

# **Inequality of Opportunity and the Transition from School to Work in Mexico City\***

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## **Abstract**

Studies on social inequality in Latin America have mainly focused on inequality of condition, thus overlooking the factors contributing to the perseverance of inequality over time. It has been suggested that in order to understand these factors it is necessary to study how inequality of condition translates into inequality of opportunity. Using a life-course approach, in this paper I explore the extent in which socioeconomic circumstances of origin affect educational and occupational outcomes during the school-to-work transition in Mexico City (age at leaving school, years of education, age of entry into the labor force, and occupation of entry into the labor force). Results indicate that inequality of condition in social origins closely relates to inequality of outcomes, even after controlling by standard sociodemographic variables. These results point to the importance of the school-to-work transition as a crucial life-course stage in the intergenerational reproduction of social inequalities in urban Mexico.

## **Introduction**

A classical distinction in studies of social inequality is between inequality of condition and inequality of opportunity. Inequality of condition refers to the uneven distribution of wealth, education, health or other assets among members of a society in a given moment in time. Inequality of opportunity refers to the extent in which access to these assets depends on ascribed or inherited circumstances such as the socioeconomic circumstances of the family of origin, gender or race/ethnicity (Boudon 1983, Breen & Jonsson 2005). Even when empirically these two different forms of inequality should be related (in societies with high inequality of condition the distribution of inherited family resources is more uneven and therefore we might expect also high inequality of opportunity), the conceptual distinction is important at least for two reasons: first, given a certain level of inequality of condition, it is theoretically possible to observe different levels of inequality of opportunity, depending among other factors on the operation of social institutions that “level the field” of opportunities (such as compensatory educational systems or other welfare policies). Second, and most important for the purposes of this paper, by studying inequality of opportunity it is possible to highlight the dynamic processes that lead to the

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reproduction of social inequality across generations and over time.

In Mexico, as in most Latin American countries, studies of social inequality have mainly focused on inequality of condition, thus providing overall measures of inequality levels but overlooking the mechanisms that contribute to its reproduction over time. This situation has gradually changed during the last decade, after a series of sociodemographic studies, most of them interested on analyzing the effects of structural change on social inequality, started collecting and analyzing data on social mobility (Cortés and Escobar 2005; Solís 2005, 2007; Zenteno 2003, Zenteno and Solís 2006, Parrado 2005, Serrano Espinosa and Torche ). Despite their use of different methodologies and datasets, these studies concluded that during the period of crisis and economic restructuring of the 1980s and the 1990s social fluidity decreased, as opportunities of upward mobility were increasingly determined by individuals' social origins (Cortés et al. 2007).

An important contribution of these studies is that they provide an overall picture of changes in inequality of opportunity during a period of accelerated social change. However, there are still many unsolved questions regarding the mechanisms contributing to the reproduction of social inequalities. In a certain way the situation is similar to that described two decades ago by Ganzeboom, Treiman and Ultee (1991) in relation to the field of comparative stratification research: by narrowing the scope of research to changes in social mobility (mainly class mobility) over time, more general questions on the determinants and consequences of social status have been overlooked. Two areas that require further research are, on one hand, the incorporation of a life course paradigm that takes into consideration possible variations in the effects of social background across different life stages and domains of the life-course and, on the other, a more detailed analysis of the specific weight that different markers of social background (e. g. social class, education or wealth of the family of origin) may have as determinants of specific outcomes.

My purpose in this paper is to advance in this direction by studying the effects of socioeconomic background on a the school-to-work transition. More specifically, my purpose is to look at the extent in which different dimensions of socioeconomic background (social class, educational resources, household wealth, and migratory origin) affect four outcomes of this transition: the age at school exit, the years of educational attainment, the age at first job, and the class of entry into the labor market. In doing so, I explore hypotheses about the determinants of inequality and propose summary measures of the overall levels of inequality of opportunity for each of these outcomes.

The study takes advantage of a retrospective survey on life-course trajectories and social mobility collected in Mexico City in 2009. The limited geographical scope of this

survey is compensated by greater depth in the collection of data on respondents' socioeconomic background as well as on their educational and educational outcomes. In this sense, even when results cannot be generalized to the country as a whole, this data set allows us to explore inequality of opportunity in the outcomes of the school-to-work transition in greater detail than with conventional cross-sectional surveys.

## **Theoretical background**

Social stratification is both a condition and a process. As a process, social stratification alludes to the mechanisms of allocation of individuals into stratified social positions. This process takes place across different stages of the life-course, but there is increasing consensus that many of the forces that produce social inequality operate fairly early in individuals' lives.

One of the crucial stages in the social stratification process is the period between the end of schooling and the attainment of full-time employment, typically referred as the “school-to-work transition”. This transition is important at least for two reasons. First, it is the earliest moment in individual lives when a direct link between educational attainment and occupational outcomes is established. Since education and labor markets play an important role in the stratification process, this initial matching may be definitive for further attainment and mobility prospects (Shavit and Müller 1998, Kerchoff 2000, Ryan 2001, OECD 1996). Second, given the condition of loose institutional affiliation that characterizes this transitional period, it may be expected that family background and social origins play a more important role in determining outcomes than later in the life-course, when individuals are fully integrated as adults into different institutional domains. It is for this same reason that it has been argued that this stage of the life-course has been the most affected by the increasing uncertainty in individual lives produced by structural change and globalization (Mills and Blossfeld 2005).

In this paper I particularly focus on four outcomes of the school-to-work transition: the exit from school, the entry into the labor force, the attained years of education, and the class of entry into the labor force. The first two outcomes are perhaps the most important events of this transition: the exit from school indicates the end of institutional affiliation into the educational system, whereas the age at labor force entry marks the beginning of occupational trajectories. Evidently these two events are interlocked in the sense that the occurrence of one of them often precipitates the occurrence of the other, so it is important to take this into consideration when analyzing them individually. Since in Mexico City these two events are practically universal<sup>1</sup>, what is most important is not

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1 In the subsample used in this study, almost all men had exited from school and had work experience by age 30; the exit from school was also practically universal among women, and 92% of them reported to have work experience.

whether individuals experienced them or not, but the variations in the ages at which they take place. The other two outcomes refer to the attainment dimension of the school-to-work transition. The attained years of education is an indicator of accumulation of human capital and credentials, whereas the class of entry reflects initial occupational attainment.

The departing question is: to what extent inequality of opportunity expresses itself through variations in these four outcomes? In trying to answer this question we must deal with different perspectives on the effects of social class, education, wealth and migratory origins in the intergenerational reproduction of inequality. In contemporary sociological studies of social stratification, social class represents the key dimension of inequality. However, there are different views of the concept of social class and therefore of its effects on the intergenerational transmission of inequality. Most sociologists define social class as a rather small set of discrete occupational groups differentiated not only by their labor market situation (relational property) but also by their uneven access to assets and social rewards (distributional property) (Bourdieu 1984, Erikson and Goldthorpe 2002, Featherman and Hauser 1987, Olin Wright 1985, Grusky 1994). The main disagreement is not whether these two components must be considered, but what is their relative importance (Olin Wright 2005, Hauser 2010).

The debate on the relational and distributional properties of class extends to the discussion about the ways in which social class affects life chances: is the social class of origin a determinant of stratification outcomes due to its relational or its distributional properties? This question can be formulated in this paper through different hypotheses about the mechanisms of association between social class and the outcomes of the school-to-work transition: a “distributional” effect of social class would imply a strong bivariate association that fades when differences in education and wealth are taken into consideration, a “relational” effect should persist even after these distributional differences are controlled.

The class approach coexists with two other explanations of the association between social background and social destinations, one based on education and the other on wealth. Although postulating different mechanisms, both cultural capital and human capital theories predict a strong association between available educational resources in the family and educational/occupational outcomes of the offspring (Bourdieu 1986, Coleman 1988, Becker and Tomes 1986). The availability of educational resources may have importance not only for its association to material resources and social capital, but also because it provides a family environment that aids learning and therefore is more favorable to educational attainment. On the same token, both sociological and economic studies have emphasized the importance of family wealth in educational and occupational attainment. The access to economic capital may provide resources to finance education,

delay the entry into the labor force, and even take advantage of business opportunities that foster early occupational attainment (Coleman 1988, Filmer and Pritchett 2001, Spilerman 2000). Thus, we can expect both educational resources and wealth to have effects on the outcomes of the school-to-work transition.

Finally, I also explore the effects of rural origins on the outcomes of the school-to-work transition. The pattern of economic integration of rural migrants was a common topic of sociodemographic research in Mexico in the decades of the 1960s and 1970s (Balán et al. 1973; Muñoz, Stern and Oliveira 1977, Roberts 1978). During that period, rural migrants confronted difficult socioeconomic circumstances upon their arrival to the city, but the high rates of economic growth and their effort in the self-creation of housing and work opportunities offered them real prospects of a successful economic assimilation and upward social mobility, to the extent that overall upward mobility rates were of a similar magnitude for city natives and migrants (Balán et al. 1973). This account of “successful” economic integration offers the impression that young rural migrants suffered few disadvantages during their educational and early occupational careers, or at least that they were able to overcome these disadvantages later in life.

During the 1980s and 1990s Mexico City was deeply affected by the debt crisis and economic restructuring. This period was characterized by a less dynamic labor market, the growth of the informal sector, greater competition for urban space, and a higher exposition to import competition for small- and large-scale producers. In this context, the urban environment might have become a more hostile one for the economic integration of rural migrants (Roberts 2004). The question is if these changes reflect in early educational and occupational disadvantages for rural migrants.

## **Data, methods and variables**

### *Data*

The data come from the “Encuesta sobre Desigualdad y Movilidad Social en la Ciudad de México”<sup>2</sup> (ENDESMOV). This survey was applied to 2,038 men and women between ages 30 and 60 living in Mexico City in 2009. The survey followed a life-history format with complete residential and occupational histories. It also included relevant retrospective information on the most significant educational and family transitions. Given that the main purpose was to obtain data on the intergenerational transmission of inequality, it included an extensive battery of questions on the socioeconomic characteristics of the respondent's family of origin, thus providing detailed socioeconomic background information that is not typically available in standard sociodemographic surveys. Since adult migrants to the city experienced their school-to-work transition in their

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2 Survey on Inequality and Social Mobility in Mexico City.

communities of origin and not in Mexico City, the subsample for this paper was restricted to the 1,725 respondents who were either city natives or migrated to Mexico City before age 15.<sup>3</sup>

### *Outcomes and Models*

The survey includes information on the age at school exit and the age of entry into the labor force. The age at school exit corresponds to the age at which the respondent stopped attending school for the last time. Since all interviewees were 30 years of age or older at the moment of the survey, it is reasonable to assume that this age corresponds to the definitive exit from school for the vast majority of them. The age at the first job was obtained from the occupational histories, which registered all jobs with a duration of three or more months held by the respondent during his/her life, regardless of whether these jobs were part-time or full-time. These two outcomes can be modeled with event-history analysis. I use discrete-time logistic regression models both because the dependent variables are measured in discrete units of time (years of age) and also because these models facilitate the introduction of time-varying independent covariates (Allison 1984).

The other two outcomes (attained years of education and class of entry into the labor force) are not time-dependent, or at least they are not in the sense in which I treat them here. In the case of years of education, a problem that arises when trying to apply ordinary least squares regression (OLS) is that this variable does not follow a normal distribution, but tends to concentrate in specific years that correspond to finished levels of education. For this reason, instead of OLS I use quantile regression, a method that does not rely on assumptions about the normality of the distribution of the response variable. The estimated coefficients in quantile regression can be interpreted almost like OLS coefficients, with the difference that the predicted value is not the mean of the response variable but a predefined percentile, in this case the median (Hao and Naiman 2007).

The class of entry into the labor force is defined as the class of the first job held by the respondent after finishing school or at age 30, whatever comes first. As in many other countries, the process of entry into the labor force in urban Mexico is often an irregular one, where individuals explore different part-time or temporary occupations while they finish their studies and “settle” in a full-time job (Mortimer and Johnson 1999, Kerchoff 2002, Balán, Browning and Jelin 1973). In this sense, the first job after finishing school represents a more reliable indicator of early occupational attainment than the first job ever held (Arum and Hout 1998).

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<sup>3</sup> For more detailed information on this survey and the research project see Solís (2010).

To identify the class of entry into the labor force (as well father's social class) I use a five-class scheme. At the top of this scheme is the “service class”, a category restricted to occupations characterized by a high concentration of authority and skills, and where labor relations are not as tightly regulated as with manual positions (e.g. managers, professionals, middle level supervisors in non-manual activities). The second category (“Routine non-manual”) includes a diversity of non-manual occupations (e.g. office employees, technicians, school professors) which are less skill-demanding and concentrate little or no authority, but nevertheless are less subject to supervision than working-class occupations. The third category includes the self-employed and small-scale employers in sales and manual activities, as well as sales employees. This group is integrated mostly by individuals working as small-scale salesmen and sales employees, activities characterized by lower incomes than other non-manual occupations but also qualitatively different than manual positions. The fourth group includes skilled manual occupations (e.g. foremen, machine operators, bus and taxi drivers, and craftsmen). Finally, the group of unskilled manual workers comprises the occupations with the lowest hierarchy: unskilled workers in manual activities (factory helpers, construction workers), unskilled service workers (domestic service workers, cleaning staff), and agricultural workers (farmers and agriculture laborers).

### *Socioeconomic Background Variables*

Socioeconomic background is measured through four variables:

- a) Father's social class. I measure social class of the family of origin using the occupation of the father (or the economic head of the household if the father was not the primary earner) when the respondent was age 15.
- b) Father's education. This variable measures the years of education attained by the respondent's father (or the economic head of the household at age 15). Even when this variable does not represent a full measure of the educational resources available at the household (for example, the educational levels of the mother and older siblings might also have an important role in enhancing educational prospects), it is a plausible proxy for family educational resources.
- c) Household Wealth Index (HWI). This index measures the availability of a series of assets and services in the household when the respondent was 15 years old. The index considers the availability to the following assets or services: blender, t.v. set, automobile or pickup, gas or electric stove, refrigerator, washer, record or dvd player, photographic camera, encyclopedia; roof built of cement, floor built of cement or tile, flush toilet inside the household, telephone service, and domestic service. The index was elaborated using the principal components analysis method. Since most of the variables are binary and not

continuous, the standard method of principal components analysis might underestimate the shared variance and produce biased factorial scores. Therefore, an alternative method suitable for categorical variables was applied (Kolenikov and Angeles 2005, 2009). The result was a unique factor solution that summarizes 71% of the variance, from which the factorial index was obtained. It has been demonstrated that summary assets indexes such as the one proposed here are plausible measures of relative household wealth (Filmer and Pritchett 2001, Rutstein and Johnson 2004, Córdova 2009).

d) Migratory Origin. To measure migratory origin I use the information on the municipality of birth of the respondent and Mexican census data on the size of the largest locality within that municipality at the census closest to the year of birth. Using this information, I define rural migrants as those who were born in municipalities under 10 thousand inhabitants.

As discussed in the previous section, these variables may reflect separate dimensions of socioeconomic background and therefore have independent effects on the outcomes of the school-to-work transition (I will explore in the following section whether this is the case or not). However, the four variables may also be conceived as correlated indicators of an underlying unique dimension of socioeconomic status of the family of origin. To explore whether this latter interpretation was viable, a second principal components analysis was performed, this time using only the four socioeconomic background variables.<sup>4</sup> The results of this analysis indicate that the four variables are highly correlated and that they can be summarized with a unique factorial score that “explains” 60% of the common variance. I will use this score (which I call “Socioeconomic Background Index” or SBI) to reduce dimensionality in regression analyses and obtain summary measures of inequality of opportunity.

### *Other control variables*

In all regression models I control for changes across birth cohorts, including a linear term that summarizes the variations in outcomes across three groups of cohorts: 1950-1963 (15-17 years of age before the crisis of the 1980s), 1964-1971 (15-17 years of age during the crisis of the 1980s), and 1972-1980 (15-17 years of age during the period of liberalization and open-market starting in 1987).

In the event history models for the exit from school and the entry into the labor force I introduce a “family status” time-dependent variable that indicates whether the respondent had ever been married or had already become a parent at each person year. This variable is included to test the role of family transitions as intervening events that

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<sup>4</sup> Since migratory status and father's social class are binary/ordinal variables, I used again a modified principal components analysis suited for a mix of discrete and continuous variables.



mediate in the association between social background and school-to-work outcomes. Finally, I control for the bidirectional association between school exit and labor force entry by including a time-dependent variable for one of the events when the other event is the dependent variable.

## Results

### *Overall values, cohort trends and bivariate associations*

Tables 1 and 2 present cohort trends in the four school-to-work transition outcomes, as well as the bivariate associations with the socioeconomic background variables. Looking first at the overall educational attainment levels, the median years of education are 11.0 years for males and 9.6 years for females, a gender gap of approximately 1.5 years in educational attainment. Average educational levels show a moderate increase in younger cohorts. However, most of this increase has taken place at the elementary and secondary educational levels, while the access to higher education stalled during the crisis of the 1980s and only showed some signs of recovery until the end of the 1990s, when most of the members of the cohorts under study had already exited from school.<sup>5</sup>

As years of education increase, we could expect a proportional increase in the age at leaving school. Interestingly, however, the median age at this transition only changes significantly among men (from 18.1 to 19.3 years). In the case of women, the median age remains stable in around 17.5 years. It is also worth noticing that the estimated median age at leaving school exceeds in all cases the values that could be expected given the median attained years of education and an uninterrupted progression in the educational system. For example, assuming that the age of entry into school is 6.5 years, an uninterrupted school progression would imply that the median age at leaving school for men should be 17.5 years (6.5 years + 11.0 years of education), but the estimated value is 1.2 years higher (18.7 years). The table shows that this gap widens as the average educational attainment levels increase.

This discrepancy can be explained if we take into consideration all sort of factors that produce delays and temporary interruptions in grade progression, both endogenous to the educational system (i. e. repeating a grade) or exogenous (external factors such as the interference of family events or work in educational trajectories). As individuals advance in their educational trajectories, these delays tend to accumulate and therefore the gap between years of attainment and age at leaving school widens. Moreover, public universities (which cover most of the demand of middle-high (“preparatoria”) and college

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<sup>5</sup> This “bottleneck” in the access to higher education is reflected in the proportion of respondents with at least one approved year of university studies, which only increased from 22.5% to 25.2% between the oldest and younger birth cohorts.

education in Mexico City) are very flexible regarding their rules of enrollment and grade progression, to such an extent that individuals may spend several years “enrolled” but not making many advances in their coursework. In other words, it takes respondents more years than what could be normatively expected to complete their education, and that gap between normative and observed durations of schooling grows when educational attainment increases.

The median age at the first job is estimated in 17.5 years for males and 18.3 years for females. The small difference might be somewhat surprising, given that work participation rates in Mexico City are much lower for females than for males. However, a detailed analysis of occupational trajectories reveals that, for the whole country but even more for Mexico City, the main factor explaining the gender gap in work participation is not a significantly lower number of women ever entering the labor force or a radical difference in the age at first entry, but the high proportion of women withdrawing from work at later ages, frequently after marriage or having children (Ariza and Oliveira 2005, Triano 2010).

Only a small fraction of respondents started in the “service class” (11.8% of males and 7.2% of females). The opportunities of entering into a routine non-manual position are higher, particularly among women (36.7%), who present a tendency to concentrate in lower-level non manual occupations such as office assistants, nurses, and elementary school teachers due in part to occupational segregation by gender (Macedo Martínez 2003, Solís y Cortés 2009). The proportion starting as self-employed and sales workers is very similar for males and females (15.0% and 17.2%, respectively). Close to half of men and 39% of females started in manual positions, more than half of them in unskilled occupations. Finally, there are little changes across cohorts in these distributions. The only category that shows some increase is the self-employed and sales employees, which gains importance mainly in expense of manual occupations.<sup>6</sup> Overall, these figures suggest that during the years of crisis, restructuring and consolidation of market reforms, the destruction of occupational opportunities for young manual workers was not compensated by the creation of service class or routine non-manual positions, thus giving way to the expansion of informal activities that offered little or no chances of upward social mobility.

Turning now to the effects of socioeconomic background, the bivariate associations suggest that social class is strongly related to all outcomes. The median age at school exit decreases from 23.6 years for males with service class origins to 16.8 years for the children of unskilled manual workers (23.0 to 15.8 years for females). The respective gap

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<sup>6</sup> This change reflects the increasing importance of the informal sector in the labor market during the crisis and economic restructuring period. For a detailed analysis of labor market trends in Mexico City, see Pacheco 2004.

in years of education is 5.3 years. The gap in the ages at the first job is not as wide, but it is also important (2.9 years for males and 2.2 for females). Finally, the chances of entering into higher level occupations significantly increase for those coming from higher classes. For instance, three of every four women with service class origins started in non-manual positions, versus only one in every four for those with unskilled manual background.

These results provide initial support for the hypothesis of social class as a key source of differentiation in the school-to-work transition. However, it is not immediately evident from these bivariate associations whether the effects of class are primarily produced by its correlation with other dimensions of stratification (such as education or household wealth) or extend beyond it, that is, if the observed associations can be traced to either the “distributional” or the “relational” properties of social class. The pertinence of this question becomes obvious when we consider that father's education and household wealth also have associations of similar or even larger magnitude with the school-to-work outcomes. I will later return to this problem, when the effects of the individual socioeconomic background variables are tested in multiple regression models.

Finally, rural origins are also associated to less favorable outcomes. The effects seem to be stronger for females, thus suggesting that the conditions for their socioeconomic assimilation are more disadvantageous than for males. The gaps are particularly evident in the class of entry into the labor force: 66.4% of females with rural origins entered in unskilled non manual positions and only 1.8% attained service class jobs (the respective percentages are 24.4% and 7.5% for natives and urban migrants).

### *Models for leaving school*

Tables 3 and 4 present the results of the discrete time logistic regression models for leaving school. Model 1 may be considered as a “baseline” model that includes only a set of dummy variables for age, a linear birth cohort term, and the interactions among these two variables (which account for the overall cohort changes in the age pattern of this event). This model shows a trend of reduction in the probability of leaving school at younger ages (the main cohort effect is significant and negative with an odds ratio of 0.60 for males and 0.71 for females). The reduction is compensated by higher probabilities of exit at later ages (positive and statistically significant odds ratios for the interactions between the dummy age variables and the birth cohort).

Model 2 includes the four socioeconomic background variables.<sup>7</sup> After controlling for the other variables, the coefficients for social class become not statistically significant. For males, only father's education (OR=0.96) and the Household Wealth Index (OR=0.66)

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<sup>7</sup> To facilitate comparisons of effect sizes, in this and subsequent models the reported odds ratios (or coefficients) for the continuous variables (father's education, HWI and SOI) are standardized.

have statistically significant effects. For females these two variables are also significant with effects of a similar magnitude (OR=0.96 and 0.69, respectively), but migratory status also retains its effect: the estimated odds of leaving school at any given age are 69% higher for rural migrants than for natives and urban migrants.

In more substantive terms, these results indicate that the age at leaving school is strongly associated with wealth and moderately associated with educational resources. On the other hand, the null adjusted effects of social class suggest that the impact of class on school continuity is primarily produced by its association with educational resources and wealth, thus supporting a “distributional” rather than a “relational” explanation of class effects. Finally, when it comes to migratory status the results are different for males and females. In the case of males, the absence of effects suggests that the obstacles for school continuity among rural migrants are primarily associated to their disadvantages in other socioeconomic background variables. In contrast, for females there seems to be an independent negative effect of rural origins.

Model 3 introduces the SBI, which, as described in the methodological section, is a summary variable that reflects the conjoint variation of the four socioeconomic background variables. This model can be interpreted as a simplified version of model 2, with reduced dimensionality but nevertheless an equivalent goodness of fit (the McFadden  $r^2$  values remain practically unchanged at 0.14 and 0.12 for males and females, respectively). The estimated odds ratios associated to the SBI index are 0.70 and 0.64 for males and females, respectively.

The reduction of dimensionality facilitates the introduction of models with more complex interactions, such as Model 4, in which a series of interaction terms are introduced to account for the age-specific effects of socioeconomic background. The results suggest that the association between socioeconomic background and the risk of leaving school is heavily dependent on age: the strongest effect takes place at the youngest ages (6 to 13), when the estimated odds of leaving school decrease in 64% for males and 56% for females per change of one standard deviation in the SOI. At subsequent ages this gap gradually decreases until reverting after age 22. This pattern is entirely consistent with Mare's selectivity hypothesis, which predicts a declining impact of socioeconomic status variables on school continuity at later ages (Mare 1981).

Finally, Model 5 includes “family status” and “labor force experience” as dummy time-dependent covariates. The two variables have statistically significant effects on the chances of leaving school (although for males family status is significant at the weaker level of  $p < 0.1$ ). The odds of leaving school after marrying or becoming a parent are 34% and 58% higher for males and females, respectively. Odds also increase in 47% and 44%, respectively, for males and females who already entered the labor force. Clearly,

experiencing any of these transitions while still studying significantly increases the risk of leaving school. However, controlling for these two variables does not produce any important changes in the SOI coefficients. This suggests that in Mexico City the effects of social background on school continuity rates are not mediated in a significant way by an early onset of marriage, childbearing or work.

### *Models for years of education*

The quantile regression models for attained years of education are presented in Table 5. Since this is a “static” rather than a time-to-event model, the set of models is reduced to three equations. However, the emerging picture is very similar to the one depicted in the previous models. Model 1 includes only includes the lineal effect for birth cohort and the four socioeconomic background variables. After controlling for the other social background variables, social class has no significant effects. Father's education and HWI are both statistically significant. An increase of one standard deviation in father's education is estimated to generate a gain of 1.14 years of education for males and 1.05 years for females. The estimated effects for HWI are larger in size (1.93 and 1.55 years, respectively). Even after controlling for class origins, father's education and household wealth, women with rural origins have an estimated disadvantage of 1.32 years of education.

As in the models for leaving school, these results provide support for a “distributional” rather than a “relational” version of class effects; they also suggest that both household wealth and educational resources have independent effects on school-to-work outcomes; finally, once again there is an independent negative effect of rural origins for females.

Model 2 includes the Socioeconomic Background Index as a unique variable. The coefficients estimate and increase of 2.01 years of education for males and 1.86 years for females per one standard deviation change in this index. The reduction of dimensionality has a moderate impact in the goodness of fit: the pseudo R squares decrease from 0.22 to 0.19 for males and from 0.22 to 0.20 for females. However, the SBI index is still a plausible summary variable for the effects of the four socioeconomic background variables.

### *Models for labor force entry*

Tables 6 and 7 present the discrete time logistic regression models for the entry into the labor force. The specification of these models is almost identical to that of tables 3 and 4, with the exception of the time-varying covariate “Out from school”, which replaces “labor force experience” (now the dependent variable). Model 1 specifies the age-pattern of entry

into the labor force and its variations by birth cohort. There are no significant cohort trends for males. For females, there is a reduction over time in the odds of entering work before age 12 (OR=0.69). This reduction is compensated by an increase in odds at later ages. This pattern reflects a cohort trend among females both toward decreasing chances of entering work at very early ages and increasing labor force incorporation.

When the socioeconomic background variables are included (Model 2), only the Household Wealth Index has significant effects among men, with an odds ratio of 0.78.<sup>8</sup> Evidently, social background is not as closely related to this transition, a finding that could be expected given the weaker bivariate associations observed in Tables 1 and 2. However, models 3 and 4 show that, when the effects of the four socioeconomic background variables are summarized in the SBI index, social origins have a significant effect, although still of lower magnitude than in the case of the models for leaving school. Even so, the coefficients of model 4 suggest that, both for males and females, the entry into the labor force takes place at later ages among those with a more advantaged socioeconomic background.

Finally, Model 5 shows that exiting from school and experiencing a family transition have strong and significant effects on the chances of entering work. Leaving school multiplies in 4.29 times the odds of entry among men. The effect is also important for women, although of a lower magnitude (OR=2.32). The transition to marriage or parenthood is also related to the chances of experiencing the transition to work. However, the effects have an opposite direction for males and females. In the case of males, the odds of entry increase after a family transition (OR=1.71). For females the odds are strongly reduced (OR=0.33). The opposite signs of this coefficient point to the different meaning of family transitions for males and females in a society where the roles of breadwinner and family carer are still highly divided across gender lines.

#### *Models for the class of entry into the labor force*

Tables 8 and 9 present the results of a series of multinomial logistic regression models for the class of entry into the labor force. One difficulty of interpreting these results is that many outcomes and contrasts need to be considered simultaneously, and the significance of specific coefficients depends on the selection of specific baseline and reference categories. Thus, to simplify the interpretation, I estimated marginal changes in probabilities for each outcome category and each independent variable, holding the other variables constant at their mean value (Table 10)

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<sup>8</sup> Even when in general the effects of social class are not statistically significant, the sons of the self-employed and sales workers are the exception. The positive odds ratio (1.37) suggests an early age of entry in this class.

This marginal effects indicate once again that, after controlling for the other socioeconomic background variables, the effects of social class on the chances of entering all classes are reduced, becoming not statistically significant in most cases. The exception is the outcome of routine non-manual workers among males, where there is a sign of lower chances of entry for children of the self-employed and unskilled manual workers (the estimated probability of entry is reduced in -0.13 and -0.16 in relation to the service class). The effects of father's education are also considerably weaker and restricted to specific outcomes. In contrast, the associations with household wealth are of larger magnitude and more consistent across categories. In the case of males, for example, a change of one standard deviation in the HWI increases the probability of entering into the service class in 0.07, and decreases the probability of entering into unskilled manual positions in 0.09. As in the first two outcomes, the effects of migratory status are only significant for women: even after controlling for other socioeconomic background variables, the chances of entering into an unskilled manual position are much higher for women with rural origins.

The marginal changes for the SBI index in model 2 point to the expected direction: as the value of the index increase so do the estimated chances of entry into the service class and routine non-manual positions, while the probabilities of entering into skilled and unskilled manual positions decrease.

Finally, in Model 4 the effects of socioeconomic background are adjusted by educational attainment. A classical question in status attainment research is how much of the effect of socioeconomic background on occupational attainment is direct and how much is indirect through educational attainment (Blau and Duncan, Ganzeboom and Treiman 2007). By contrasting these results with Model 3 it is possible to have an indirect answer to this question at least regarding early occupational attainment. The results show that: a) in general, the marginal effects of years of education are statistically significant and larger in magnitude than the effects of the SBI; b) the marginal effects of the SBI index are reduced in relation to model 3; and c) in the case of males, the only significant effects of SBI are in routine non-manual positions and manual positions, whereas for females all marginal effects are significant, with the exception of that corresponding to the service class. In sum, these results suggest that a large fraction of the effects of socioeconomic background are indirect through education, although some direct effects persist, particularly in the case of women.

### *Summary Measures of Inequality of Opportunity*

So far I have focused on the analysis of the effects of different individual socioeconomic background variables on the outcomes of the school-to-work transition. However, given the different specifications of the regression models and their multidimensional nature, it

is difficult to obtain overall descriptive measures of inequality of opportunity, that is, measures of the conjoint effect of socioeconomic background variables on the different outcomes.

In this final section I use the Socioeconomic Background Index for such purpose. As shown in the regression models, the SBI provides plausible summary measures of the effects of socioeconomic background on the four outcomes. By estimating conventional measures of inequality in the outcomes conditional on the values of the SBI it is possible to obtain estimations of the overall magnitude of inequality of opportunity (Barros et al. 2008).<sup>9</sup>

Table 11 presents the results of an exercise that calculates these measures of inequality for the four outcomes of the school-to-work transition. The observed Gini indexes for the age at leaving school and attained years of education fluctuate between 0.182 and 0.214; the Gini indexes by deciles of SBI vary between 0.087 to 0.134. The ratios between these two measures vary between 45.5% ad 60.4%, suggesting that the unequal access to opportunities associated to socioeconomic background produces about half of the total observed differences in these two outcomes.

As the regression models suggest, the effects of socioeconomic background on the age of entry into work are of a lower magnitude. The overall observed Gini indexes are 0.145 for males and 0.214 for females. The SBI Gini indexes are 0.033 and 0.036, respectively. The ratios between these two values suggest that only 22.7% and 16.9% of the heterogeneity in the age of entry into the labor force is associated to inequality of opportunity.

The values of the dissimilarity index for the different classes of entry cannot be directly compared with the Gini index, but provide compelling direct measures of

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9 In the case of the first three outcomes (age at school exit, years of education, and age at first job), the following procedure was follow to calculate a Gini index of inequality of opportunity: 1) the median value of the outcome is estimated for each decile of the SBI; 2) the value of the outcome for each individual observation is replaced by the corresponding conditional median value, thus removing all sources of variability exogenous to the SBI; 3) a conventional Gini index is estimated for these conditional median values. Since this Gini index only reflects the variability in outcomes associated to changes in the SBI, it can be interpreted as a summary measure of inequality of opportunity. Moreover, if we compare this index with an overall Gini index of the observed values of the outcome, we can obtain an approximate relative measure of the magnitude of inequality of opportunity. The aforementioned method is appropriate for continuous outcomes, but not for discrete outcomes, such as the class of the first job. In this case it has been suggested that a better measure of inequality of opportunity is a dissimilarity index of the observed proportions of the outcome  $j$  across categories of the socioeconomic background variables versus a counterfactual distribution with equal (average) proportions of the outcome (Barros et al 2008, Soloaga and Wendelpieps 2010). The resulting dissimilarity index can be interpreted as the proportion of opportunities that would need to be reallocated to achieve an equal distributon of opportunities across categories of the socioeconomic background variables.



inequality of opportunity in early occupational attainment. For both males and females, inequality of opportunity is higher in the access to the “service class”, with dissimilarity indexes of 0.25 and 0.40, respectively. For males, the second most unevenly distributed category is routine non-manual workers, with an index of 0.21. Among females, inequalities are higher in the access to manual positions, both skilled (0.23) and unskilled (0.21).

## **Final remarks**

In this paper I explored the effects of socioeconomic background on four outcomes of the school-to-work transition: the age at school exit, the years of educational attainment, the age at the first job, and the social class of entry into the labor force. Using as a departure point the classical distinction between inequality of condition and inequality of opportunity, I analyzed to what extent inequality of condition in the family of origin (expressed in differences in father's social class, father's education, household wealth, and migratory origins) translates into inequality of opportunity in these four outcomes. For that purpose, I estimated multiple regression models and summary measures of inequality of opportunity.

The summary measures of inequality presented in the previous section help to provide an idea of the magnitude of inequality of opportunity. The series of Gini indexes for the age at school exit, years of education, and the age at labor force entry suggest that as much as 50% or more of the overall inequality in these outcomes might be attributed to socioeconomic background. The dissimilarity indexes of the class of entry into the labor force also suggest that the opportunities of entry into different occupations are closely related to social origins.

These results suggest that in Mexico City the transition period between the end of school and the beginning of work is one of increasing diversification of individual life-courses, and that this diversification is strongly associated with socioeconomic background. In this sense, the school-to-work transition appears to be a crucial stage for the intergenerational transmission of inequality. Certainly, the effects of socioeconomic background might be traced back to previous stages of the life-course and also may perdure later in life, but there is hardly a life stage that comprises in such a short period of time so many outcomes that have important consequences in the process of social stratification.

A summary of the effects of the different dimensions of socioeconomic background is presented in Table 12. The observed unadjusted associations are very similar across three of the four outcomes, with the exception of the at the first job, which presents weaker associations. For males, class origins, father's education and household wealth

have strong or moderate bivariate associations with these three outcomes. The bivariate effects of migratory status are not as strong, but still of considerable magnitude. In the case of women the bivariate associations show a similar pattern, with the exception of migratory status, which has associations of higher magnitude both with the age of entry into work and the class of entry.

Once these variables were simultaneously tested in regression models, the associations between the social class of origin and all the outcomes practically disappears.<sup>10</sup> These results provide insights into the mechanisms through which social class affects educational and educational outcomes in the school-to-work transition. It seems that, at least in Mexico City, the effects of the social class of origin are mainly “distributional”, that is, the differences in outcomes are explained almost entirely by the unequal access that respondents of different classes had to educational resources and wealth. In other words, even when our definition of social class included both relational and distributional properties, the explanatory power of the relational dimension of class was simply absent once its distributional properties were controlled.

The adjusted effects of father's education and household wealth remained statistically significant for most of the outcomes. However, the intensity of the association was considerably higher in the case of household wealth. Thus, the availability of “human” or “cultural” capital in the family of origin seems to enhance to some extent the opportunities of attaining favorable educational and early occupational outcomes, but this influence is secondary when compared to the access to more elementary material resources.

Turning now to the role of migratory origins, even when there was a bivariate association for both sexes, after controlling for the other socioeconomic background variables this relationship only prevailed among women. These results indicate that the disadvantages in educational and early occupational outcomes for female rural migrants are not only due to their “deficit” against natives in other markers of socioeconomic background, but also to other factors that cannot be fully identified in our empirical analysis. A possible explanation is that in the families of young rural migrants there are gender-based differences in expectations that tend to provide a more unfavorable environment for the educational and occupational attainment of females. This effect may have been reinforced by the patterns of labor market participation of female rural migrants, which has been characterized by a segmented incorporation into unskilled manual activities such as domestic service (Oliveira 1984, Szasz). More research is needed to provide empirical support for these or other possible hypotheses.

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<sup>10</sup> There are indications of significant class effects for the entry into specific occupations, but they are scattered and weak.

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**Table 1. Outcomes of the School-to-Work Transition by Socioeconomic Background, Males between 30 and 60 years of age, 2009**

	Median age at leaving school	Median years of education	Median age at first job	Class of entry into the labor force				
				Service Class	Routine non-manual	Self-employed and sales workers	Skilled Manual workers	Unskilled manual workers
<b>Birth Cohort</b>								
1950-1963	18.1	9.8	17.1	11.2	24.7	12.1	18.5	33.6
1964-1971	18.4	10.7	17.4	10.2	24.4	15.5	21.8	28.0
1972-1981	19.3	11.5	17.9	13.9	23.8	17.6	16.4	28.3
<b>Father's Social Class</b>								
Service class	23.6	14.8	19.7	21.2	49.3	7.7	7.7	14.1
Routine non-manual	21.6	12.6	18.3	12.8	42.6	17.3	10.7	16.6
Self-employed and sales workers	17.9	10.4	17.4	11.7	19.8	20.0	20.0	28.6
Skilled manual workers	18.8	10.3	17.4	11.9	22.8	9.9	22.0	33.4
Unskilled manual workers	16.8	9.4	16.8	9.1	14.6	15.1	21.6	39.6
<b>Father's Education</b>								
Lowest tertile	16.1	8.9	16.8	7.2	13.9	18.7	22.0	38.2
Middle tertile	19.0	11.3	17.7	11.5	25.2	16.1	17.5	29.6
Highest tertile	23.0	13.7	18.0	19.3	38.3	9.5	16.2	16.8
<b>Household Wealth Index (HWI)</b>								
Lowest tertile	15.5	8.5	16.2	4.5	8.8	18.2	23.1	45.5
Middle tertile	19.2	11.4	17.7	10.2	26.7	15.4	21.6	26.2
Highest tertile	23.0	14.3	18.3	20.6	37.5	11.4	11.8	18.7
<b>Migratory Origin</b>								
Natives and urban migrants	18.8	11.1	17.5	12.0	24.5	14.8	18.8	29.9
Rural migrants	16.3	8.5	16.5	7.7	19.8	18.9	19.8	33.9
<b>Socioeconomic Background Index (SBI)</b>								
Lowest tertile	15.6	8.7	16.3	4.6	10.9	18.3	23.9	42.5
Middle tertile	19.1	11.2	17.4	12.5	25.0	15.7	17.4	29.4
Highest tertile	22.9	14.1	18.5	19.2	37.4	12.2	14.9	16.3
<b>Total</b>	<b>18.7</b>	<b>11.0</b>	<b>17.5</b>	<b>11.8</b>	<b>24.3</b>	<b>15.0</b>	<b>18.8</b>	<b>30.1</b>

Source: Own calculations based on ENDESMOV 2009 data

**Table 2. Outcomes of the School-to-Work Transition by Socioeconomic Background, Females between 30 and 60 years of age, 2009**

	Median age at School Exit	Median years of education	Median age at first job	Class of entry into the labor force				
				Service Class	Routine non-manual	Self-employed and sales workers	Skilled Manual workers	Unskilled manual workers
<b>Birth Cohort</b>								
1950-1963	17.2	9.0	18.3	6.1	38.5	14.1	12.2	29.1
1964-1971	17.5	9.7	18.4	6.9	35.6	17.1	12.0	28.3
1972-1981	17.4	10.1	18.2	8.6	35.6	20.7	12.5	22.6
<b>Father's Social Class</b>								
Service class	23.0	13.7	19.8	8.8	68.6	15.3	1.3	6.0
Routine non-manual	20.3	12.4	19.7	13.5	60.2	17.1	4.2	5.0
Self-employed and sales workers	17.0	9.5	18.0	6.2	33.6	22.2	7.2	30.8
Skilled manual workers	17.5	10.1	18.5	12.1	37.9	12.0	17.0	21.0
Unskilled manual workers	15.8	8.4	17.6	0.7	26.2	16.9	17.5	38.8
<b>Father's Education</b>								
Lowest tertile	15.4	8.3	17.1	2.1	21.2	15.7	21.0	40.0
Middle tertile	17.3	9.8	18.5	7.3	40.8	18.3	9.0	24.7
Highest tertile	21.2	12.4	19.3	14.0	50.6	16.5	7.0	11.9
<b>Household Wealth Index</b>								
Lowest tertile	14.6	6.9	17.2	1.0	16.5	17.3	20.7	44.5
Middle tertile	17.3	9.7	18.3	6.4	41.9	19.0	10.2	22.6
Highest tertile	21.1	12.4	18.8	13.9	50.6	15.3	6.3	13.9
<b>Migratory Origin</b>								
Natives and urban migrants	17.5	9.8	18.4	7.5	38.0	17.8	12.3	24.4
Rural migrants	13.6	5.9	15.4	1.8	13.6	6.0	12.2	66.4
<b>Socioeconomic Background Index (SBI)</b>								
Lowest tertile	14.7	7.6	16.7	0.7	16.8	15.8	22.4	44.4
Middle tertile	17.2	9.7	18.6	6.0	38.3	18.9	12.0	24.8
Highest tertile	21.2	12.5	19.0	14.3	54.9	16.1	3.5	11.2
<b>Total</b>	17.4	9.6	18.3	7.2	36.7	17.2	12.3	26.7

Source: Own calculations based on ENDESMOV 2009 data



**Table 3. Odds Ratios from Discrete-time Logistic Models for Out from School Transition. Males**

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Age</b>					
6-13 (ref.)	-----	-----	-----	-----	-----
14-17	3.45***	4.02***	3.86***	5.93***	5.25***
18-21	1.46	1.88*	1.78	2.93***	2.16*
22-25	4.49***	5.96***	5.44***	6.98***	4.61***
26-30	4.00***	5.29***	4.60***	6.61***	3.77***
<b>Birth Cohort</b>	0.60***	0.60***	0.65***	0.73**	0.73**
<b>Age * Birth Cohort</b>					
14-17 * Birth Cohort	1.52***	1.51***	1.50***	1.41**	1.43**
18-21 * Birth Cohort	2.34***	2.37***	2.33***	2.10***	2.14***
22-25 * Birth Cohort	1.82***	1.86***	1.84***	1.42**	1.45**
26-30 * Birth Cohort	2.03***	2.02***	2.04***	1.61**	1.68**
<b>Father's Social Class</b>					
Higher Service Class (ref.)		-----			
Lower Service Class		0.88			
Self-Employed and Sales		0.92			
Skilled Manual		0.81			
Unskilled Manual		0.79			
<b>Father's Education</b>		0.96***			
<b>Household Wealth Index (HWI)</b>		0.66***			
<b>Migratory Status</b>					
Natives and Urban Migrants (ref.)		-----			
Rural Migrants		1.34			
<b>Socioeconomic Background Index (SBI)</b>			0.70***	0.36***	0.36***
<b>Age * SOI</b>					
14-17 * SOI				1.42***	1.43***
18-21 * SOI				1.81***	1.84***
22-25 * SOI				3.45***	3.50***
26-30 * SOI				3.27***	3.31***
<b>Family Status (time-varying)</b>					1.34*
<b>Labor force experience (time-varying)</b>					1.47***
McFadden's Pseudo R square	0.12	0.14	0.14	0.16	0.17
Person-years	11575	11575	11575	11575	11575
Individuals	818	818	818	818	818

\* p < 0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Own calculations based on ENDESMOV 2009 data

**Table 4. Odds Ratios from Discrete-time Logistic Models for Out from School Transition. Females**

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Age</b>					
6-13 (ref.)	-----	-----	-----	-----	-----
14-17	2.30***	2.84***	2.77***	3.70***	3.40***
18-21	3.91***	5.59***	5.50***	7.88***	5.78***
22-25	1.8	2.47**	2.51**	3.01***	2.01
26-30	3.42***	3.98***	4.04***	5.99***	3.26**
<b>Birth Cohort</b>	0.71***	0.74***	0.79**	0.87	0.87
<b>Age * Birth Cohort</b>					
14-17 * Birth Cohort	1.58***	1.57***	1.55***	1.47***	1.47***
18-21 * Birth Cohort	1.41**	1.42**	1.39**	1.26	1.26
22-25 * Birth Cohort	2.07***	2.16***	2.09***	1.65***	1.63**
26-30 * Birth Cohort	1.33	1.48	1.44	1.03	1.03
<b>Father's Social Class</b>					
Higher Service Class (ref.)		-----			
Lower Service Class		0.76			
Self-Employed and Sales		0.82			
Skilled Manual		0.91			
Unskilled Manual		1.05			
<b>Father's Education</b>		0.96***			
<b>Household Wealth Index (HWI)</b>		0.69***			
<b>Migratory Status</b>					
Natives and Urban Migrants (ref.)		-----			
Rural Migrants		1.69***			
<b>Socioeconomic Background Index (SBI)</b>			0.64***	0.44***	0.44***
<b>Age * SOI</b>					
14-17 * SOI				1.22**	1.24**
18-21 * SOI				1.50***	1.54***
22-25 * SOI				2.60***	2.62***
26-30 * SOI				2.62***	2.63***
<b>Family Status (time-varying)</b>					1.58***
<b>Labor force experience (time-varying)</b>					1.44***
McFadden's Pseudo R square	0.10	0.13	0.12	0.14	0.14
Person-years	10253	10253	10253	10253	10253
Individuals	802	802	802	802	802

\* p < 0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Own calculations based on ENDESMOV 2009 data

**Table 5. Coefficients from Quantile Regression Models for Median Years of Education**

	Males		Females	
	Model 1	Model 2	Model 1	Model 2
<b>Birth Cohort</b>	0.53***	-0.02	0.49***	0.11
<b>Father's Social Class</b>				
Higher Service Class (ref.)	-----		-----	
Lower Service Class	1.13		0.74	
Self-Employed and Sales	0.76		-0.15	
Skilled Manual	0.27		-0.04	
Unskilled Manual	0.97		-0.47	
<b>Father's Education</b>	1.14***		1.05***	
<b>Household Wealth Index (HWI)</b>	1.93***		1.55***	
<b>Migratory Status</b>				
Natives and Urban Migrants (ref.)	-----		-----	
Rural Migrants	-0.35		-1.32***	
<b>Socioeconomic Background Index (SBI)</b>		1.86***		2.01***
<b>Constant</b>	9.01***	10.19***	9.30***	9.43***
Pseudo R square	0.22	0.19	0.22	0.20
Cases	823	823	827	827

\* p < 0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Own calculations based on ENDESMOV 2009 data



**Table 6. Odds Ratios from Discrete-time Logistic Models for Entering the Labor Force. Males**

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Age</b>					
6-13 (ref.)	-----	-----	-----	-----	-----
14-17	9.77***	10.21***	9.95***	10.04***	5.63***
18-21	14.49***	16.41***	15.61***	15.27***	8.57***
22-25	12.43***	14.08***	13.63***	11.85***	5.22***
26-30	16.84***	16.52***	17.46***	15.59***	3.28**
<b>Birth Cohort</b>	0.95	0.94	0.99	1.00	1.03
<b>Age * Birth Cohort</b>					
14-17 * Birth Cohort	0.81	0.81	0.82	0.81	0.87
18-21 * Birth Cohort	1.13	1.12	1.13	1.13	1.09
22-25 * Birth Cohort	1.04	1.03	1.03	1.05	1.06
26-30 * Birth Cohort	1.04	1.07	1.03	1.04	1.17
<b>Father's Social Class</b>					
Higher Service Class (ref.)		-----			
Lower Service Class		1.06			
Self-Employed and Sales		1.37*			
Skilled Manual		1.30			
Unskilled Manual		1.32			
<b>Father's Education</b>		1.01			
<b>Household Wealth Index (HWI)</b>		0.78***			
<b>Migratory Status</b>					
Natives and Urban Migrants (ref.)		-----			
Rural Migrants		0.98			
<b>Socioeconomic Background Index (SBI)</b>			0.84***	0.77***	0.83**
<b>Age * SOI</b>					
14-17 * SOI				0.87	1.01
18-21 * SOI				1.22	1.43***
22-25 * SOI				1.52***	1.51**
26-30 * SOI				1.96***	1.67***
<b>Family Status (time-varying)</b>					1.71**
<b>Out from school (time-varying)</b>					4.29***
McFadden's Pseudo R square	0.16	0.17	0.17	0.18	0.22
Person-years	10167	10167	10167	10167	10167
Individuals	819	819	819	819	819

\* p < 0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Own calculations based on ENDESMOV 2009 data

**Table 7. Odds Ratios from Discrete-time Logistic Models for Entering the Labor Force. Females**

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Age</b>					
6-13 (ref.)	-----	-----	-----	-----	-----
14-17	3.52***	3.63***	3.61***	4.65***	3.64***
18-21	6.56***	6.73***	6.72***	9.15***	8.68***
22-25	3.12***	3.08***	3.12***	4.30***	6.02***
26-30	2.13*	2.06	2.08	3.14**	4.38***
<b>Birth Cohort</b>	0.69**	0.70**	0.71**	0.82	0.83
<b>Age * Birth Cohort</b>					
14-17 * Birth Cohort	1.53**	1.52**	1.52**	1.49**	1.50**
18-21 * Birth Cohort	1.72***	1.73***	1.72***	1.67***	1.58***
22-25 * Birth Cohort	1.87***	1.91***	1.89***	1.78***	1.53**
26-30 * Birth Cohort	1.74**	1.78**	1.76**	1.63**	1.54*
<b>Father's Social Class</b>					
Higher Service Class (ref.)		-----			
Lower Service Class		0.84			
Self-Employed and Sales		1.09			
Skilled Manual		0.93			
Unskilled Manual		1.08			
<b>Father's Education</b>		0.99			
<b>Household Wealth Index (HWI)</b>		0.95			
<b>Migratory Status</b>					
Natives and Urban Migrants (ref.)		-----			
Rural Migrants		1.21			
<b>Socioeconomic Background Index (SBI)</b>			0.89***	0.54***	0.57***
<b>Age * SOI</b>					
14-17 * SOI				1.38**	1.48***
18-21 * SOI				2.14***	2.11***
22-25 * SOI				2.84***	2.61***
26-30 * SOI				2.81***	2.59***
<b>Family Status (time-varying)</b>					0.33***
<b>Out from school (time-varying)</b>					2.32***
McFadden's Pseudo R square	0.13	0.14	0.14	0.15	0.17
Person-years	12042	12042	12042	12042	12042
Individuals	826	826	826	826	826

\* p < 0.1, \*\* p<0.05, \*\*\* p<0.01

Source: Own calculations based on ENDESMOV 2009 data

**Table 8. Odds Ratios from Multinomial Logistic Models for the Class of Entry into the Labor Force. Males /1**

	<b>Class of entry into the labor force /2</b>			
	RNM	SES	SM	UM
<b>Model 1</b> (Pseudo R2= 0.08, n=817)				
<b>Birth Cohort</b>	1.28	1.05	1.31*	1.01
<b>Father's Social Class</b>				
Higher Service Class (ref.)	-----	-----	-----	-----
Lower Service Class	1.19	1.3	1.9	1.41
Self-Employed and Sales	1.51	0.65	1.46	1.81
Skilled Manual	1.15	0.59	0.61	1.69
Unskilled Manual	1.32	0.45	0.78	1.46
<b>Father's Education</b>	1.54**	1.27*	0.9	1.14
<b>Household Wealth Index (HWI)</b>	2.83***	2.18***	1.22	1.12
<b>Migratory Status</b>				
Natives and Urban Migrants (ref.)	-----	-----	-----	-----
Rural Migrants	1.25	1.62	1.40	1.14
<b>Model 2</b> (Pseudo R2=0.06, n=817)				
<b>Birth Cohort</b>	0.98	0.86	1.23	0.96
<b>Socioeconomic Background Index (SBI)</b>	2.45***	2.43***	1.24**	1.16
<b>Model 3</b> (Pseudo R2=0.17, n=817)				
<b>Birth Cohort</b>	1.10	0.85	1.20	0.92
<b>Socioeconomic Background Index (SBI)</b>	1.18	1.44***	1.09	0.90
<b>Attained Years of Education</b>	2.15***	1.48***	1.09**	1.19***

/1 Baseline category = Unskilled Manual Workers

/2 SC=Service Class, RNM=Routine Non-manual, SES=Self-employed and sales, SM=Skilled Manual

**Table 9. Odds Ratios from Multinomial Logistic Models for the Class of Entry into the Labor Force. Females /1**

	<b>Class of entry into the labor force /2</b>			
	RNM	SES	SM	UM
<b>Model 1</b> (Pseudo R2= 0.12, n=734)				
<b>Birth Cohort</b>	1.2	1.02	1.27*	1.08
<b>Father's Social Class</b>				
Higher Service Class (ref.)				
Lower Service Class	6.54*	2.64	2.24	3.7
Self-Employed and Sales	1.5	0.47	0.65	0.89
Skilled Manual	3.16	0.65	0.45	2.9
Unskilled Manual	0.21	0.43	0.51	1.76
<b>Father's Education</b>	1.75*	1.38**	1.1	0.81
<b>Household Wealth Index (HWI)</b>	3.19***	2.22***	1.57***	1.01
<b>Migratory Status</b>				
Natives and Urban Migrants (ref.)				
Rural Migrants	0.18	0.23***	0.19**	0.32**
<b>Model 2</b> (Pseudo R2=0.09, n=734)				
<b>Birth Cohort</b>	0.88	0.80*	1.09	1.13
<b>Socioeconomic Background Index (SBI)</b>	4.17***	3.22***	2.08***	1.04
<b>Model 3</b> (Pseudo R2=0.23, n=734)				
<b>Birth Cohort</b>	0.74	0.73**	1.07	1.09
<b>Socioeconomic Background Index (SBI)</b>	1.37	1.55***	1.64***	0.87
<b>Attained Years of Education</b>	2.82***	1.71***	1.14***	1.12*

/1 Baseline category = Unskilled Manual Workers

/2 SC=Service Class, RNM=Routine Non-manual, SES=Self-employed and sales, SM=Skilled Manual



**Table 10. Marginal effects from Multinomial Logistic Models on the Class of Entry into the Labor Force**

	Class of entry into the labor force (males) /1					Class of entry into the labor force (females) /1				
	SC	RNM	SES	SM	UM	SC	RNM	SES	SM	UM
<b>Model 1</b>										
<b>Birth Cohort</b>	0.02	-0.01	0.03 *	-0.01	-0.02	0.01	-0.02	0.03*	0.00	-0.02
<b>Father's Social Class /2</b>										
Higher Service Class (ref.)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Lower Service Class	-0.01	0.00	0.07	0.01	-0.07	0.05	0.04	-0.01	0.04	-0.11
Self-Employed and Sales	0.04	-0.13 *	0.05	0.07	-0.03	0.04	-0.13	-0.01	0.01	0.08
Skilled Manual	0.03	-0.11	-0.05	0.10	0.03	0.09 *	-0.12	-0.11	0.12 *	0.02
Unskilled Manual	0.06	-0.16 **	-0.02	0.08	0.04	-0.02	-0.12	-0.04	0.09	0.09
<b>Father's Education</b>	0.03 *	0.02	-0.03 **	0.00	-0.03	0.02	0.05 **	-0.01	-0.04 *	-0.02
<b>Household Wealth Index</b>	0.07 ***	0.08 ***	-0.02	-0.04 ***	-0.09 ***	0.04 **	0.09 ***	0.00	-0.04 ***	-0.09 ***
<b>Migratory Status /2</b>										
Natives and Urban Migrants (ref.)	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rural Migrants	0.00	0.06	0.02	-0.01	-0.06	-0.03	-0.10	-0.10	-0.02	0.24 ***
<b>Model 2 /3</b>										
<b>Socioeconomic Background Index</b>	0.05 ***	0.10 ***	-0.02 **	-0.04 ***	-0.10 ***	0.04 ***	0.14 ***	-0.01	-0.06 **	-0.13 ***
<b>Model 3 /3</b>										
<b>Socioeconomic Background Index</b>	-0.01	0.05 ***	0.00	-0.03 **	0.02	0.00	0.04 **	0.04 ***	-0.04 ***	-0.04 ***
<b>Attained years of Education</b>	0.16 ***	0.07 ***	-0.05 ***	0.01	-0.17 ***	0.11 ***	0.17 ***	-0.07 ***	-0.04 **	-0.17 ***

Notes:

/1 SC=Service Class, RNM=Routine Non-manual, SES=Self-employed and sales, SM=Skilled Manual, UM=Unskilled Manual

/2 Discrete changes in probabilities from the reference category

/3 Marginal changes for birth cohort are controlled but omitted from the table

Source: Own estimations based on the Multinomial Logistic Models of tables 8 and 9

**Table 11. Measures of Inequality of Opportunity for specific Outcomes of the School-to-Work Transition**

	Observed Gini Index	Gini index by deciles of SBI	Inequality of Opportunity Ratio (%)	Dissimilarity index by deciles of SBI
Age at Leaving School				
Males	0.182	0.087	47.7	-----
Females	0.191	0.087	45.5	-----
Age at first job				
Males	0.145	0.033	22.7	-----
Females	0.214	0.036	16.9	-----
Years of education				
Males	0.207	0.125	60.4	-----
Females	0.230	0.134	58.3	-----
Males				
Higher Service Class	-----	-----	-----	0.25
Lower Service Class	-----	-----	-----	0.21
Self-Employed and Sales	-----	-----	-----	0.10
Skilled Manual	-----	-----	-----	0.16
Unskilled Manual	-----	-----	-----	0.17
Females				
Higher Service Class	-----	-----	-----	0.40
Lower Service Class	-----	-----	-----	0.19
Self-Employed and Sales	-----	-----	-----	0.13
Skilled Manual	-----	-----	-----	0.32
Unskilled Manual	-----	-----	-----	0.23

Source: Own calculations based on ENDESMOV 2009 data

**Table 12. Summary Table of the Effects of Socioeconomic Background Variables on the Outcomes of the School-to-Work Transition**

	Age at School Exit	Years of Education	Age at First Job	Class of Entry
<b>Unadjusted effects</b>				
<b>Males</b>				
Father's Social Class	+++	+++	++	+++
Father's Education	+++	++	+	++
Household Wealth Index	+++	+++	+	+++
Migratory Status	++	++	+	++
Socioeconomic Background Index	+++	+++	+	+++
<b>Females</b>				
Father's Social Class	+++	+++	+	+++
Father's Education	+++	++	+	+++
Household Wealth Index	+++	+++	+	+++
Migratory Status	++	++	++	+++
Socioeconomic Background Index	+++	++	+	+++
<b>Adjusted effects</b>				
<b>Males</b>				
Father's Social Class	0	0	0	+/0
Father's Education	+	+	0	+
Household Wealth Index	+++	+++	+	+++
Migratory Status	0	0	0	0
Socioeconomic Background Index	+++	+++	++	+++
<b>Females</b>				
Father's Social Class	0	0	0	+/0
Father's Education	+	+	0	+
Household Wealth Index	+++	+++	0	+++
Migratory Status	+++	+++	0	+++
Socioeconomic Background Index	+++	+++	++	+++

0 = Not significant

+ = Weak association

++ = Moderate association

+++ = Strong association

Source: own elaboration based on the results of tables 1 to 10