

Schooling Inequalities in Italy and their Trends over Time

Carlo Barone, University of Milano Bicocca

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1-Introduction

It is widely recognized in research on social stratification that educational credentials play a major role in the transmission of social positions from one generation to the next. It seems relevant, therefore, to examine whether educational opportunities are equally or unequally distributed, and whether the relationship between ascriptive traits and schooling outcomes has changed over time. This paper focuses on the relationship between social origins and schooling outcomes and its trends over the 20th century in Italy.

After the publication of the volume “*Persistent Inequality*” edited by Blossfeld and Shavit [1993], concerning comparative analyses carried out in thirteen economically advanced countries, it seemed fairly clear that inequality of educational opportunities (IEO) was rather resilient [Breen, Goldthorpe 1997], since only in 2 countries out of 13 a decline of IEO could be detected (the Netherlands and Sweden, *see* Jonsson [1987, 1993]; Ganzeboom et al. [1993]; Erikson [1996]). However, it rapidly became clear that this general conclusion was not at all a definitive answer. Mueller and colleagues reconsidered the German case and found clear signs of equalisation [Mueller, Haun 1994; Jonsson, Mills, Mueller 1996]. Moreover, for both Hungary and Norway, evidence of educational equalisation for specific cohorts became available [Lindbek 1993; Starvik 2001; Simkus, Andorka 1982; Robert 1991] and it was paralleled by evidence of an increasing social fluidity. Some statistical analyses concerning France [Duru-Bellat, Kieffer 2000; Vallet 2004] as well as Italy [Shavit, Westerbeek 1996, 1997] also concluded that IEO has decreased over 20th century, against the conclusions of previous studies [Garnier, Raffalovich 1994; Cobalti 1990]. Finally, in their recent comparative analysis concerning eight European countries, Breen et al. [2005] find evidence of an overall decline of IEO, with two noticeable exceptions: Italy and Ireland.

In sum, persistent inequality in schooling outcomes may be a rule with more than a few exceptions. It should be recognized, however, that the above mentioned evidence is far from undisputed. Our primary challenge, therefore, is to establish the causes of this substantive disagreement. This paper is meant as a contribution in this direction, with specific reference to the Italian case.

2- The debate over trends in IEO in Italy

During the 20th century, Italy has experienced a remarkable process of modernization. There has been a rapid industrialization and tertiarization of the economy and this shift has been accompanied by an upgrading of the occupational structure and by a growth of the more skilled jobs, together with the expansion of the welfare state and of public employment. These changes have enhanced the value of educational credentials for job opportunities,

thus stimulating the demand for education. At the same time, a growing public investment in the educational system has considerably reduced the costs of schooling.

Moreover, some reforms implemented in the course of the '60s have reduced barriers of access to education [Cobalti, Schizzerotto 1994]. They have probably contributed to the expansion of schooling in Italy, together with the declining selectivity of the evaluation practices [Schizzerotto, Barone 2005]. Two reforms are particularly worth mentioning. First, in 1962 the unified middle school (*scuola media unica*) was introduced at the lower secondary level (instead of the former bipartite system that included an academic track, as well as a dead-end vocational track). Second, some reforms approved between 1965 and 1969 liberalized access to tertiary education, thus allowing also students from upper secondary technical and vocational tracks to pass to university. As a result, working-class children, who are over-represented in the technical and vocational tracks, are no longer formally blocked from access to university [Gambetta 1990; Cobalti, Schizzerotto 1993].

According to modernization theory, the above summarized economic and institutional changes should lead to a reduction of IEO [Parsons 1970; Treiman 1970; Bell 1973; Treiman, Yip 1989]. In particular, the increasing demand for skilled workers should force a change in the principles of allocation of individuals to social positions that favours meritocratic selection criteria. Therefore, social origins and other ascribed characteristics are expected to become less and less relevant in contemporary Italy. Moreover, the above mentioned school reforms are expected to have accompanied and reinforced economic pressures towards declining schooling inequalities.

However, the prediction of a weakening of IEO was rejected by the empirical analyses carried out by Cobalti [1990], Schizzerotto and Schadee [1990] and Cobalti and Schizzerotto [1993]. These analyses were based on the data of the *Indagine sulla Mobilità sociale in Italia* (IMI), conducted in 1985. These studies employed either loglinear models of the relationship between class of origin and educational attainment, or binomial conditional logistic regression techniques describing the influence of family background on educational transitions, i.e. the so-called Mare model [Mare 1981, 1993; Cameron, Heckman 1998; Breen, Jonsson 2000]. The general consensus of these studies was that IEO had remained stable in Italy in the course of the 20th century and that, therefore, school reforms had been largely ineffective.

However, this conclusion was partially rejected by Shavit and Westerbeek [1996, 1997], who analyzed the IMI dataset and found evidence of an equalization at the secondary level. It is worth noting that Shavit and Westerbeek not only worked with same dataset as Schizzerotto and colleagues, but they also made recourse to the same general methodology, since their conclusion concerning a decline of IEO was based on the application of the Mare model to the IMI survey. Yet, they reached the opposite conclusion. It should be stressed, however, that substantive disagreement is limited to chances of access to secondary schooling. As far as tertiary education is concerned, all the above mentioned empirical studies find no sign of equalization. Thus, it is agreed that the competition for the higher educational credentials, that ensure the higher opportunities of access the upper class, is rather unfair in Italy, and that the situation has hardly changed in recent decades.

However, in the case of secondary schooling, Shavit and Westerbeek [1997, p. 41] conclude that «there has been an equalization between socioeconomic strata (as indicated primarily by father's education) in the odds of both media completion and entry into upper secondary schools». Moreover, they present an unconditional logit model for the log-odds ratio of obtaining an upper secondary degree and they argue that «some of the reduction in the

effects of father's education, that we have seen at the lower transition points, carries over in the form of a marginally significant reduction in the effect of this variable [...] ». Thus, Shavit and Westerbeek do not claim that selection *within* upper secondary schools has become more meritocratic, they only contend that *access* to this educational level is now more equally distributed.

A subsequent analysis carried out by Pisati [2002], however, rejected the claim the IEO has declined in Italy. According to Pisati, a stable association between family background and schooling outcomes can be detected both at the upper secondary and at the tertiary level. This conclusion was based on the application of the Mare model to the data of the *Indagine Longitudinale sulle Famiglie Italiane* (ILFI), conducted in 1997.

In sum, there are several studies concerning trends of IEO in Italy, but no agreed conclusion, as far as secondary education is concerned. It must be noted that these studies, although based on the same methodological premises, present some relevant differences that may affect their conclusions. At least three of them should be mentioned. First of all, these studies employ two different datasets (the IMI and the ILFI surveys) and they make reference to partially different birth cohorts: therefore, we do not know whether these datasets would lead to identical results, if we follow an identical operationalization and we study the same birth cohorts.

Second, it is controversial whether the measurement of social origins should include not only parents' occupation, but also their level of education. Shavit and Westerbeek [1997] consider this decision as the main difference between their statistical models and those presented by Cobalti and Schizzerotto [1993,1994], who do not include parental schooling among the independent variables. Interestingly, the same issue has been raised for the conflicting analyses of Norwegian data [Starvik 2001] and, I would suggest, it may be posed also for other studies that refer, for example, to Hungary and Germany [Simkus, Andorka 1982; Jonsson, Mills, Mueller 1996]. In principle, I suspect, everybody agrees that the measurement of social origins should be based on variables expressing both parental occupation and level of education. However, Cobalti and Schizzerotto [1993] have argued that, in the case of Italy, this ideal solution may entail multicollinearity problems, due to the association between parental occupation, parental education and respondent's birth cohort. This problem is likely to be especially relevant when our statistical analyses are restricted to sub-populations of small- or medium-sized datasets.

Finally, a third issue concerns the choice between different indicators of family occupational position, particularly between measures of social status and of social class. Again, the above mentioned studies concerning the Italian case differ with respect to this methodological decision and, again, it has been claimed that different solutions may lead to different substantive conclusions¹. In the next section, I describe the methodology of my empirical analyses and I explain how I have dealt with these three problems.

3- Data, methods and variables

The analyses presented in this paper are based on both the IMI and the ILFI dataset. These surveys were carried out on representative samples of the Italian population residing in Italy at the time of the interviews. The sampling procedure is a stratified multi-stage random

¹ A problem that has been posed for example for Germany [Mueller et al. 1996], Holland [Ganzeboom et al. 1993] and Italy [Shavit and Westerbeek 1997].

selection, where municipalities are taken as primary sampling units and divided into strata, defined on the basis of two variables: geographical location and size; in the next stage, a sample of individuals was extracted within every selected primary unit (for more details on these surveys, see Pisati, Schizzerotto 2004). Overall, 5016 personal interviews were successfully accomplished in the course of IMI and 9770 in the case of ILFI.

In order to ensure an acceptable degree of comparability between these two datasets, some methodological decisions have to be taken concerning:

- a) the birth cohorts under study: IMI (carried out in 1985) refers to the people born between 1920 and 1985, while ILFI (carried out in 1997) includes people born between 1900 and 1978. I have decided to exclude ILFI respondents born between 1900 and 1919, because these people were aged between 78 and 97 years old at the time of the interview, therefore recall problems, as well as attrition bias, are likely to be particularly severe [Peters 1989].
- b) the selection of the subpopulation to be analyzed for every transition: for the statistical models that refer to entry into upper secondary education, all respondents for which we have non-missing data can be included, however for subsequent educational transitions some respondents have to be excluded, because at the time of the interview they were still at risk of making these transitions. Thus, only people aged 21+ are included in the statistical models that refer to the attainment of an upper secondary degree; when I study access to university, I only focus on people aged 23+; finally, only respondents aged 30+ are included in the empirical analyses concerning the attainment of a tertiary degree. These criteria have been applied both to the ILFI and to the IMI data.
- c) educational outcomes are measured in the same way. In more detail, access to upper secondary schooling refers to entry into professional tracks (*istituti professionali*), technical tracks (*istituti tecnici*) or academic tracks (*licei*). I consider respondents who attend two-year or three-year non-academic courses at the tertiary level (*corsi di formazione post-diploma, diplomi universitari, Isef, Accademia delle Belle Arti*) as people attending university, just like people attending the traditional four- or five-years academic courses. Given the small numbers of people attending these tertiary non-academic tracks in Italy, it is not possible to carry out separate analyses for them.
- d) social origins: three different approaches have been considered in order to measure family background:
 - d1) a hybrid social status approach that includes both family's occupation and education (this is the strategy followed by Shavit and Westerbeek): the scale of occupational stratification drawn up by de Lillo and Schizzerotto [1985] is used for this purpose. This scale classifies the more than 13,000 occupations recorded by ISTAT (the national institute of statistics) into 93 occupational categories; then each category is assigned a score ranging from 9,97 to 90,20. The dominance approach, that selects the highest occupation between those of the father and of the mother, is applied. Moreover, together with this continuous variable, two dummy variables are included: the first one indicates whether the respondent's father (or mother) was a farmer or not; the second dummy variable indicates whether the respondent's father (or mother) was self-employed or not. Thus, the standard social status approach is integrated with two variables that aim at capturing the non-hierarchical influences of social origins. Moreover, family's education is included and, again, the dominance approach is used. In the original surveys,

respondents were asked to report on their parents' education and they could choose among several nominal response categories, ranging from "illiterate" to "university degree". Following Shavit and Westerbeek [1997], these categories have been recoded into school-years equivalents, ranging from 0 (illiterate) to 19 (university degree).

d2) the standard class approach (used in the 1993 study by Cobalti and Schizzerotto for the volume "*Persistent Inequality*"): only parental occupation is relevant here, while parental education is not considered.

I have employed the six-categories class scheme developed by Cobalti and Schizzerotto [1993]:

- Bourgeoisie (BOU): managers, self-employed professionals and salaried professionals, senior civil servants (this class corresponds roughly to the higher level of the service class in the CASMIN scheme).
- Middle Class (MC): lower grade professionals, middle level technicians, routine non-manual workers (this class corresponds to classes II, III and V in the CASMIN scheme, the main difference being that lower level non-manual workers have been excluded from this class and included in the working class).
- Urban Petite Bourgeoisie (UPB): artisans, storekeepers and other small independent workers (classes IVab).
- Agricultural Petite Bourgeoisie (APB): small independent workers in the primary sector (class IVc).
- Urban Working Class (UWC): skilled and unskilled manual workers in industry and in the services, low-level white collars (similar to classes VI and VIIa).
- Agricultural Working Class (AWC): manual workers in agricultural and fishing activities (class VIIb).

d3) this is the same as d1), but without the variable that refers to parents' years of schooling. By comparing results obtained via this approach to those obtained via d1) and d2), it is possible to establish whether including or excluding parental education, as well as using a social status or a class approach, can change our substantive conclusions.

For every educational transition and for both datasets, these three approaches have been implemented. For reasons of space, I present the tables for the models that make use of d1), and I comment verbally on the results concerning the two other approaches: d1) is my favourite strategy, not only because it includes parental education, but also because it describes the influences of parental occupation in a more parsimonious way, which is highly useful, given that for some transitions the number of cases is quite limited and there are several interaction effects to be fitted.

Finally, in this preliminary analysis, I only focus on upper secondary schooling. Although the final version of the paper will contain also some statistical analyses concerning access to tertiary education, it must be stressed that all previous studies agree that at this level no equalization is apparent. As discussed earlier, the substantive disagreement among scholars is limited to upper secondary education. As for lower secondary schooling, it must be noticed that, starting already with the cohorts born in the early '60s, more than 95% of the population obtains a lower secondary degree (*licenza media or diploma di avviamento professionale*), which means that IEO has no "space" to show up: that is why my analyses begin with the examination of the chances of access to upper secondary education.

Table 1 reports the descriptive statistics for the variables used in the analyses. These statistics refer to respondents born between 1920 and 1967 (i.e. the birth cohorts for which information is available in both datasets).

Tab. 1: Descriptive statistics for the IMI and the ILFI survey (1920-67)

Variable	ILFI	IMI
Gender: male	47,9	49,1
Gender: female	52,1	50,9
Area of residence: North-west	22,5	22,6
Area of residence: North-east	11,7	12,3
Area of residence: Centre	17,2	16,7
Area of residence: South	48,6	48,4
Attendance of upper secondary education	41,0	41,9
Attainment of a upper secondary degree	35,4	34,9
Attendance of tertiary education	17,1	17,0
Attainment of a university degree	9,2	6,8
Mean of parental years of schooling	5,5	5,5
Mean of parental socio-economic status	34,2	36,1
Cohort: 1920-29	13,9	16,7
Cohort: 1930-39	18,3	19,5
Cohort: 1940-49	23,1	20,6
Cohort: 1950-59	24,4	21,3
Cohort: 1960-67	20,3	21,9

It can be noticed that the empirical distributions of these variables for the two surveys are almost identical. Moreover, there is an almost complete correspondence also between these estimates and those made available by Istat [Cobalti, Schizzerotto 1994; Schizzerotto 2002].

4- Multivariate results for the ILFI Survey

Table 2 reports the estimates of a logistic regression model that refers to the chances of access to upper secondary education. Since this is an unconditional model, it can be influenced by carry-over effects originating from previous educational transitions. This model includes only the main effects of the independent variables, in order to allow for a preliminary overall view of schooling inequalities for the period 1920-78 . In order to ensure an easier substantive interpretation, the logit parameters have been transformed into odds ratios. In line with previous research (Cobalti, Schizzerotto 1993; Shavit, Westerbeek 1997), it can be seen that male students, people born in Centre Italy, younger cohorts and people from higher family background have better opportunities of access to upper secondary schooling. The two non-hierarchical effects of social origins indicate that offsprings of farmers and of self-employed display lower transition rates.

Tab. 2: Unconditional logit model of access to upper secondary schooling: main effects, ILFI survey (N=8659)

Variable	Odds ratio	St. err.
Gender: female	,66*	,03
Area of residence: North-east	,96	,09
Area of residence: Centre	1,46*	,13
Area of residence: South	,99	,06
Cohort: 1930-39	1,53*	,22
Cohort: 1940-49	3,05*	,40
Cohort: 1950-59	6,35*	,83
Cohort: 1960-67	8,17*	1,10
Cohort: 1968-78	9,17*	1,24
Parental years of schooling	1,34*	,01
Parental socio-economic status	1,03*	,00
Origin: farmers	,60*	,04
Origin: self-employed	,85*	,06

Reference categories: gender: male; area of residence: north-west; cohort: 1920-29

* = significant at the 5% level; ** = significant at the 10% level

Also table 3 refers to an unconditional logit model of access to upper secondary education, but now I introduce interaction effects between social origins and gender on one side, and birth cohort on the other (I only report the estimates for the interaction effects: the complete tables are available in the appendix). The results confirm that a gender equalization of chances of entry into upper secondary schools has taken place. The conditioning of parental education rises in the second cohort, then it remains stable, at least until the last cohort, where it declines: if one compares the first and the last cohort, no statistically significant difference is apparent. As for the effect of socio-economic position, results are rather clear-cut: no change at all. Only one sign of social origins equalization can be detected: the disadvantage of agricultural classes has reduced over time.

Tab. 3: Unconditional logit model of access to upper secondary schooling: interactions between social origins, gender and birth cohort, ILFI survey (N=8659)

Variable	Odds ratio	St. err.
Female* Cohort: 1930-39	,75	,22
Female* Cohort: 1940-49	1,04	,28
Female* Cohort: 1950-59	1,19	,32
Female* Cohort: 1960-67	2,38*	,65
Female* Cohort: 1968-78	2,84*	,77
Parental years of schooling* Cohort: 1930-39	1,09**	,05
Parental years of schooling* Cohort: 1940-49	1,10*	,05
Parental years of schooling* Cohort: 1950-59	1,07	,05
Parental years of schooling* Cohort: 1960-67	1,09**	,05
Parental years of schooling* Cohort: 1968-78	1,02	,05
Parental socio-economic status * Cohort: 1930-39	,98	,01
Parental socio-economic status * Cohort: 1940-49	,98	,01

Parental socio-economic status *Cohort: 1950-59	,99	,01
Parental socio-economic status *Cohort: 1960-67	,99	,01
Parental socio-economic status *Cohort: 1968-78	1,00	,01
Origin: farmers * Cohort: 1930-39	,98	,40
Origin: farmers *Cohort: 1940-49	1,43	,53
Origin: farmers *Cohort: 1950-59	1,88**	,68
Origin: farmers *Cohort: 1960-67	2,41*	,90
Origin: farmers *Cohort: 1968-78	2,46*	,96
Origin: self-employed * Cohort: 1930-39	,99	,34
Origin: self-employed *Cohort: 1940-49	1,20	,39
Origin: self-employed *Cohort: 1950-59	1,02	,34
Origin: self-employed *Cohort: 1960-67	,76	,26
Origin: self-employed *Cohort: 1968-78	,63	,21

Reference categories: gender: male; area of residence: north-west; cohort: 1920-29

In table 4 we consider a conditional logit model of access to upper secondary education: the population “at risk” is now restricted to people who have attained a lower secondary degree. As can be seen, the trend towards gender equalization can still be detected, although cohort differences are not statistically significant. The influence of parental education increases in the third cohort and then it remains stable. The effect of family social status is again completely constant and people from families of self-employed workers do not experience any change, at least in relative terms. Contrary to the results of the previous model, now students from an agricultural background face an increasing disadvantage, which is likely to reflect the very fact that they are less socially selected, because their participation in previous levels has increased. On the whole, it can be safely concluded that inequalities of access to upper secondary education related to family origins have not decreased among people who obtain a lower secondary degree: indeed, there is some indication that they have (non-linearly) grown.

Tab. 4: Conditional logit model of access to upper secondary schooling: interactions between social origins, gender and birth cohort, ILFI survey (N=6184)

Variable	Odds ratio	St. err.
Female* Cohort: 1930-39	,68	,25
Female* Cohort: 1940-49	,68	,23
Female* Cohort: 1950-59	,77	,25
Female* Cohort: 1960-67	1,36	,44
Female* Cohort: 1968-78	1,54	,50
Parental years of schooling* Cohort: 1930-39	1,04	,06
Parental years of schooling*Cohort: 1940-49	1,13*	,06
Parental years of schooling*Cohort: 1950-59	1,11*	,06
Parental years of schooling*Cohort: 1960-67	1,15*	,06
Parental years of schooling*Cohort: 1968-78	1,11*	,05
Parental socio-economic status * Cohort: 1930-39	0,99	,01
Parental socio-economic status *Cohort: 1940-49	1,00	,01
Parental socio-economic status *Cohort: 1950-59	1,00	,01
Parental socio-economic status *Cohort: 1960-67	1,00	,01

Parental socio-economic status *Cohort: 1968-78	1,00	,01
Origin: farmers * Cohort: 1930-39	,32*	,17
Origin: farmers *Cohort: 1940-49	,45**	,21
Origin: farmers *Cohort: 1950-59	,51	,23
Origin: farmers *Cohort: 1960-67	,56	,26
Origin: farmers *Cohort: 1968-78	,53	,25
Origin: self-employed * Cohort: 1930-39	1,30	,52
Origin: self-employed *Cohort: 1940-49	1,40	,52
Origin: self-employed *Cohort: 1950-59	1,28	,47
Origin: self-employed *Cohort: 1960-67	,92	,35
Origin: self-employed *Cohort: 1968-78	,93	,30

Reference categories: gender: male; area of residence: north-west; cohort: 1920-29

Finally, in table 5 we can consider an unconditional model that refers to the chances of attainment of an upper secondary degree. As can be seen, no statistically significant trend in the effects of social origins is apparent, with one relevant exception: the agricultural classes have reduced their disadvantage compared to the urban classes.

Tab. 5: Unconditional logit model of attainment of an upper secondary degree: interactions between social origins, gender and birth cohort, ILFI survey (N=8318)

Variable	Odds ratio	St. err.
Female* Cohort: 1930-39	1,07	,34
Female* Cohort: 1940-49	1,56	,45
Female* Cohort: 1950-59	2,07*	,58
Female* Cohort: 1960-64	3,34*	1,01
Female* Cohort: 1965-76	3,63*	1,01
Parental years of schooling* Cohort: 1930-39	1,03	,05
Parental years of schooling*Cohort: 1940-49	1,05	,05
Parental years of schooling*Cohort: 1950-59	1,05	,05
Parental years of schooling*Cohort: 1960-64	1,07	,05
Parental years of schooling*Cohort: 1965-76	1,00	,04
Parental socio-economic status * Cohort: 1930-39	,99	,01
Parental socio-economic status *Cohort: 1940-49	,99	,01
Parental socio-economic status *Cohort: 1950-59	,99	,01
Parental socio-economic status *Cohort: 1960-64	,99	,01
Parental socio-economic status *Cohort: 1965-76	1,00	,01
Origin: farmers * Cohort: 1930-39	1,31	,58
Origin: farmers *Cohort: 1940-49	1,51	,59
Origin: farmers *Cohort: 1950-59	2,01**	,78
Origin: farmers *Cohort: 1960-64	2,35*	1,00
Origin: farmers *Cohort: 1965-76	2,91*	1,15
Origin: self-employed * Cohort: 1930-39	1,18	,42
Origin: self-employed *Cohort: 1940-49	1,44	,47
Origin: self-employed *Cohort: 1950-59	1,02	,33
Origin: self-employed *Cohort: 1960-64	,90	,33
Origin: self-employed *Cohort: 1965-76	,70	,22

In the light of the results from the previous models that we have examined, it can be suggested that this very limited equalization arises from the growing participation of the agricultural classes at lower educational levels. We have seen that the *unconditional* chances of access to upper secondary schooling of the agricultural classes have increased (due to their growing participation at lower levels), while their relative *conditional* chances have decreased (probably due to selection effects): the model presented in table 5 indicates that the former trend “prevails” over the latter, thus producing an overall equalization. But no other reduction of IEO has emerged out of the analyses of the ILFI data.

A few comments on results obtained via the other strategies of measurement of social origin influences. Even if we do not include parental education among the independent variables, parental occupation effects remain unchanged (i.e. they still point to temporal stability). It may be argued, then, that parental occupation effects are robust to the inclusion or exclusion of the parental education variable (but it might be also concluded that, when the latter variable is excluded, its effects are not captured by parental occupation). Moreover, it should be stressed that we are led to the same substantive conclusions concerning trends in IEO also if we employ a standard class approach, instead of a social status approach, although this makes it more difficult to detect significant trends for the agricultural classes. It is now time to turn to the analyses of the IMI data.

5- Multivariate results for the IMI Survey

The results reported in this section are based on the same dataset, the same general methodology and the same strategy of measurement of social origins as in the analyses reported by Shavit and Westerbeek [1997], although some non-negligible differences should be mentioned: the birth cohort 1920-29, which is included in my analyses (it is the reference cohort), was not included in the study by Shavit and Westerbeek [1997]²; also the rules to exclude people who are still at risk of making any given transition are slightly different. However, these are minor differences, therefore it will not be surprising to find that my conclusions are in accordance with those suggested by Shavit and Westerbeek. What seems more interesting, however, is to compare these results with those based on the ILFI data, given that an identical methodology was applied. If we compare table 6 and table 2, it is noticeable to find that not only the general picture that emerges is very similar, but also that in many cases the parameter estimates are almost identical, as in the case of those referring to the influence of family education and socio-economic position.

Tab. 6: Unconditional logit model of access to upper secondary schooling: main effects, IMI survey (N=4809)

Variable	Odds ratio	St. err.
Gender: female	,60*	,04
Area of residence: North-east	,88	,12
Area of residence: Centre	1,14	,15
Area of residence: South	,94	,09
Cohort: 1930-39	1,21	,18

²I may speculate that they had some reservations concerning the reliability of the data for this cohort. The control analyses concerning the reliability of these data, including those reported by Shavit and Westerbeek in another paper [1996] seem however encouraging [Cobalti, Schizzerotto 1994].

Cohort: 1940-49	2,91*	,41
Cohort: 1950-59	7,34*	1,04
Cohort: 1960-67	9,02*	1,30
Parental years of schooling	1,34*	,02
Parental socio-economic status	1,03*	,00
Origin: farmers	,53*	,05
Origin: self-employed	,91	,09

Reference categories: gender: male; area of residence: north-west; cohort: 1920-29

The next step of my replication analysis is to examine the unconditional logit model of access to upper secondary schooling, where I introduce the usual interactions between social origins, gender and birth cohort. The results reported in table 7 have much in common with those reported in table 3: gender equalization is apparent, as well as the decreasing disadvantage of agricultural classes and the complete stability of the influences related to family socio-economic status. However, one relevant difference can be detected: in the IMI data the influence of parental schooling is decreasing over time. While in the analyses reported by Shavit and Westerbeek [1996, 1997] on the same data the corresponding parameters were marginally significant, in table 7 they do not reach statistical significance (but if merge the third and the fourth cohort, the interaction parameter would be significant).

Tab. 7: Unconditional logit model of access to upper secondary schooling: interactions between social origins, gender and birth cohort, IMI survey (N=4809)

Variable	Odds ratio	St. err.
Female* Cohort: 1930-39	,80	,27
Female* Cohort: 1940-49	1,39	,43
Female* Cohort: 1950-59	1,69**	,51
Female* Cohort: 1960-67	2,70*	,82
Parental years of schooling* Cohort: 1930-39	1,03	,07
Parental years of schooling*Cohort: 1940-49	0,93	,06
Parental years of schooling*Cohort: 1950-59	0,93	,06
Parental years of schooling*Cohort: 1960-67	0,95	,06
Parental socio-economic status * Cohort: 1930-39	1,00	,01
Parental socio-economic status *Cohort: 1940-49	,99	,01
Parental socio-economic status *Cohort: 1950-59	1,00	,01
Parental socio-economic status *Cohort: 1960-67	,99	,01
Origin: farmers * Cohort: 1930-39	1,25	,59
Origin: farmers *Cohort: 1940-49	1,47	,62
Origin: farmers *Cohort: 1950-59	2,15**	,90
Origin: farmers *Cohort: 1960-67	1,69	,73
Origin: self-employed * Cohort: 1930-39	1,27	,50
Origin: self-employed *Cohort: 1940-49	1,28	,45
Origin: self-employed *Cohort: 1950-59	0,89	,32
Origin: self-employed *Cohort: 1960-67	1,22	,44

Reference categories: gender: male; area of residence: north-west; cohort: 1920-29

The results for the conditional logit model of access to upper secondary education for the IMI data correspond very closely to the results reported in table 4 for the same model applied to the ILFI data. Therefore, I can simply summarize its substantive conclusions (see the appendix for the corresponding tables): a gender equalization, an increased disadvantage of the (less socially selected) agricultural classes, stable influences of family socio-economic position and an increasing advantage of children from the more educated families can be detected.

Finally, we can check what is the effect of the above described trends on the overall (unconditional) chances of attaining an upper secondary degree. Not surprisingly, we find evidence of a gender equalization, a reduced disadvantage of the agricultural classes (although it is not statistically significant, due to the smaller sample of the IMI data) and stable influences of family socio-economic position. But what seems interesting is that the influence of parental schooling *decreases* in the cohorts 1940-49 and 1950-59. It should be noted, however, that in the last cohort the interaction parameter is not statistically different from zero. And also if we compare the effects of parental education for third, the fourth and the fifth cohort, an image of overall temporal stability or, I would say, of trendless fluctuations, shows up.

Tab. 8: Unconditional logit model of attainment of an upper secondary degree: interactions between social origins, gender and birth cohort, IMI survey (N=4403)

Variable	Odds ratio	St. err.
Female* Cohort: 1930-39	,79	,28
Female* Cohort: 1940-49	1,30	,41
Female* Cohort: 1950-59	1,99**	,62
Female* Cohort: 1960-64	3,54**	1,17
Parental years of schooling* Cohort: 1930-39	0,98	,06
Parental years of schooling*Cohort: 1940-49	0,93	,05
Parental years of schooling*Cohort: 1950-59	0,89**	,05
Parental years of schooling*Cohort: 1960-64	0,95	,06
Parental socio-economic status * Cohort: 1930-39	1,00	,01
Parental socio-economic status *Cohort: 1940-49	,99	,01
Parental socio-economic status *Cohort: 1950-59	1,00	,01
Parental socio-economic status *Cohort: 1960-64	,99	,01
Origin: farmers * Cohort: 1930-39	1,03	,50
Origin: farmers *Cohort: 1940-49	1,09	,48
Origin: farmers *Cohort: 1950-59	1,61	,69
Origin: farmers *Cohort: 1960-64	1,23	0,58
Origin: self-employed * Cohort: 1930-39	1,13	,45
Origin: self-employed *Cohort: 1940-49	1,37	,49
Origin: self-employed *Cohort: 1950-59	0,97	,35
Origin: self-employed *Cohort: 1960-64	1,17	,46

Reference categories: gender: male; area of residence: north-west; cohort: 1920-29

Finally, it must be noticed that, also in the case of the IMI data, the control analyses that I have carried out indicate that we are led to the same substantive conclusions no matter if we use a class or a social status approach. As in the case of the ILFI data, the parental

occupation variable is insensitive to the inclusion, or the exclusion, of the parental education variable. This means that, if we exclude the parental schooling covariate, the conclusion of stable IEO is even reinforced.

6- Conclusions

The empirical analyses carried out in this paper point to a number of substantive results concerning trends in IEO at the upper secondary level that may be summarize as follows:

- a) a gender equalization in favour of females has taken place in Italy.
- b) the influence of family socio-economic position, as expressed by the scale of social stratification drawn up by de Lillo and Schizzerotto, has remained stable over the 20th century in Italy.
- c) the influence of parental education may be increasing or decreasing in the initial cohorts, but in subsequent cohorts it looks rather stable: no long-term trend is apparent.
- d) the agricultural classes have reduced their disadvantage compared to the urban classes. This is the result of carry-over effects due to the saturation of educational participation at the primary and lower secondary levels; on the other hand, relative inequalities among people who take part in a upper secondary education (as revealed by conditional logit models) are rather stable, or even increasing because of selection effects.

These results indicate an overall stability of the influences of social origins, with a very limited equalization restricted to the agricultural classes. Moreover, with the only relevant exception of the conclusion concerning point c), the convergence of substantive results obtained from the two analyzed surveys is remarkable. As suggested by Shavit and Westerbeek [1997] with reference to the IMI data, introducing parental education can change our substantive conclusions: this conclusion applies also to the ILFI dataset. In the case of the Italian data, the standard class approach leads to similar conclusions as the social status approach (without parental education), although it makes somewhat more difficult to detect trends, probably because of its less parsimonious specification. Finally, if we go back to theory, it can be safely concluded that the overall stability of the influences of social origins in Italy, as well as the discontinuous nature of the few observed changes, seem at odds with the predictions of modernization theory.

References:

Simkus A., Andorka R., 1982, *Inequalities in educational attainment in Hungary*, in *American Sociological Review*, 47, 6.

Bell D., 1973, *The coming of post-industrial society*, New York, Basic Books.

Blossfeld H., Shavit Y. (eds), 1993, *Persistent inequality: a comparative study of educational attainment in thirteen countries*, Boulder, Westview Press.

Breen R., Goldthorpe J.H., 1997, *Explaining educational differentials: towards a formal rational action theory*, in *Rationality and Society*, 13.

Breen R., Jonsson J., 2000, *A multinomial transition model for analyzing educational careers*, in *American Sociological Review*, 65, 5.

Cameron S. Heckman J., 1998, *Life cycle schooling and dynamic selection bias*, in *Journal of Political Economy*, 106, 21.

Cobalti A., *Schooling Inequalities in Italy: Trends over Time*, in *European Sociological Review*, vol. 6, n. 3.

Cobalti A., Schizzerotto A., 1993, *Inequality of educational opportunity in Italy*, in Blossfeld H., Shavit Y. (eds), *Persistent inequality: a comparative study of educational attainment in thirteen countries*, Boulder, Westview Press.

Cobalti A., Schizzerotto A., 1994, *La mobilità sociale in Italia*, Bologna, il Mulino.

de Lillo A., Schizzerotto A., 1985, *La valutazione sociale delle occupazioni*, Bologna, il Mulino.

Duru-Bellat M., Kieffer A., 2000, *La démocratisation de l'enseignement revisitée*, in *Cahiers de l'Irédu*, 60.

Erikson R., 1996, *Explaining class inequality in education: the Swedish test case*, in Erikson R., Jonsson J. (eds), *Can education be equalized? The Swedish case in comparative perspective*, Boulder, Westview Press.

Erikson R., Goldthorpe J.H., 1992, *The Constant Flux: a study of class mobility in industrial societies*, Oxford, Clarendon Press.

Gambetta D., 1990, *Per amore o per forza?*, Bologna, Il Mulino.

Ganzeboom H., De Graaf P., 1993, *Family background and educational attainment in the Netherlands*, in Blossfeld H., Shavit Y. (eds), *Persistent inequality: a comparative study of educational attainment in thirteen countries*, Boulder, Westview Press.

Garnier M., Raffalovich L., 1984, *The Evolution of equality of educational opportunities in France*, in *Sociology of Education*, 57.

Jonsson J., 1987, *Class origin, cultural origin and educational attainment: the case of Sweden*, in *European Sociological Review*, 3, 3.

Jonsson J., 1993, *Persisting inequalities in Sweden*, in Blossfeld H., Shavit Y. (eds), *Persistent inequality: a comparative study of educational attainment in thirteen countries*, Boulder, Westview Press.

Jonsson J., Mills C., Mueller W., 1996, *A half century of increasing openness? Social class, gender and educational attainment in Sweden, Germany and Britain*, in Erikson R., Jonsson J. (eds), *Can education be equalized? The Swedish case in comparative perspective*, Boulder, West view Press.

Lindbekk T., 1993, *School reforms in Norway and Sweden and the redistribution of educational attainments*, in *Scandinavian Journal of Educational Research*, 37.

Mare R., 1981, *Change and stability in educational stratification*, in *American Sociological Review*, 46.

Mare R., 1993, *Educational stratification on observed and unobserved components of family background*, in Blossfeld H., Shavit Y. (eds), *Persistent inequality: a comparative study of educational attainment in thirteen countries*, Boulder, Westview Press.

Parsons T., 1970, *Equality and inequality in modern society*, in Lauman D. (ed.), *Stratification: theory and research for the 70's*, New York, Prentice Press.

Peters H., 1989, *Retrospective versus panel data in analyzing life cycle events*, in *Journal of Human Resources*, 23,4.

Pisati M., 2002, *La partecipazione al sistema scolastico*, in Schizzerotto A. (ed.), *Vite ineguali*, Bologna, il Mulino.

Pisati M., Schizzerotto A., 2004, *The Italian mobility regime, 1985-1997*, in Breen R. (ed.), *Social Mobility in Europe*, Oxford, Oxford University Press.

Robert P., 1991, *Educational transitions in Hungary from the post-war period*, in *European Sociological Review*, 7, 3.

Schadee H., Schizzerotto A., 1987, *Social mobility of men and women in Italy*, working paper of the Dipartimento di Sociologia e Ricerca Sociale, n. 17.

Schizzerotto A., 2002, *Vite ineguali*, Bologna, il Mulino.

APPENDIX.txt

MULTIVARIATE MODELS: THE COMPLETE TABLES

In this appendix, I report the complete tables for the logit models reported in the text.

The abbreviations used for the statistical covariates are:

- female= dummy for the effect of being female (ref. cat. = male)
- zone4_2= dummy for the effect of living in North-eastern Italy (ref. cat. = North-west)
- zone4_3= dummy for the effect of living in Centre Italy (ref. cat. = North-west)
- zone4_4= dummy for the effect of living in Southern Italy (ref. cat. = North-West)
- cohort2= cohort 1930-39 (ref. cat. = 1920-29)
- cohort3= cohort 1940-49 (ref. cat. = 1920-29)
- cohort4= cohort 1950-59 (ref. cat. = 1920-29)
- cohort5= cohort 1960-67 (ref. cat. = 1920-29)
- cohort6= cohort 1968-78 (ref. cat. = 1920-29)
- orfam_score= family social status (de Lillo-Schizzerotto's scale)
- selfemp= family of self-employed workers
- agr= family of agricultural workers
- orfam_educy= parental years of schooling
- coo X sex_n= interaction effect of cohort n by gender(female)
- coo X occ_n= interaction effect of cohort n by family social status
- coo X self_n= interaction effect of cohort n by family of self-employed workers
- coo X agr_n= interaction effect of cohort n by family of agricultural workers
- coo X educa_n= interaction effect of cohort n by parental years of schooling

TABLES THAT REFER TO SECTION 4: ILFI DATA

Model reported in table 2: Unconditional logit model of access to upper secondary schooling: main effects, ILFI survey (N=8659)

Logit estimates		Number of obs = 8659				
supfr	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	.665604	.0373657	-7.25	0.000	.5962537	.7430204
zone4_2	.9633144	.0966553	-0.37	0.710	.7913375	1.172666
zone4_3	1.46691	.1343385	4.18	0.000	1.225889	1.755319
zone4_4	.9915023	.0699288	-0.12	0.904	.8634954	1.138485
cohort2	1.536858	.2210045	2.99	0.003	1.159387	2.037224
cohort3	3.059085	.4079274	8.38	0.000	2.355506	3.972819
cohort4	6.350874	.833665	14.08	0.000	4.910188	8.214267
cohort5	8.179396	1.104988	15.56	0.000	6.276665	10.65893
cohort6	9.177262	1.245208	16.34	0.000	7.034264	11.97313
orfam_score	1.030971	.0027713	11.35	0.000	1.025554	1.036417
selfemp	.8570627	.0679234	-1.95	0.052	.7337595	1.001086
agr	.6058593	.0489463	-6.20	0.000	.5171359	.7098048
orfam_educy	1.340745	.0161207	24.39	0.000	1.309518	1.372716

Model reported in table 3: Unconditional logit model of access to upper secondary schooling: interactions between social origins, gender and birth cohort, ILFI survey (N=8659)

Logit estimates		Number of obs = 8659				
supfr	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	.4420237	.1069322	-3.37	0.001	.2751231	.7101728

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zone4_2	. 9716499	. 0981361	-0. 28	0. 776	. 7971479	1. 184352
zone4_3	1. 501698	. 1391012	4. 39	0. 000	1. 25238	1. 800647
zone4_4	. 9879672	. 0702353	-0. 17	0. 865	. 8594685	1. 135678
cohort2	2. 58053	1. 466435	1. 67	0. 095	. 8472229	7. 859958
cohort3	2. 745937	1. 452876	1. 91	0. 056	. 9734635	7. 745716
cohort4	4. 732142	2. 472815	2. 97	0. 003	1. 699245	13. 1783
cohort5	2. 130694	1. 179113	1. 37	0. 172	. 7202302	6. 30333
cohort6	2. 195591	1. 20001	1. 44	0. 150	. 7521831	6. 408837
orfam_score	1. 04345	. 0088352	5. 02	0. 000	1. 026276	1. 060911
sel_femp	. 9391372	. 257561	-0. 23	0. 819	. 5486364	1. 607583
agr	. 3470234	. 1132401	-3. 24	0. 001	. 1830611	. 6578419
orfam_educy	1. 262334	. 0466691	6. 30	0. 000	1. 1741	1. 3572
coo X sex_2	. 75773	. 229255	-0. 92	0. 359	. 4187735	1. 371039
coo X sex_3	1. 049636	. 2883099	0. 18	0. 860	. 6126808	1. 798223
coo X sex_4	1. 198024	. 3206571	0. 68	0. 500	. 708985	2. 024388
coo X sex_5	2. 380878	. 6508791	3. 17	0. 002	1. 393278	4. 068523
coo X sex_6	2. 846819	. 7748251	3. 84	0. 000	1. 669885	4. 853257
coo X occ~2	. 9829607	. 0109417	-1. 54	0. 123	. 9617476	1. 004642
coo X occ_3	. 9835236	. 0100249	-1. 63	0. 103	. 9640702	1. 00337
coo X occ_4	. 9882442	. 0102336	-1. 14	0. 253	. 9683888	1. 008507
coo X occ_5	. 9873993	. 010817	-1. 16	0. 247	. 9664244	1. 00883
coo X occ_6	. 9953103	. 0106717	-0. 44	0. 661	. 9746124	1. 016448
coo X sel f2	. 9893722	. 3440529	-0. 03	0. 975	. 500444	1. 955978
coo X sel f3	1. 208885	. 3926284	0. 58	0. 559	. 6396273	2. 284772
coo X sel f4	1. 020599	. 3305542	0. 06	0. 950	. 5409611	1. 925505
coo X sel f5	. 7632291	. 2602566	-0. 79	0. 428	. 3912012	1. 489051
coo X sel f6	. 6370634	. 2107481	-1. 36	0. 173	. 3331157	1. 218345
coo X agr_2	. 9875292	. 4088677	-0. 03	0. 976	. 4386581	2. 223176
coo X agr_3	1. 438515	. 5333977	0. 98	0. 327	. 69549	2. 975348
coo X agr_4	1. 880738	. 6837123	1. 74	0. 082	. 9223329	3. 835033
coo X agr_5	2. 415621	. 9099779	2. 34	0. 019	1. 154454	5. 054535
coo X agr_6	2. 463725	. 9611966	2. 31	0. 021	1. 146845	5. 292729
coo X educa2	1. 098504	. 054717	1. 89	0. 059	. 9963287	1. 211156
coo X educa3	1. 10276	. 0513484	2. 10	0. 036	1. 006575	1. 208136
coo X educa4	1. 072061	. 0499306	1. 49	0. 135	. 9785329	1. 174529
coo X educa5	1. 089541	. 0527436	1. 77	0. 076	. 9909176	1. 197979
coo X educa6	1. 025992	. 0458402	0. 57	0. 566	. 9399679	1. 119888

Model reported in table 4: Conditional logit model of access to upper secondary schooling: interactions between social origins, gender and birth cohort, ILFI survey (N=6184)

Logit estimates		Number of obs = 6184				
supfr	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	. 8376262	. 2473405	-0. 60	0. 548	. 4695708	1. 494168
zone4_2	1. 103608	. 1218917	0. 89	0. 372	. 8887933	1. 370341
zone4_3	1. 937615	. 2041884	6. 28	0. 000	1. 576039	2. 382145
zone4_4	1. 224256	. 0939289	2. 64	0. 008	1. 053332	1. 422916
cohort2	3. 105905	2. 105108	1. 67	0. 095	. 8227428	11. 72498
cohort3	1. 666026	1. 04943	0. 81	0. 418	. 4847409	5. 726032
cohort4	1. 817606	1. 112268	0. 98	0. 329	. 5477904	6. 03094
cohort5	. 6672749	. 4230443	-0. 64	0. 523	. 1925986	2. 311833
cohort6	. 7266682	. 4556509	-0. 51	0. 611	. 2126169	2. 483559

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orfam_score	1,026565	,0096946	2,78	0,005	1,007738	1,045743
sel femp	,7357713	,2295631	-0,98	0,325	,3991767	1,35619
agr	1,441996	,6164435	0,86	0,392	,6238515	3,333089
orfam_educy	1,1565	,0506113	3,32	0,001	1,061439	1,260075
coo X sex_2	,6808792	,2506784	-1,04	0,296	,3308905	1,401057
coo X sex_3	,6816606	,2276903	-1,15	0,251	,354199	1,311865
coo X sex_4	,7760624	,249707	-0,79	0,431	,4130596	1,458077
coo X sex_5	1,365856	,4424634	0,96	0,336	,7238721	2,5772
coo X sex_6	1,544047	,4984851	1,35	0,178	,8200792	2,907135
coo X occ_2	,986163	,0123668	-1,11	0,267	,9622199	1,010702
coo X occ_3	,9967705	,0116801	-0,28	0,783	,9741388	1,019928
coo X occ_4	1,000935	,011522	0,08	0,935	,9786051	1,023774
coo X occ_5	1,00338	,0119616	0,28	0,777	,9802072	1,0271
coo X occ_6	1,007224	,0116913	0,62	0,535	,9845678	1,030401
coo X sel f2	1,309128	,5242772	0,67	0,501	,5971655	2,86992
coo X sel f3	1,399664	,5270234	0,89	0,372	,6691387	2,927734
coo X sel f4	1,28196	,4687674	0,68	0,497	,6260665	2,624997
coo X sel f5	,9179232	,3463251	-0,23	0,820	,4381822	1,922905
coo X sel f6	,8098283	,2962806	-0,58	0,564	,3953445	1,658862
coo X agr_2	,3240624	,169863	-2,15	0,032	,1159995	,9053175
coo X agr_3	,4552703	,2166601	-1,65	0,098	,1791381	1,157046
coo X agr_4	,5097135	,2363292	-1,45	0,146	,2054308	1,264697
coo X agr_5	,5629376	,2649391	-1,22	0,222	,2237966	1,416012
coo X agr_6	,5272784	,2540222	-1,33	0,184	,2050993	1,355551
coo X educa2	1,044188	,0604738	0,75	0,455	,9321407	1,169703
coo X educa3	1,132807	,0632204	2,23	0,025	1,015434	1,263748
coo X educa4	1,111157	,0599042	1,96	0,051	,9997368	1,234994
coo X educa5	1,146121	,0620015	2,52	0,012	1,030821	1,274318
coo X educa6	1,107106	,0563635	2,00	0,046	1,001968	1,223276

Model reported in table 5: Unconditional logit model of attainment of an upper secondary degree: interactions between social origins, gender and birth cohort, ILFI survey (N=8318)

Logit estimates		Number of obs = 8318				
dipl o	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	,3606398	,0931667	-3,95	0,000	,2173585	,5983713
zone4_2	,9083966	,0912544	-0,96	0,339	,746048	1,106074
zone4_3	1,382977	,124765	3,59	0,000	1,158842	1,650464
zone4_4	,9678532	,0677096	-0,47	0,640	,8438411	1,11009
cohort2	1,123134	,6425945	0,20	0,839	,3659497	3,447002
cohort3	1,526613	,7987122	0,81	0,419	,5475033	4,256681
cohort4	1,779188	,9184417	1,12	0,264	,646874	4,893549
cohort5	,856536	,5007689	-0,26	0,791	,27233	2,693989
cohort6	,8914713	,4599021	-0,22	0,824	,3243247	2,450387
orfam_score	1,032091	,008747	3,73	0,000	1,015088	1,049378
sel femp	,8993603	,256169	-0,37	0,710	,5146145	1,571757
agr	,3420119	,1205421	-3,04	0,002	,1714096	,6824131
orfam_educy	1,26092	,0467402	6,25	0,000	1,17256	1,355939
coo X sex_2	1,074385	,3432327	0,22	0,822	,5744172	2,009521
coo X sex_3	1,567581	,4526469	1,56	0,120	,8901052	2,760697
coo X sex_4	2,075738	,5845929	2,59	0,010	1,195219	3,604936
coo X sex_5	3,343333	1,010554	3,99	0,000	1,848825	6,045934
coo X sex_6	3,639843	1,013487	4,64	0,000	2,108977	6,281934

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coo X occ_2	,9931151	,0109731	-0,63	0,532	,9718394	1,014857
coo X occ_3	,9864427	,0098361	-1,37	0,171	,9673514	1,005911
coo X occ_4	,9915709	,0099749	-0,84	0,400	,972212	1,011315
coo X occ_5	,9917115	,0112482	-0,73	0,463	,9699087	1,014004
coo X occ_6	1,00082	,0098081	0,08	0,933	,9817795	1,020229
coo X sel f2	1,186913	,4233961	0,48	0,631	,589899	2,38814
coo X sel f3	1,440645	,4749556	1,11	0,268	,7549715	2,749054
coo X sel f4	1,018688	,3330239	0,06	0,955	,5367491	1,933354
coo X sel f5	,9036044	,3298801	-0,28	0,781	,4418034	1,848109
coo X sel f6	,6901089	,2206439	-1,16	0,246	,3687812	1,291417
coo X agr_2	1,31849	,5778493	0,63	0,528	,5585011	3,112644
coo X agr_3	1,517185	,5985903	1,06	0,291	,7001733	3,287545
coo X agr_4	2,014127	,7791418	1,81	0,070	,9436463	4,298969
coo X agr_5	2,358182	,9992354	2,02	0,043	1,027772	5,410757
coo X agr_6	2,912505	1,153911	2,70	0,007	1,339761	6,331488
coo X educa2	1,033544	,0498306	0,68	0,494	,9403508	1,135974
coo X educa3	1,053769	,0472934	1,17	0,243	,9650358	1,150662
coo X educa4	1,052275	,0477563	1,12	0,262	,9627169	1,150165
coo X educa5	1,070305	,0547521	1,33	0,184	,9681974	1,183181
coo X educa6	,9983663	,0419262	-0,04	0,969	,9194833	1,084017

TABLES THAT REFER TO SECTION 5: IMI DATA

Model reported in table 6: Unconditional logit model of access to upper secondary schooling: main effects, IMI survey (N=4809)

Logit estimates	Number of obs = 4809					
supfr	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	,5994982	,0458025	-6,70	0,000	,5161249	,6963392
zone4_2	,8824516	,1187215	-0,93	0,353	,6779125	1,148704
zone4_3	1,140184	,139388	1,07	0,283	,8972533	1,448887
zone4_4	,9432035	,0911759	-0,60	0,545	,7804103	1,139955
cohort2	1,216093	,187839	1,27	0,205	,8984403	1,646055
cohort3	2,909804	,4155363	7,48	0,000	2,199416	3,84964
cohort4	7,348481	1,042227	14,06	0,000	5,565096	9,703368
cohort5	9,024413	1,30535	15,21	0,000	6,796661	11,98236
orfam_score	1,029083	,0035061	8,41	0,000	1,022235	1,035978
sel femp	,91507	,0938259	-0,87	0,387	,7484748	1,118746
agr	,5306427	,0557037	-6,04	0,000	,4319645	,6518629
orfam_educy	1,342518	,0240175	16,46	0,000	1,29626	1,390426

Model reported in table 7: Unconditional logit model of access to upper secondary schooling: interactions between social origins, gender and birth cohort, IMI survey (N=4809)

Logit estimates	Number of obs = 4809					
supfr	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	,3840737	,1020805	-3,60	0,000	,2281284	,6466212

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zone4_2	, 8930076	, 1205615	-0, 84	0, 402	, 68539	1, 163517
zone4_3	1, 139527	, 1408858	1, 06	0, 291	, 8943053	1, 451988
zone4_4	, 9256799	, 0904036	-0, 79	0, 429	, 764418	1, 120962
cohort2	1, 189393	, 7817098	0, 26	0, 792	, 3280097	4, 312848
cohort3	3, 411163	1, 978388	2, 12	0, 034	1, 094529	10, 63109
cohort4	4, 120719	2, 422385	2, 41	0, 016	1, 301937	13, 04236
cohort5	3, 365541	2, 02228	2, 02	0, 043	1, 036541	10, 92756
orfam_score	1, 034707	, 0091545	3, 86	0, 000	1, 01692	1, 052806
agr	, 32904	, 1217875	-3, 00	0, 003	, 1592919	, 6796787
sel femp	, 8143027	, 2344766	-0, 71	0, 476	, 4631102	1, 431817
orfam_educy	1, 39913	, 070875	6, 63	0, 000	1, 266891	1, 545173
coo X sex_2	, 8017687	, 2772276	-0, 64	0, 523	, 4071262	1, 578953
coo X sex_3	1, 394958	, 4293082	1, 08	0, 279	, 7631286	2, 549907
coo X sex_4	1, 694661	, 5131926	1, 74	0, 082	, 9360829	3, 067972
coo X sex_5	2, 702699	, 8279767	3, 25	0, 001	1, 482622	4, 926798
coo X occ_2	1, 000552	, 0124917	0, 04	0, 965	, 9763658	1, 025337
coo X occ_3	, 9878541	, 0108511	-1, 11	0, 266	, 9668136	1, 009352
coo X occ_4	1, 00295	, 0116413	0, 25	0, 800	, 9803912	1, 026028
coo X occ_5	, 9879949	, 0115381	-1, 03	0, 301	, 9656375	1, 01087
coo X sel f2	1, 278983	, 5000243	0, 63	0, 529	, 5944066	2, 751984
coo X sel f3	1, 284534	, 4493028	0, 72	0, 474	, 6471625	2, 549634
coo X sel f4	, 888245	, 3216137	-0, 33	0, 743	, 4368493	1, 806067
coo X sel f5	1, 225938	, 4470755	0, 56	0, 576	, 5998631	2, 505446
coo X agr_2	1, 258335	, 5881542	0, 49	0, 623	, 5034297	3, 145238
coo X agr_3	1, 47616	, 6266806	0, 92	0, 359	, 6423465	3, 392327
coo X agr_4	2, 158117	, 906763	1, 83	0, 067	, 9471765	4, 917215
coo X agr_5	1, 690527	, 7314889	1, 21	0, 225	, 7239494	3, 947625
coo X educa2	1, 02977	, 0694781	0, 43	0, 664	, 9022146	1, 175358
coo X educa3	, 9314346	, 0576585	-1, 15	0, 251	, 8250126	1, 051585
coo X educa4	, 9313852	, 0579697	-1, 14	0, 253	, 8244234	1, 052224
coo X educa5	, 954457	, 0615056	-0, 72	0, 469	, 8412103	1, 082949

Model commented after table 7: TRANSIZ A SC SUP- CONDIZIONALE -APPR DI STATUS-CON INTERAZ DI EDUC e STATUS

Logit estimates		Number of obs = 2901				
supfr	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
female	, 4792334	, 1567705	-2, 25	0, 025	, 2524036	, 9099104
zone4_2	, 9785483	, 1519474	-0, 14	0, 889	, 7217871	1, 326647
zone4_3	1, 14538	, 1643532	0, 95	0, 344	, 8645867	1, 517366
zone4_4	1, 137032	, 1295596	1, 13	0, 260	, 909457	1, 421554
cohort2	, 2804273	, 2283378	-1, 56	0, 118	, 0568499	1, 383282
cohort3	1, 086481	, 7826555	0, 12	0, 908	, 2647602	4, 458534
cohort4	1, 068381	, 7707137	0, 09	0, 927	, 2598259	4, 393088
cohort5	, 5447008	, 3910285	-0, 85	0, 397	, 1333827	2, 224419
orfam_score	1, 033443	, 0125037	2, 72	0, 007	1, 009225	1, 058243
sel femp	, 8096178	, 3072437	-0, 56	0, 578	, 3848182	1, 703352
agr	1, 046573	, 5266042	0, 09	0, 928	, 3903645	2, 805877
orfam_educy	1, 112268	, 0633008	1, 87	0, 062	, 9948705	1, 24352
coo X sex_2	1, 095663	, 4585446	0, 22	0, 827	, 4824378	2, 488355
coo X sex_3	1, 542129	, 5870346	1, 14	0, 255	, 7313039	3, 251946
coo X sex_4	1, 481672	, 5477236	1, 06	0, 288	, 7179462	3, 057822
coo X sex_5	2, 039343	, 7464497	1, 95	0, 052	, 9952439	4, 178794

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coo X occ_2	, 9987075	, 0160757	-0, 08	0, 936	, 9676915	1, 030717
coo X occ_3	, 9793222	, 0140922	-1, 45	0, 146	, 9520878	1, 007336
coo X occ_4	, 9996114	, 014915	-0, 03	0, 979	, 9708018	1, 029276
coo X occ_5	, 9916906	, 0146476	-0, 56	0, 572	, 9633934	1, 020819
coo X sel f2	1, 164792	, 5680549	0, 31	0, 754	, 447845	3, 029486
coo X sel f3	1, 184527	, 5327	0, 38	0, 707	, 4906217	2, 859851
coo X sel f4	, 8300158	, 3789323	-0, 41	0, 683	, 3392204	2, 03091
coo X sel f5	1, 180211	, 5336418	0, 37	0, 714	, 4864993	2, 863105
coo X agr_2	, 995352	, 6136122	-0, 01	0, 994	, 2973241	3, 332141
coo X agr_3	, 7683238	, 4388915	-0, 46	0, 645	, 2507901	2, 353847
coo X agr_4	, 7171733	, 3984588	-0, 60	0, 550	, 2413791	2, 130829
coo X agr_5	, 4826966	, 2689496	-1, 31	0, 191	, 1619573	1, 438626
coo X educa2	1, 174919	, 0950223	1, 99	0, 046	1, 002689	1, 376732
coo X educa3	1, 085558	, 0770943	1, 16	0, 248	, 9445006	1, 247681
coo X educa4	1, 079663	, 0755222	1, 10	0, 273	, 9413404	1, 23831
coo X educa5	1, 144768	, 0814994	1, 90	0, 058	, 9956759	1, 316185

Model reported in table 8: Unconditional logit model of attainment of an upper secondary degree: interactions between social origins, gender and birth cohort, IMI survey (N=4403)

Logit estimates Number of obs = 4403

dipl o	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
femal e	, 462792	, 1281742	-2, 78	0, 005	, 2689294 , 796404
zone4_2	1, 052782	, 1484883	0, 36	0, 715	, 7985125 1, 388018
zone4_3	1, 182449	, 1524224	1, 30	0, 194	, 9184576 1, 522319
zone4_4	, 9074052	, 0928179	-0, 95	0, 342	, 7425614 1, 108843
cohort2	1, 253672	, 865534	0, 33	0, 743	, 3239774 4, 85124
cohort3	3, 352592	2, 038232	1, 99	0, 047	1, 018326 11, 0376
cohort4	3, 691003	2, 218928	2, 17	0, 030	1, 136124 11, 99121
cohort5	2, 112944	1, 382656	1, 14	0, 253	, 5859808 7, 618903
orfam_score	1, 028711	, 0092589	3, 15	0, 002	1, 010723 1, 047019
sel femp	, 8910396	, 2689091	-0, 38	0, 702	, 493186 1, 609842
agr	, 4343621	, 1648473	-2, 20	0, 028	, 2064465 , 913895
orfam_educy	1, 38981	, 0690159	6, 63	0, 000	1, 260915 1, 53188
coo X sex_2	, 7971355	, 2856884	-0, 63	0, 527	, 3948815 1, 609153
coo X sex_3	1, 307822	, 418438	0, 84	0, 402	, 698564 2, 448447
coo X sex_4	1, 990149	, 6186193	2, 21	0, 027	1, 082175 3, 659937
coo X sex_5	3, 543486	1, 173687	3, 82	0, 000	1, 851366 6, 782175
coo X occ_2	1, 009169	, 0127261	0, 72	0, 469	, 9845323 1, 034423
coo X occ_3	, 9911999	, 0110064	-0, 80	0, 426	, 9698609 1, 013009
coo X occ_4	1, 001921	, 0111791	0, 17	0, 863	, 9802478 1, 024072
coo X occ_5	, 9829002	, 012256	-1, 38	0, 167	, 9591701 1, 007217
coo X sel f2	1, 131036	, 4550677	0, 31	0, 760	, 5140423 2, 488593
coo X sel f3	1, 367585	, 4947289	0, 87	0, 387	, 6730216 2, 778943
coo X sel f4	, 9749556	, 3529382	-0, 07	0, 944	, 4795635 1, 982091
coo X sel f5	1, 175675	, 4625674	0, 41	0, 681	, 5437304 2, 542092
coo X agr_2	1, 037311	, 5023264	0, 08	0, 940	, 4015201 2, 679849
coo X agr_3	1, 09151	, 4787626	0, 20	0, 842	, 46203 2, 578608
coo X agr_4	1, 610432	, 6888373	1, 11	0, 265	, 6963929 3, 72418
coo X agr_5	1, 230102	, 5824443	0, 44	0, 662	, 4862989 3, 111565
coo X educa2	, 976435	, 0629955	-0, 37	0, 712	, 8604535 1, 10805
coo X educa3	, 9309811	, 0563565	-1, 18	0, 237	, 8268253 1, 048257

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coo X educa4	, 8956319	, 0529301	-1, 87	0, 062	, 7976735	1, 00562
coo X educa5	, 95364	, 0638662	-0, 71	0, 478	, 836332	1, 087402

Schizzerotto A., Barone C., 2005, *Manuale di sociologia dell'istruzione*, Bologna, il Mulino, in corso di pubblicazione.

Shavit Y., Westerbeek K., 1996, *Stratification in Italy: an investigation of failed reforms* EUI, working paper 58.

Shavit Y., Westerbeek K., 1997, *Educational stratification in Italy. Reforms, expansion, and equality of opportunity*, in *European Sociological Review*, 14.

Starvik J., 2001, *Social background and educational attainment in Norway, 1973-95*, paper presented at the conference of the Research Committee 28 on Social Stratification, April, Mannheim.

Treiman D., 1970, *Industrialization and social stratification*, in Laumann E. (ed.), *Social stratification: research and theory for the 70s*, Indianapolis, Bobbs Merrill.

Treiman D., Yip K., 1989, *Educational and occupational attainment in 21 countries*, in Kohn M., *Cross-national research in sociology*, Newbury Park, Sage.

Vallet L., 2004, *The dynamics of educational opportunity in France*, paper available at: <http://www.crest.fr/pageperso/vallet/Neuchatel.pdf>