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# Class Origin and Young Adults' Re-Enrollment

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## Abstract

This paper examines re-enrollment decisions taken by adults who have previously participated in the labor market in the US. We investigate the influence of social origin on re-enrollment and test hypotheses based on the “status reproduction” argument. We find that young adults from the lower classes re-enroll less often than those from the upper classes and that these differences can be attributed to a large extent to different ability or performance. Beyond the effects of social origin as such, we also scrutinize the effects of the child’s class position relative to family status as a more direct implication of the “status reproduction” argument. Our analyses reveal that once young adults from higher status positions have reached their parents’ class, re-enrollment is somewhat less likely to occur. However, this effect of the child’s relative class to the parents’ is rather weak.

**Keywords:** higher education, social origin, educational decisions, re-enrollment, intergenerational mobility

**Word count:** 7,905

# 1. Introduction

The impact of social origin on educational decisions can be detected at almost every stage of a person's educational career. In the light of increasing participation in postsecondary education, there has been growing interest in social selectivity at the tertiary level. Although the impact of social origin on educational choices is found to be less pronounced at these higher levels of education, it still exists, even if previous educational achievement is held constant. Children from the lower classes enter higher education less frequently (cf. Alon & Tienda, 2007; Ayalon, Grodsky, Gamoran, & Yogev, 2008; Davies & Guppy, 1997; Karen, 2002; Shavit, Arum, Gamoran, & Menahem, 2007), and they are also less likely to progress to postgraduate studies (Mullen, Goyette, & Soares, 2003). Another strand of research examines the transition from higher education to work (e.g. Arum & Hout, 1998). This transition is often treated as a distinct event in the life course instead of as a "transitional phase" with several, individually distinct stages, although several studies have shown that it is difficult to define "the" transition as one single event (Bozick & DeLuca, 2005; Brückner & Mayer, 2005; Coleman, 1984; Jacob & Weiss, 2010; Scherer, 2005). One reason to expect a prolonged transition phase from education to work in the U.S. is the high participation rate of mature students in higher education which has been observed for quite a long time now (Slowey, 1988). In terms of social background, nontraditional and less cohesive patterns are often found among working-class children (Goldrick-Rab, 2006; Hearn, 1992). Goldrick-Rab (2006) even concludes that social class background is the most important factor affecting nontraditional attendance patterns.

Against this background, we focus in this article on one key aspect of nontraditional postsecondary enrollment patterns of young adults: *the transition from the labor market (back) into higher education and the impact of social background on re-enrollment*. The return from the labor market to the educational system can be regarded as a further educational threshold. The extensive findings on the influence of the socio-economic background on decision-making in educational transitions prompt inquiry into the impact of the parents' social background on re-entry into education. In principle, both scenarios of social selectivity are possible. On the one hand, children from higher social backgrounds may be more likely to re-enter education because their parents encourage them to do so. This hypothesis is related to the theory of aversion to downward intergenerational class mobility (Breen & Goldthorpe, 1997), a frequently advanced explanation for class differences in educational decisions which has however rarely been tested directly (Gabay-Egozi, Shavit, & Yaish, 2009; Stocké, 2007; van de Werfhorst & Hofstede, 2007). The case of late educational enrollment is a favorable constellation for testing hypotheses derived from this theory, since status reproduction failure can be operationalized directly by comparing parental class to the class position that the child has already reached. An opposing hypothesis assumes that lack of financial resources will cause lower-class students to delay their educational careers. In this case we would expect more working-class students to re-enroll, as this has been their intention ever since they left high school.

We test these competing hypotheses empirically by analyzing the U.S. National Longitudinal Study of Youth 79 (NLSY79). This dataset enables us to operationalize the relative status achievement of parents and children directly and time varying. As a result, we do not find strong evidence for the

“relative risk aversion” mechanism as predicted by the Breen-Goldthorpe model but academic performance to be the most important factor for re-enrollment decisions. The article closes with a discussion of our findings.

## 2. Social Inequality in Educational Decisions

### 2.1 Re-enrollment and intergenerational social mobility

So far not many studies have examined the impact of social origin on re-entry into the educational system (Elman, 1998; Goldrick-Rab, 2006). Previous research on educational careers indicates that there is some evidence for social disparities. Using NLSY79 data, Oettinger (1993) and Light (1996) find that both low parental education and low family income have a negative impact on re-enrollment. A positive effect of the mother’s education has been shown by Marcus (1986), who analyzes the NLS Young Men Data, and also by Astone et al. (2000), who find higher re-entry rates for inner-city African Americans whose mothers have attended at least “some college”. Elman and O’Rand (2007) consider the father’s occupational prestige and find a significant and also positive influence on the probability of re-entering education. While previous research has confirmed links between re-enrollment and parental education, income, and occupation, none of these studies explicitly refers to relative risk aversion as the main theoretical explanation, nor do any of them model relative class position directly by comparing the child’s current class position to the parents’ class status up to the point at which re-enrollment occurs. In the following we discuss this theoretical mechanism in greater detail and derive hypotheses that can be tested empirically.

Theoretically, re-entering education – like any educational decision – can be modeled as a rational decision to invest in human assets that pay off in the labor market with higher salaries and more favorable class positions. In such a framework different decisions at educational thresholds can lead to social inequality in educational attainment. Following the distinction by Boudon (1974), primary and secondary effects of social origin cause differences in the educational achievement of lower- and upper-class children. Primary effects are those effects mediated through inferior performance by children from less privileged socio-economic backgrounds. Secondary effects are inequalities in educational attainment due to different educational decisions taken by members of different classes. Breen and Goldthorpe (1997) proceed on the assumption of rational decision-making by families and explain the secondary effects of class background on educational achievement with reference to three mechanisms (Breen & Goldthorpe, 1997; see Erikson & Jonsson, 1996 for a similar model). The first and most important mechanism is that families strive to achieve at least the same status for their offspring as they have achieved themselves (*“relative risk aversion”* or *“status reproduction”*). As families interpret non-achievement of this status as “failure”, upper-class families have greater incentives to invest in education in order to avoid downward mobility. The second mechanism advanced in the Breen-Goldthorpe model to explain the relative absence of investment in education by the lower classes is differences in resources. Service class families have on average more (financial) resources to cover the direct and indirect costs of education than working class families do. This argument is extended by Hillmert and Jacob (2003). When talking about education as an investment, a current lack of finances could be compensated by loans on the future returns of education. But

capital markets are imperfect, and returns to education are not fully predictable over a long-term horizon. Therefore it is highly uncertain how long it will take to recoup expenditures. Even if student loans are available at favorable rates, the payoffs from educational investments cannot be predicted with any certainty. Upper-class children may profit from backing by their parents for this risky investment without staking a high share of their wealth and future income.

The third mechanism of the original Breen-Goldthorpe model is rooted in differences in academic ability and expectations of success. This is where the Breen-Goldthorpe model brings in the primary effects of social origin. First, class differences can be assumed to exist in actual levels of performance. If the mean level of academic ability is higher among service-class children they will be more often successful in admission procedures than their counterparts from working-class families. This is a severe restriction of the rational choice model explicitly acknowledged by Breen and Goldthorpe: In the set of choices of educational alternatives, a particular educational track may not be present for all children due to restricted admission. However, even if actual academic ability might allow entering higher education, there might be still class differences in educational decisions within the rational choice of Breen and Goldthorpe, since members of the upper classes are more confident about *future* educational success. Upper-class children tend to have had more gratifying experiences in their previous educational careers than lower-class children had; their families are more familiar with the demands of higher tracks and this leads to an anticipation of greater probability of future success. In the subsequent discussion of further variations of the model parameters Breen and Goldthorpe introduce another set of resources that influence families' assumptions about the returns to education: social capital and labor market-related networks on the parents' part that can be used to improve access to service-class positions even in the case of educational failure. While upper-class parents possess these non-monetary resources to improve the returns from education, this is less likely to be the case for children from a lower social background.

Having discussed the main arguments of rational choice theory pertaining to educational decision, we now apply it to the particular situation of late re-enrollment as a highly suitable test case for the Breen-Goldthorpe model.

Theoretically, the transition from the labor market back into the educational system can conform to two modes of decision-making. First, the pattern of first entering the labor market and then returning to the educational system may originate from what we call a "*planned decision*". In this case, young people entering the labor market already anticipate a return to education. This might occur in particular for young adults who experienced a lack of parental resources after high school that had prevented them from entering higher education right away. Then, mainly working-class students should enter the labor market to earn their own income and amass savings of their own to cover the costs of college education by themselves later in life. In this case, social background effects mitigate and are less operative in late educational decisions than the strong social class differences known for earlier educational thresholds are.

Second, a decision to re-enroll may be made after entering the labor market and without having intended to do so at the time of labor market entry. We call this an "*ad hoc decision*". We expect it to occur in particular if service-class children failed to achieve the parent's status. If education is

assumed to be an efficient means to enter a service-class position, one obvious option in the case of status reproduction failure is further investment in education. In early educational decisions, education can only be seen as a resource for avoiding downward mobility. In the case of late educational decisions, however, failure to achieve parental class status can be experienced directly. Therefore young adults can be expected to react to non-achievement of parental class status with an ad hoc decision to re-enroll. In this case, the current class position in relation to the parents', rather than the finances at the end of high school, would be the strongest predictor of re-enrollment.

## 2.2 Hypotheses

From previous research and from the theoretical considerations set out above we derive the following hypotheses. The first hypothesis specifies the influence of *parental class* only:

*Hypothesis 1a:* Social origin favors the decision of upper-class children to re-enroll for various reasons, so they are more likely to re-enroll than children of less privileged classes. As most of service-class children's advantages, such as higher probability of success in higher education and financial support from the parents, already exist before first labor market entry, we expect the delay of enrollment to be rather short in their case.

However, participation in the labor market may change some of the parameters affecting these mechanisms. Participation in the labor market helps in evaluating returns to education and in gaining confidence in (cognitive) abilities that are independent of the educational system. Furthermore, working provides income and the possibility of amassing savings that can be used for investment in late education. Accordingly, a more direct measure of (lack of) income and wealth at the time of graduation from high school should be more predictive than parental class position. If the main reason for delayed entry into higher education is to amass savings for later re-entry into education, we would expect students living in straitened circumstances when graduating from high school to conform with this pattern, independent of their parents' class status when they were adolescents. This brings us to hypothesis 1b, which partly competes with hypothesis 1a:

*Hypothesis 1b:* No (or only minor) class differences in re-enrollment probability are expected because participation in the labor market helps children from less privileged backgrounds to catch up with their peers. However, as it takes some time to save enough money to cover the costs of higher education, we expect re-enrollment of the lower classes to occur later. Given the expectation of an equal ultimate re-enrollment probability, class differentials would decrease over time.

The main argument we draw on in our theoretical discussion is the families' avoidance of downward mobility. If this is an empirically important motive, we can expect not only parental class to have an effect on re-enrollment, but also the *relative* achievement of the child in the labor market compared to that of the parents. If parental class status has been achieved – regardless of college graduation – then re-enrollment should not occur, even if the parents' or the student's own resources would make it a viable proposition. There should be higher re-enrollment rates for children who fail to achieve at least the same class status as their parents, since additional education could be seen as a way of achieving the parents' class. According to this view, it is not the absolute status of the parents that matters (for provision of resources, confidence in abilities, etc.), but the *child's relative class* status

compared to that of the parents. When we look at relative class over time, i.e., comparing month-by-month the child's current class with the parent's class, we expect re-enrollment to occur particularly if the child's class is lower than the parent's. Therefore we would expect:

*Hypothesis 2:* Not achieving at least the parent's class status via participation in the labor market increases the likelihood of re-enrollment.

### **3. Data and Methods**

#### **3.1 Data**

Capturing the overlap between educational careers and labor market entry requires access to detailed longitudinal data. Here we draw upon the National Longitudinal Study of Youth 1979 (NLSY79, U.S. Department of Labor, 2008). The NLSY79 is a cohort panel containing 12,686 respondents born between 1957 and 1965 and starting in 1979. The response rate for the initial interview in the selected subgroup was 90 per cent of all people designated for interviewing. From then on, annual response rates continue to be high. In 1994, when the study moved from annual to biannual interviews, the response rate<sup>1</sup> was still 89 per cent of all respondents who completed an interview in 1979. From then on, the attrition rates increased somewhat. In 2006, at the time of the last interview we use for our analyses, the rate had dropped to 76 per cent. Interviews were mostly conducted as personal face-to-face interviews, with a small minority of telephone interviews upon the explicit desire of the respondent or the interviewer or for the reason that the respondent lived in a very remote area. The dataset contains detailed information on educational attainment, labor force status, and the number of hours worked. We select birth-cohort respondents from the main sample as of 1961, restricting our perspective to those attaining either a high school degree or GED. This leaves us with 2,131 cases for our empirical analyses. We did not restrict the age of the respondents to a certain limit. However, right-censoring occurs in 2006, when the respondents are between 41 and 45 years old.

#### **3.2 Variables and methods**

We look at students already working full-time in the labor force<sup>2</sup>, and analyze whether they re-enter education or not, and if so, how long it takes before they re-enroll. As we are interested in both re-enrollment itself and its timing, we use techniques of event-history analysis. For description we use survivor functions, for the multivariate analysis we specify Cox models assuming proportional hazards for all independent variables in the model. To include time-varying covariates, we split our dataset into a person-period data format. For each person we use one observation for each month, which enables us to include covariates that change from one month to the next.

Social origin as the central independent variable is measured by a simplified version of the EGP class scheme (Erikson, Goldthorpe, & Portocarero, 1979). Parental class is measured retrospectively in terms of the occupation of the adults in the household where the child was living at the age of 14. In cases where only one adult is present, we refer to his/her class position as the dominant class. Class construction is based on the 1970 census classification of occupations, using the coding scheme

developed by Hout (2005). From 2002 onwards, the 2000 U.S. census classification of occupations is the only one available. On this basis we have constructed a classification of our own that follows the Hout coding scheme as closely as possible. We collapse the EGP class scheme into four categories, as set out in Table 1. There are two reasons for reducing the class scheme: First, we avoid classes with only a few cases; second, after simplifying the class scheme, we assume that the remaining categories can be treated as an ordinal variable. To distinguish timing from probability effects and to test for duration dependence of the effect of social origin we included interaction terms of class and time into our models (Bernardi, 2001).

**Table 1: EGP Class Scheme and Simplified Version**

Full EGP Class Scheme Categories		Simplified Version
I	Professionals and managers, higher grade	Service Class (1)
II	Professionals and managers, lower grade; technicians, higher grade	Service Class (1)
IIIa	Routine non-manual employees, higher grade	Intermediate (2)
IIIb	Routine non-manual employees, lower grade	Working Class (3)
IVa	Employers	Service Class (1)
IVbc	Small employers and self-employed workers	Intermediate (2)
V	Technicians, lower-grade supervisors of manual workers	Intermediate (2)
VI	Skilled manual workers	Working Class (3)
VIIa/b	Unskilled manual workers	Routine Working Class (4)

We operationalize relative class position by comparing the child's current class to the highest class of both parents. The respondent's current class is constructed in the same way as the parents'. The variable for relative class position takes the value of one if the parent's class has already been reproduced by the respondent's current class position. Otherwise the value is zero. We treat respondent's unemployment as "non-achievement of parental class". Accordingly, the respondent's relative position to the parents is a time-varying variable that can change over process time. It can take a different value every month and is included in our analysis with a time lag of 6 months. We decided not to use a more detailed measure of relative status even if this could be more informative because one would expect a stronger motivation to re-enroll the higher the distance to the parent's class. However, given that class as well as alternative measures of social status are ordinal variables without clearly defined distances between categories, such a distance measure would be arbitrary and vague.

To cancel out performance-based primary effects accounting for social class differences in re-enrollment patterns, we use the percentiles of the "Armed Forces Qualification Test" (AFQT), an aptitude test conducted with all NLSY79 respondents.<sup>3</sup> We also include whether or not the respondent had attended a college preparatory program in high school. On the one hand, this serves as a further indicator of performance. On the other hand, we can also capture to some degree the problem of anticipated decisions, which has been discussed before: it is possible that lower class youths intend to study, but are not able to do so before amassing their own savings. The track chosen in high-school



serves as an indicator for the intention to enter college. We are not able to include in-school performance, such as school marks or teachers assessment of the student's performance. This is certainly a limitation to our data even though grades are a much less recognized signal for performance than in other countries.

As further controls, several variables are included that either have strong links with selection for our sample or may lead to misinterpretations of the class-origin effects. These are gender, race, birth cohort, age when the school-leaving certificate was obtained, type of previous degree (high school diploma vs. GED), and achievement of an A.A. degree by the respondent.<sup>4</sup> To cater to the hypothesis that the main mechanism operative in class-biased selection for re-enrollment is the lack of financial resources in lower-class families, we control for the poverty status of the household the student is living in at the age of eighteen. Poverty level is included in the NLSY dataset by using the "Poverty Income Guidelines" issued annually by the U.S. Department of Health and Human Services. We are aware that a dichotomous measure of financial constraints is a very crude measure of the family's overall economic resources. However, we expect that our underlying assumption that financial constraints hinder enrollment directly after high school should be relevant in particular for those students whose families experience poverty at that crucial point in the educational career, even if it turns out to be a transitory situation. In that case, we would also expect enrollment to occur later, as predicted by our hypothesis.

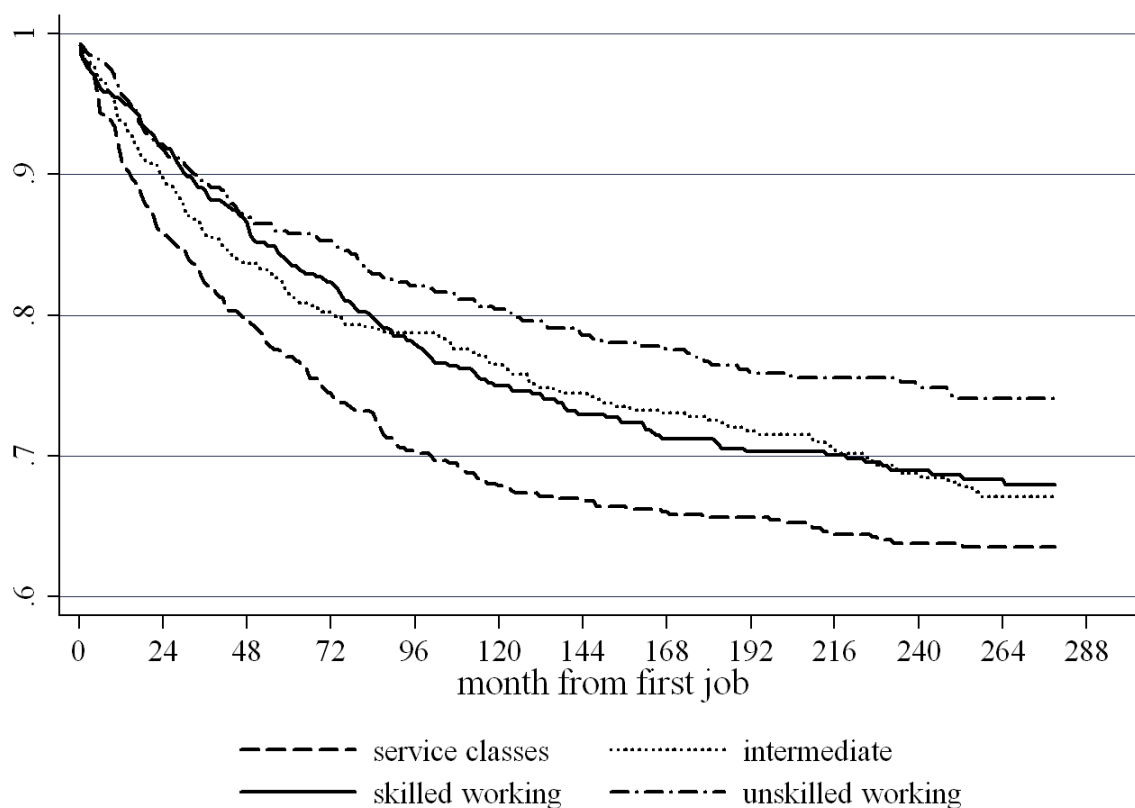
Table A1 in the Appendix provides a descriptive overview of our variables. There, we also show survivor curves that illustrate the achievement of parental class after entering the labor market (Figure A1). The curves show that directly after entering their first fulltime job more than 80 per cent of the children of service-class origin did not manage to enter their parents class without having attained a college degree. With working experience and some years spent in the labor force, this group of non-achievers decreases to about 40 percent 10 years later. Note that the population at risk are only young adults without a college degree, which means that the total rate of achievement of the parental class for the whole population is very likely to be much higher. In contrast, most children of skilled working-class parents can maintain their parents' class without a degree. Sixty percent already enter the labor market as skilled workers (or even in a higher class), and 10 years later only less than ten percent still occupy a lower class than their parents'.

## 4. Results

We first present some descriptive results on the re-enrollment over time in different classes. Figure 1 shows survivor curves for the event of re-enrollment after having entered the first fulltime job. Children from service-class backgrounds re-enroll much faster than all others, as the survivor curve is much steeper. This shape supports our hypothesis 1a on a relatively short delay of re-enrollment for higher-class children. They also show a higher overall probability of ultimate event occurrence. At the end of our observation window more than 20 years after labor market entry, less than 65 percent of children of service-class origin who began their first job without a degree have not re-entered higher education,

in contrast to approximately 75 percent among the group with the lowest-class parents. Hence, this descriptive finding does not support hypothesis 1b about the catching-up processes of lower-class children over time. With the following multivariate analyses we will test our hypothesis in more detail.

**Figure 1: Survivor curves of re-enrollment after labor market entry by social class origin**



The multivariate analysis takes place in two stages. First, we focus on class differences in re-enrollment rates, disregarding the child's own achievement. Second, we look at "relative" class status, taking into account whether or not the class of origin has already been achieved. The modeling strategy differs in each case. In the first stage we include all the respondents in our sample, whereas in the second stage we estimate separate models for the different classes of origin.

Our first two hypotheses, 1a and 1b, center on the impact of parental social class on the child's decision to re-enroll. We start with a bivariate model that considers only the (highest) parental class (Model 1 in Table 2) and shows the "gross" effect of social origin on re-enrollment. It turns out that all other classes enroll in higher education significantly more slowly and less often than the service classes (*reference category*). This effect is particularly marked among the unskilled working classes. Thus in the bivariate model, and in accordance with hypothesis 1a, we find that children of service-class parents more often re-enter the educational system. The models including interactions effects of social class and time show that class differentials in tendency decrease over time, as interaction effects are all positive (results are shown in the Appendix, Table A2). However, there is one exception

in the second time period, in which children from the skilled working class have a slightly higher pace of re-enrollment (see also shape of survivor functions in Figure 1). Only the differential between service and unskilled working classes comes close to statistical significance. All other interactions are insignificant. Hence, we find only weak support for our hypotheses on decreasing class differentials over time.

In a second step, we elaborate a model that includes the poverty status of the household when the child was eighteen years old. If poverty status reduces class effects, monetary constraints will be the main reason for the differences observed. If the class coefficients are extended to include poverty and the effect of poverty itself is negative, then this will support the “amassing of savings” strategy discussed in hypothesis 1b. As we can see from Model 2, poverty status has only a weak significant effect, and the class coefficients remain almost unchanged, which contradicts hypothesis 1b.

Finally, we evaluate whether the observed class differences can be explained by academic performance rather than by different class achievement goals, since the Breen-Goldthorpe model mainly builds on the secondary effects of social origin. In Model 3 we include various indicators for primary effects. The first is *aptitude*, measured using the AFQT percentiles, e.g., whether the respondent holds a *GED* or a *high school diploma* and whether he/she had attended a college preparatory track in high school (Model 3 in Table 2). We chose not to estimate a coefficient for achievement of an A.A. degree as it did not justify the proportionality assumption but instead stratified the model in order to hold this constant. Further, we control for race in order to account for racial discrimination or policies compensating racial disadvantages at college entry (cf. Grodsky, 2007).

**Table 2: Cox Regression Models on the Time till Re-enrollment in College Education**

<i>Explanatory variables</i>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
<b>Max. class of parents</b>			
Intermediate (Ref.: <i>Salariat</i> )	-0.198 <sup>+</sup> (-1.85)	-0.200 <sup>+</sup> (-1.87)	-0.148 (-1.36)
Skilled working class	-0.218* (-2.11)	-0.207* (-2.00)	-0.071 (-0.66)
Unskilled working class	-0.463*** (-3.89)	-0.441*** (-3.70)	-0.200 (-1.58)
<b>Poor</b>		-0.201 <sup>+</sup> (-1.77)	-0.139 <sup>+</sup> (-1.18)
<b>GED</b> (Ref.: <i>High School diploma</i> )			0.035 (0.27)
<b>AFQT score</b>			0.010*** (5.41)
<b>College prep. program</b> (Ref.: <i>vocational, commercial or general program tracks</i> )			0.283** (3.12)
<b>Male</b>			-0.326*** (-4.04)
<b>Race: black</b> (Ref.: <i>Race white</i> )			0.504** (3.47)
<b>Race: hispanic</b>			-0.580*** (3.90)
<b>Cohort 1961</b> (Ref.: <i>1964</i> )			0.132 (1.01)
<b>Cohort 1962</b>			0.195 (1.68)
<b>Cohort 1963</b>			0.106 (0.89)
<i>N (person months)</i>	379,900	379,900	379,900
<i>N (persons)</i>	2,131	2,131	2,131
<i>Number of failures</i>	635	635	635

Note: Model 3 is stratified by achievement of an A.A. degree

z statistics in parentheses

<sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

In Model 3 (the full model), class differences are reduced and become insignificant. However, it is noteworthy that in tendency all three lower classes still differ in the way we hypothesized. Moreover, it should be kept in mind that the significance we report has been tested for with a conservative two-sided test. The AFQT score and having attended a college preparatory track have strongly positive effects on re-enrollment, the first indicating the importance of aptitude and achievement for admission procedures into higher education in the U.S., the latter showing the relevance of initial intentions and plans to re-enter college later in life. In sum, Model 3 yields evidence that performance-based primary effects and initial intentions explain out the lion share of the social class differentials. The Breen-

Goldthorpe model expects that not social class as such matters for educational decisions but the motive of status maintenance, i.e. in our case whether or not the parental class has already been achieved should predict further investment into education. Accordingly, in hypothesis 2 (“relative class”) we argued that it is important for later enrollment whether parental class has already been attained or not. In Models 6 to 8 we add a time-varying 0–1–variable for attainment of parental class. We estimate these models separately for the three classes that can make downward moves. The routine working class is not considered, because here class reproduction failure is ruled out. All other control variables are the same as in Model 3.

**Table 3: Cox Regression Models on the Time till Re-enrollment in College Education by Parental Class – the Effect of “achieving parental class status”**

<i>Explanatory variables</i>	<b>Model 4, highest parental class</b>		
	<b>service</b>	<b>intermediate</b>	<b>skilled working</b>
<b>Achieved parental class status</b> ( <i>time varying</i> )	-0.085 (-0.50)	-0.323 <sup>+</sup> (-1.77)	0.115 (0.70)
<b>Poor</b>	-0.062 (-0.29)	-0.367 (-1.28)	0.103 (0.49)
<b>GED</b> ( <i>Ref.: High school diploma</i> )	-0.003 (-0.01)	0.324 (1.13)	0.087 (0.36)
<b>AFQT score</b>	0.008* (2.27)	0.013*** (3.28)	0.014*** (3.93)
<b>College prep. program</b> ( <i>Ref.: vocational, commercial or general program tracks</i> )	0.202 (1.20)	0.220 (1.20)	0.363* (2.13)
<b>Male</b>	-0.043 (-0.31)	-0.512** (-2.95)	-0.604*** (-3.68)
<b>Race: black</b> ( <i>Ref.: Race white</i> )	0.919** (2.95)	0.375 (1.07)	0.500* (2.03)
<b>Race: hispanic</b>	0.218 (0.69)	0.862** (2.63)	0.532 <sup>+</sup> (1.68)
<b>Cohort 1961</b> ( <i>Ref.: 1964</i> )	0.241 (1.19)	0.045 (0.18)	0.149 (0.63)
<b>Cohort 1962</b>	0.226 (1.14)	-0.123 (-0.49)	0.208 (0.89)
<b>Cohort 1963</b>	-0.195 (-0.93)	0.346 (1.49)	-0.037 (-0.15)
<i>N (person months)</i>	105,118	90,123	100,374
<i>N (persons)</i>	609	493	576
<i>No. of failures</i>	213	148	168

Note: Models are stratified by achievement of an A.A. degree

z statistics in parentheses

<sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

In the samples of service-class and intermediate-class children we find negative coefficients for those who have reached at least the class status of their parents. This indicates a decreasing hazard rate of the re-entry process, which is in accordance with the suggestion in hypothesis 2 that the *relative* class

position has an impact. This means that children from the service and intermediate classes withdraw from their efforts to re-enroll in higher education if they have already attained at least the class status of their parents. However, the coefficient for the service classes is not significant, and for intermediate-class offspring it is only weakly significant at the 0.10 level (two-sided test). This may partly be due to the smaller subsamples we are using here. The coefficient for the skilled working classes is positive but also not significant. In tendency, these children re-enroll in higher education at a higher rate and after graduation may even achieve a position higher than their parents' class. Several reasons might explain why those from a working-class background that are employed in unskilled positions refrain from further education, which we cannot test here. In terms of our theoretical considerations, they may not earn enough to amass savings for a costly re-entry. Regarding the theoretical concepts of expectation of success and aspirations, there might also be some kind of negative selection into unskilled working class positions of those with the least aspirations and ambitions that is not fully measured by the variables included in our model. Beyond that, certain circumstances in other life domains such as partnership and family formation might affect particularly those in the lowest-class positions, preventing them from re-enrollment<sup>5</sup>. Looking at the poverty status of the family during adolescence, we see that it reduces the re-entry rates for service and intermediate classes and increases those for the working class, albeit in all three models the estimates are not significant at conventional criteria.

Regarding primary effects of cognitive ability, previous performance and intentions of enrollment as indicated by attainment of GED, AFQT-scores and college preparatory track, we see that in particular for the intermediate and skilled working classes the AFQT-score is a highly significant predictor of re-enrollment. Students with higher performance scores indeed draw on their academic potential and re-enroll. College orientation during high school also positively influences re-enrollment, in particular for the offspring of working-class parents, who already in high school may have ambitions to achieve a higher position than their parents'.

Summarizing our findings on the (absolute) class of origin, we do observe class differences in re-enrollment, but they are considerably less marked when we control for primary, performance-based effects. Parents' class position does not have a considerable impact on the decision to enroll in higher education after labor market entry. There is much clearer evidence for performance-based differences in social origin on educational re-entry. For the achievement of parent's class we find only weak evidence for the hypothesis that class-achievement goals are geared to relative parental class and that intergenerational downward mobility is avoided by giving up a position in the labor market and re-enrolling at college. Again, our ability measures are more important for re-enrollment than non-achievement of parents' class.

## **5. Summary and Conclusion**

In our analysis we find that effects of parental class are present even in very late educational decisions, i.e., for re-enrollment back from the labor market to higher education. In other words, the so-called "second chance" or late educational transitions of young adults are still influenced by

parental class and wealth. This makes further investigations into the reasons for the long-lasting effects of social origin worthwhile. Such investigations should include a more detailed assessment of mechanisms at both the micro-level and in institutional, macro-level contexts that have a major influence on educational careers. Another important finding besides the existence of class differences in re-enrollment is the relatively minor importance of decision-based secondary effects compared to other mechanisms linked with ability and previous educational achievement. In particular, college orientation in high school and aptitude have a much greater influence on the decision to re-enroll. In the explanation of secondary effects, poverty at the time when students leave high school turns out to be predictive for later re-enrollment, although the effect is rather weak. A central mechanism in the explanation of secondary effects proposed by Breen and Goldthorpe (1997) is the “status reproduction” motive. We tested predictions of behavior which can be derived straight forward from this mechanism by looking at a young adult’s achieved class compared to the parent’s. We find only weak support for this argument. Although once young adults have achieved the same class as their parents in tendency they re-enroll to a lesser extent, but the respective coefficients are not statistically significant at conventional criteria. Further, since primary effects are a very strong predictor and we cannot be sure that all possible primary effects are kept constant in our models, we cannot reject the possibility that only primary effects alone would completely explain the small remaining class differences. On the other hand, it is at least as likely that performance affects the selection into the group which has already achieved parental status. If this is the case, more able young adults would be more often in the group who has achieved parental status. At the same time, they are more likely to re-enroll. This would suppress the effect of relative status and we would underestimate the influence of the status maintenance motive. In order to clarify these two processes, a more precise measurement of primary effects as school marks and a dataset with more respondents would be very helpful.

In general, the rather weak evidence for the relative risk aversion argument is in line with the few previous direct tests of the model (Gabay-Egozi et al., 2009; Stocké, 2007; van de Werfhorst & Hofstede, 2007). More conclusive are our results on performance differences between classes (primary effects), which partly explain class inequalities in late educational entry. This is not only notable in theoretical terms. It also suggests both, late access to higher education and its returns are hard to evaluate without measuring cognitive ability.

To fully evaluate the role of social origin plays for re-enrollment in the process of intergenerational mobility, our analyses would have to be extended. We have shown that family background influences educational choices beyond the first transition to employment but only indirectly via social differences in performance and college orientations and not via a direct class effect over and above academic performance. Further research can also shed light on more fine grained social differences we did not examine here. For example, previous empirical research has shown that many nontraditional students are enrolled in community or 2-year colleges (Brint & Karabel, 1989), so there may be a second dimension of social inequality involved over and above timing and general enrollment tendencies. Although the distinction between 2- and 4-year colleges is not central to the “relative risk aversion” argument that we focus on here, we are aware that our analyses underestimate total social inequality between those who enroll late and those who never enroll. Further, our analyses point to pronounced

gender differences in re-enrollment patterns that might be due to differences in the labor-market careers of men and women and require further investigation.

Beyond that, the general importance of social inequality in re-enrollment involves even more questions pertaining to social origin and the education of adults in later life. For example, not much is known about the development of parental class effects throughout the life course (cf. Jacob & Hillmert, 2010). Finally, our findings raise the question of the effects of “belated” education on later labor-market outcomes. Although it is well known that there is a wage penalty for late timing of education compared to early timing (Taniguchi, 2005), we do not know of any study that has assessed differences in class status achievement. All these questions must be left to further research and call for a more precise investigation of social inequality, re-enrollment, and other educational decisions made by adults.



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# Appendix

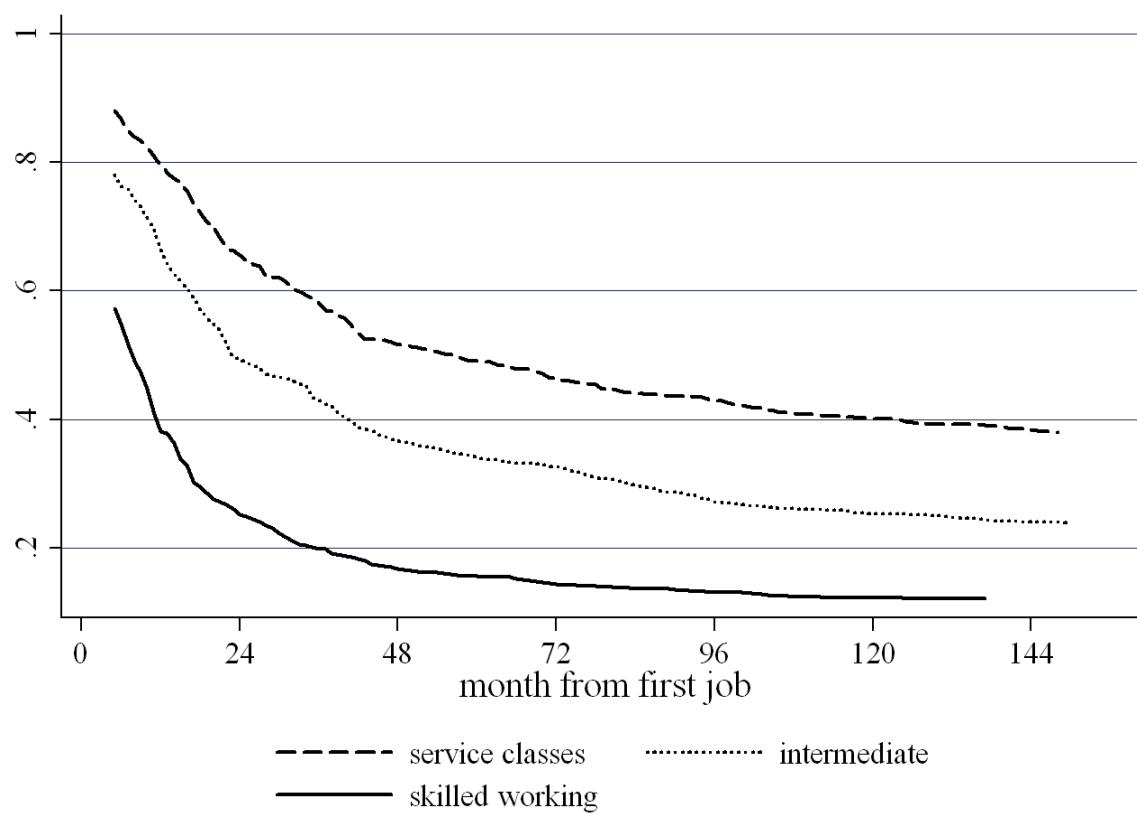
**Table A1: Descriptive Overview of Variables**

<b><i>Explanatory variables</i></b>	<b>Mean (SD) / %</b>
<b>Max. class of parents</b>	
salarial (EGP I, II, IVa)	28.6
intermediate (IIIa, IVb, V)	23.1
skilled working class (IIIb, IVc, VI)	27.0
unskilled working class (VIIa, VIIb)	21.3
<b>Poor</b>	16.8
<b>GED</b>	13.3
<b>A.A. degree obtained</b>	4.2
<b>AFQT score</b>	52.5
	(26.7)
<b>Male</b>	51.3
<b>Race</b>	
Black	10.0
Hispanic	6.5
White or Other	83.5
<b>Cohort 1961</b>	25.5
<b>Cohort 1962</b>	27.6
<b>Cohort 1963</b>	25.5
<b>Cohort 1964</b>	21.4
<b>College preparatory program in high school</b>	48.9
<i>N (persons)</i>	2,131

**Table A2: Cox Regression Models on the Time till Re-enrollment in College Education**

<b><i>Explanatory variables</i></b>	
<b>Time since labor market entry</b>	
7 – 18 months (Ref.: ≤ 6 months)	-0.634
≥ 19 months	0.997
<b>Max. class of parents</b>	
Intermediate (Ref.: salariat)	-0.575 <sup>+</sup> (-1.91)
Skilled working class	-0.323 <sup>+</sup> (-2.11)
Unskilled working class	-1.067 <sup>**</sup> (-2.85)
<b>Interaction: Class * time</b>	
Intermediate * 7-18 months	0.460 (1.18)
Skilled working class * 7-18 months	-0.659 (-1.61)
Unskilled working class * 7-18 months	0.788 <sup>+</sup> (1.71)
Intermediate * ≥ 19 months	0.431 (0.90)
Skilled working class * ≥ 19 months	0.263 (0.90)
Unskilled working class * ≥ 19 months	0.660 <sup>+</sup> (1.65)
<i>N (person months)</i>	379,900
<i>N (persons)</i>	2,131
<i>Number of failures</i>	635
z statistics in parentheses	
<sup>+</sup> $p < 0.10$ , * $p < 0.05$ , ** $p < 0.01$ , *** $p < 0.001$	

**Figure A1: Survivor curves of achievement of parents' class after labor market entry**



## Notes

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- <sup>1</sup> The response rate is defined as "...a percentage of the number of base-year respondents not known to be deceased" (NLSY79 User Guide, 2008)
- <sup>2</sup> We define "being in the labor force" as working at least 25 hours per week or being unemployed.
- <sup>3</sup> The "Armed Services Vocational Aptitude Battery" was administered to the whole NLSY sample in 1980. The score is a weighted average of different scores achieved in tests on such things as arithmetical reasoning, numerical operations, vocabulary, and paragraph comprehension. For the use of the score in a similar context, see Oettinger (1993).
- <sup>4</sup> Although achievement of an A.A. degree can be a time-variant variable, empirically it turned out that in our sample of employed individuals all A.A. degrees had been obtained earlier. So a specification of it being time-variant was not necessary. Furthermore, a test for Schoenfeld residuals indicated that the proportional hazard assumption cannot be justified for this variable, so we control for an A.A. degree in the estimation by using it as a stratifying variable. Theoretically, the non-proportionality also seems plausible, as having obtained an A.A. degree may indicate a higher intention to re-enroll and more possibilities for re-enrollment are open than without one.
- <sup>5</sup> From the perspective of the relative risk aversion argument it might as well be argued that college education is in the case of students from the skilled working classes not necessary to maintain parental status and they therefore do not reenter more often.