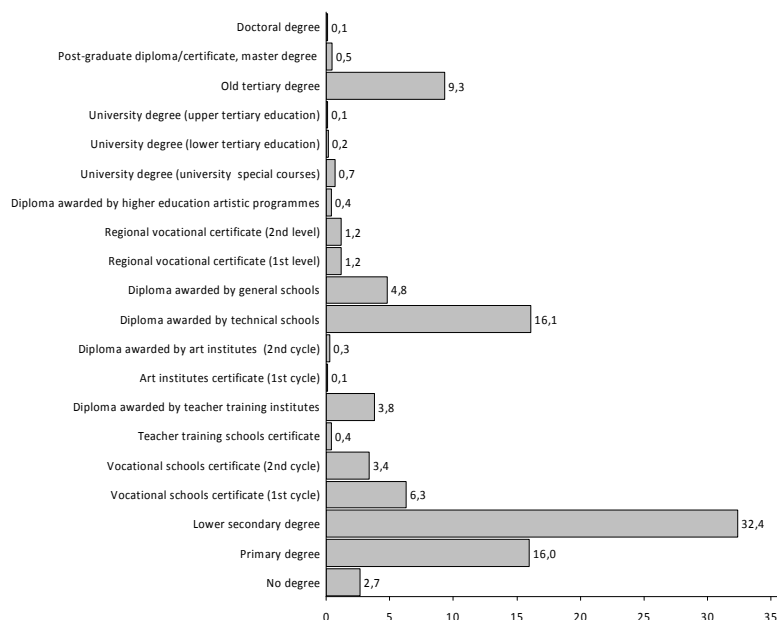
Finally, we can aggregate the previous detailed national classification to obtain the estimates for educational attainment in the adult population based on the ISCED scheme. We can notice that the lowest levels (1 and 2) comprise more than half of the Italians. Moreover, 3AB and 5A degrees are largely predominant, respectively, at the upper secondary and at the tertiary level. Post-secondary non tertiary education (ISCED 4), as well as doctoral studies (ISCED 6), are of negligible size.

² More precisely, these data refer to the 2nd quarter of 2004 (the estimates for different quarters are almost identical).

Table 2. Educational attainment in the Italian population (25–64 years-old), ISCED scheme

ISCED	%	Corresponding school degrees
0	2.7	No degree
1	16.0	Primary degree
2	32.4	Lower secondary degree
3C	7.6	Certificate awarded by: vocational schools (1 st cycle), art institutes (1st cycle), regional vocational courses (1 st level)
3AB	28.7	Diploma awarded by: vocational schools (2 nd cycle), art institutes (2nd cycle), general schools, technical schools, teacher training institutes and schools; certificate awarded by artistic general schools
4C	1.2	Certificate awarded by regional vocational courses (2 nd level)
5B	0.4	Diploma awarded by higher education artistic programmes
5A	10.9	University degree attained in: university special courses, current lower and upper tertiary education, old tertiary education; professional post-graduate diploma; post-graduate certificate; master degree
6	0.1	Doctoral degree

Source: Italian LFS 2004, Q2.

Figure 3. Educational attainment in the Italian population (25–64 years-old), national classification

Source: Italian LFS 2004, Q2.

4 Discussion

On the whole, if we are to evaluate the implementation of the ISCED scheme in the Italian case, we can conclude that it is quite satisfactory, although some inadequacies are apparent. In particular, in section 2 we have raised at least three issues:

- a) Teacher training schools, suppressed a few years ago, are classified as ISCED 3A, although they lasted for 3 years (*see* *decr. leg. 297/94*) and they did not give access to university. Furthermore, they had an explicit vocational orientation, since they were specifically designed to train pre-school teachers. Therefore, coding them as ISCED 3C would be more appropriate.
- b) Artistic general schools should be classified as ISCED 3B in the light of the strong practical component of their curricula (24 hours per week out of 38 are devoted to manual activities), and because they primarily prepare for access to ISCED 5B. If the distinction between general and vocational programmes was implemented within category 3A, they could however also be coded as 3A (vocational), as, in theory, they also give access to universities. Either way, it is important that these programmes are distinguished from the upper secondary general and technical programmes.
- c) University special courses, that have been suppressed, should be classified as ISCED 5B, because of their vocational orientation, and because they neither give access to university courses, nor to doctoral studies.

These three problems entail relatively limited consequences for the analysis of educational attainment, given that the corresponding degrees are not very widespread (only 1,3% of all cases need to be reclassified to correct these shortcomings). However, in these concluding remarks we wish to discuss a critical question that may have more far-reaching consequences for the classification of educational credentials in the Italian case: following a reform approved in 1969, vocational schools give the possibility to access the university, therefore they are assigned to category 3A, in spite of their vocational orientation. This means that, if the sub-categories of vocational and general education are not used, all the three pillars of the so-called tripartite system are treated as if they were the same.

This solution has two possible justifications. First, vocational schools are no longer a dead-end track and they give access to all kinds of post-secondary and tertiary courses, like general and technical schools. Second, compared to Germany and to other countries where vocational education is related to the dual system, in Italy vocational schools usually do not involve apprenticeship. A reform approved in 1994 has reinforced the theoretical component of their curricula and it has put more emphasis on the acquisition of cognitive skills. At present, up to one third of the curriculum in vocational schools (between 300 and 450 hours per year) is devoted to practical activities, while the theoretical component is allocated 900

hours. The practical component always includes internships, together with manual activities within the school, while apprenticeship is very uncommon (MIUR, 2001).

In sum, the assimilation of vocational schools to general and technical schools within the same ISCED category 3A is formally correct. At the same time, it seems highly problematic because it obscures completely the crucial distinction between school branches at the upper secondary level. These branches differ considerably with respect to their curricula and their vocational orientation, to the family background and previous academic achievement of their students, as well as to their repetition rates. True, they all give access to university studies, but their heterogeneity in terms of subsequent educational and occupational destinations is impressive. Let us give an idea of these powerful differences, on the basis of the IHLS data that refer to the population aged 18+ years. This survey indicates that 51% of the offspring of the upper class graduate in general schools, but only 6,4% of the children from the working class. The chances of accessing higher education range from 24,9% for students who complete a five-year course in vocational schools to 90,3% for graduates of general schools. The former have a very limited probabilities of reaching the upper class at their first occupation (5,6%), while the latter enjoy much better occupational prospects: 23,3% of them reach the top of the class hierarchy at the entry into the labour market. Not surprisingly, scholars agree that the so-called tripartite system represents the core of the process of educational and occupational stratification in Italy (Gasperoni, 1996; Checchi, 2004; Schizzerotto and Barone, 2006). Unfortunately, this crucial feature goes completely lost, if we merge together general, technical and vocational schools within the same ISCED 3A category.

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