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# CHANGES IN STATUS ATTAINMENT IN HUNGARY BETWEEN 1910 AND 1989: Trendless fluctuation or systematic change?

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**ABSTRACT:** This article addresses the effects of economic and political change on social mobility in Hungary between 1910 and 1989 by investigating whether the effects of family background on schooling and the effects of family background and schooling on first occupation vary between periods in Hungary's twentieth-century history. For this purpose, we distinguish five periods: the long-lasting Depression (1910 to 1933), the period around the Second World War (1934 to 1948), the long 1950s (1949 to 1967), the period of reform socialism (1968 to 1982), and the decline of socialism (1983 to 1989). Using large-scale datasets from 1973, 1983, 1992 and 1993, we are able to investigate developments in the parameters of the status attainment model for about 75,000 men and women. We use spline regressions to find out whether trends in the effects vary between periods. Linear secular trends in the effects of family background and schooling do not predominate; spline models reveal discontinuities between periods. On the other hand, a trend from ascription to achievement both for men and women can be observed. In contrast to the general assumption, the most important deviation from the general trend has taken place in the years before the communist take-over.

**Key words:** Social mobility; status attainment; social inequality; longitudinal historical analysis; Hungary

## Introduction

This article focuses on historical developments in social mobility and social reproduction in Hungary. We address this research question from a status attainment approach, and focus on the effects of social background on educational attainment and on the effects of social background and educational attainment on occupational attainment. Using four large-scale datasets collected in 1973, 1983, 1992 and 1993, we investigate the process of status attainment of more than 75,000 men and women who entered the labour market between 1910 and 1989. The first aim is to investigate whether there have been significant developments in the determinants of educational and occupational attainment in Hungary over time, and whether such developments display a particular trend. The second aim is to find out whether we can adequately explain historical developments. For this we use two major hypotheses: the *modernization thesis* and the *political thesis*.

According to the *modernization thesis* (Treiman 1970), economic development will lead to a labour market in which social origins can no longer affect an individual's socio-economic position, because jobs demand increasingly higher skill levels from the workforce. Industrialization leads to fiercer competition between employers, to more efficient selection processes on the labour market, and thus to weaker effects of social origins. Technological innovation and the process of industrialization make society more open and means that family background will have only limited effects on educational and occupational attainment. Individual assets, especially diplomas, aspirations and effort, will determine who will get ahead (Blau and Duncan 1967).

The *political thesis* (Parkin 1971) argues that given a certain level of technological development, a country's political and cultural conditions will give way to variation in social mobility. Several institutions, which regulate a country's mobility regime, may be affected by policy measures. This is in the first place the educational system. Both the social selection processes, which take place at school and the relationship between education and the labour market, are relevant for social mobility. When education is freed from financial cost, or when the transition into different tracks is made at an older age, the effects of social origins on educational attainment may weaken. And when the link between education and the labour market is more stringent in a country, the direct influence of parents on job level cannot be large. Shavit and Müller's edited volume (1997) shows that the link between education and labour market entry is governed by nation-specific patterns. A second way in which policy measures could affect a country's mobility regime is in the allocation of jobs with regard to their social background. Discrimination in the labour

market against the offspring of low (or high) social origins will increase or lower the effects of family background on job status.

Both the modernization and the political theses hold that variation in social mobility regimes between countries or between periods within a country is systematic, and that it may be understood by a society's economic and political development. Other students of social mobility do not agree, and the validity of both theses has long been criticized. Sorokin (1927) did not see systematic variation in the mobility regime of a given society and coined the term *trendless fluctuation* to describe developments in social mobility. In their monograph on intergenerational mobility in nine European countries in the 1970s, Erikson and Goldthorpe (1992) arrived at the conclusion that between-country differences in the association between fathers' and sons' occupational class are small. Shavit and Blossfeld (1993) arrived at a comparable conclusion with respect to family background effects on educational attainment. In most countries covered in their volume, no change was observed over the past fifty years. However, other studies have found significant variation in social mobility between countries or between periods within a country (Ganzeboom *et al.* 1989; DiPrete and Grusky 1990; De Graaf and Luijkx 1993). These authors argue that limited statistical power means that the hypothesis of no differences between countries or the hypothesis of no change over time is often accepted too easily. Lack of statistical power can be the result of small datasets, but can also arise when the length of the period studied is too short, or when the models are not parsimonious.

With respect to Hungary, the country we focus on in this article, earlier research on developments in social mobility has come up with quite different results. Some studies observed change, others did not. This article will investigate long-term developments in social mobility in Hungary with a design optimized to assess change in social mobility. This is accomplished by using information on as many individuals as possible, a historical period as long as possible (eighty years), and by employing parsimonious regression models to investigate historical developments in status attainment, and to associate these developments with the theoretically relevant events in Hungary's economic and political history. The previous research on developments in social mobility in Hungary, as discussed later on in this article, has employed smaller datasets, studied shorter periods, or has used more complicated models. We can hope that our analysis will settle the issue of whether Hungary's mobility regime has experienced trendless fluctuation or systematic change over time.

## Theory and hypotheses

First, we focus on the hypotheses that will guide our analysis. We aim to translate Hungary's economic development and political reforms into hypotheses on developments in the parameters of the status attainment process. We will focus on two pivotal aspects in the individual's socio-economic career: educational attainment and the status of the first job. We are interested in four effects of historical developments: the effects of fathers' educational attainment and fathers' occupational status on daughters' or sons' educational attainment, and the effects of fathers' occupational status and educational attainment on the status of daughters' or sons' first job status. Our choice for a Blau and Duncan (1967) type of status attainment model stems from the idea that models which focus on change in social mobility patterns should be as parsimonious as possible. The status attainment model has been criticized for its lack of sensitivity to the details of intergenerational status transmission. Its one-dimensionality prohibits a closer inspection of the social origins and destinations of specific classes, and therefore discrete approaches to the models of social mobility are often preferred. In the case of Hungary, the social destinations of individuals with bourgeois or blue-collar origins are particularly interesting. In this study, however, we opt for the simplicity and straightforwardness of the status attainment model. Declining effects of bourgeois origins on advantageous educational and occupational careers, and increasing effects of manual origins, will still be picked up by the parameters of the status attainment model, as these social classes differ strongly with regard to socio-economic status (Ganzeboom *et al.* 1992). If political and economic developments in Hungarian history, as outlined below, have affected the privileges of particular classes, this will necessarily show up in changing ascription and achievement effects. In other words, we use the status attainment model as a sensitive research tool to evaluate developments in the mobility regime of Hungary. More complicated mobility models, like the loglinear accounts of mobility tables (Erikson and Goldthorpe 1992) or transition models of educational careers (Mare 1981), may offer more insight into the detailed mechanisms of social mobility, but do not produce simple parameters of social change and obscure the overall picture.

The modernization thesis holds that ascription is weaker and achievement is stronger when a society is economically more developed (Treiman 1970). Family background effects on both educational and occupational attainment are smaller when the economy is technologically more advanced. Selection at school and selection in the labour market are no longer allowed to be inefficient. At school the most talented must reach the highest levels, whatever their social background. In the labour market

the most productive employees must be selected, and education has become the most important single indicator for employers to predict productivity. Education makes individuals more productive (human capital theory: Becker 1964), or provides an easy selection criterion for employers because employees with the highest levels of schooling will on average learn faster and training costs will be lower (screening theory: Arrow 1973). Hungary's economy grew steadily during the twentieth century, with a levelling off since the 1960s, so we expect that ascription effects have decreased over the period studied, just as achievement effects have increased. However, a closer look at Hungary's history will reveal that the pace of economic progress has not been stable over the whole period we are studying. Discontinuities and irregularities are very useful for our research because they provide a sharper test of the modernization thesis. When economic progress is slow or fast, the transition from ascription to achievement should be slow or fast as well. The same argument may be made for the political thesis. If politics matter, the many political events in Hungary's history must have meant that the development in social mobility has not been regular over the whole period.

In Table 1, we present a set of hypotheses about the expected changes in the effects of the status attainment model. We distinguish five periods in Hungarian twentieth-century history up until 1989, which comprise periods with a coherent political and economic climate:

- 1 The long-lasting Depression: 1910 to 1933;
- 2 The period around the Second World War: 1934 to 1948;
- 3 The long 1950s: 1949 to 1967;
- 4 Reform socialism: 1968 to 1982;
- 5 The decline of socialism: 1983 to 1989.

We follow up with a short description of these periods, and clarify the hypotheses presented in Table 1.

### **1910 to 1933: The long-lasting Depression**

Although the process of industrialization and transition to capitalism in Hungary started at the beginning of the twentieth century, the main feature of the early part of the twentieth century is the huge deficit in political, economic and cultural respects. Still more than half of the labour force worked in agriculture before the Second World War, even in the 1930s (Andorka 1990). The proportion of those who did not receive any education at all was 18 and 15 per cent of the population aged over 7 years in 1920, and the number of illiterates was larger still. Attendance of

**TABLE 1. Hypotheses on developments in ascription and achievement effects in selected periods of Hungary's history**

		<i>Historical period</i>				
		<i>Long-lasting depression</i> 1910–33	<i>World War II</i> 1934–48	<i>Long 1950s</i> 1948–67	<i>Reform of socialism</i> 1968–82	<i>Decline of socialism</i> 1983–89
<i>Modernization thesis</i>	Ascription	stable/increasing	decreasing	decreasing	stable/decreasing	stable
	Achievement	stable/decreasing	increasing	increasing	stable/increasing	stable
<i>Political thesis</i>	Ascription	stable	decreasing	decreasing	stable/decreasing	stable
	Achievement	stable	stable	increasing	stable/increasing	stable

secondary and tertiary education was sparse. The fact that after the First World War, due to the Trianon Peace Agreement of 1920, Hungary lost two-thirds of its previous territories (including Transylvania with its educational centres) and more than half of its previous population, added to the misery of Hungary. Because of these events, industrial and commercial development stagnated and transport connections were destroyed. The economic problems increased during the Great Depression in the early 1930s when agricultural and industrial production and employment in manufacturing declined. High unemployment, even among professionals, was then significant (Berend and Ránki 1974).

The modernization thesis predicts that if during the period of the long-lasting Depression any development in the status attainment process has occurred, it should be towards increasing social background effects and towards decreasing effects of schooling. Since no political change with regard to education or the labour market took place during this period, the political thesis predicts stability in the determinants of social mobility rather than change. Thus, in this period of Hungarian history we arrive at slightly different expectations from the two mobility theories: some change according to the modernization thesis, and no change according to the political thesis.

### **1934 to 1948: The period around the Second World War**

After the Great Depression, Hungary experienced an improvement in economic conditions, which even accelerated after 1939, when its industrial development was boosted by the economic preparations for war. This facilitated Hungary's return to the interrupted industrialization process. Although the Hungarian economy was in ruins by the end of the Second World War, the postwar reconstruction went surprisingly swiftly and smoothly in the field of industry, and a radical land reform was carried out as well. Several policy measures were taken with regard to social inequality and the educational system. Educational reforms were introduced with respect to primary education, which was first extended from four to six years and later, in 1940, to eight years. Landowners became legally responsible for ensuring primary education for children of peasants and a national fund was established to build schools in the countryside. In tertiary education, educational expansion was present as well and in 1947 the number of university students was twice as high compared to the pre-war era (Ladányi 1992).

The economic development was expected to produce decreasing family background effects both in the educational system and the labour market in the Second World War period, and increasing effects of schooling on



job status. Policy measures were directed to educational expansion only, and therefore the political thesis would predict a trend towards declining family background effects on educational attainment only, and stability in ascription and achievement effects on the labour market. Thus, for the Second World War period, we derive different expectations from the two theories, as we did for the period of long-lasting Depression. For the next three periods, we will no longer observe such differences between the two theories: political and economic changes go hand in hand, and it is not possible to formulate competing hypotheses on change in the parameters of status attainment.

### **1949 to 1967: The long 1950s**

The long 1950s started with the communist take-over in 1949. Coercive industrial measures made for declining employment in agriculture and increasing employment in industry. This rapid industrialization led to increased productivity but was at the expense of the agricultural sector and people's standard of living. The majority of economic investments went to industry, and other sectors were neglected. Because of the nationalization of mines, banks, manufactured products and other enterprises, the self-employed classes almost disappeared: their proportion went down to 3 per cent of the labour force (Andorka 1990). All the available workforce was used to build up the industrial sector, and this period was characterized by forced full employment, also for women. Educational expansion continued, and the communist government applied various 'affirmative measures' (numerus clausus rules) with the target of increasing the educational opportunities of the offspring of manual worker families with the explicit goal of demolishing the privileges of the bourgeoisie. The planning authorities regulated both the educational and the economic system in order to restrict free labour market processes (Andorka 1976: 49). The number of students was regulated to adjust to the requirements of the labour market. The 1956 revolution and its political aftermath lasted until the mid-1960s. Although the revolution of 1956 was an important political event in the long 1950s, it did not affect the main economic tendencies and the centralized planned economy model. The agricultural collectivization programme remained on the agenda and was completed in 1961 (Fazekas 1976). Though the era of the Kádár regime had already started after 1956, the economic and political liberalization was not to arrive for another decade.

According to the political thesis, especially in the long 1950s a trend from ascription to achievement may be expected. However, the modernization thesis also predicts such a trend, although to a somewhat smaller

degree. Economic productivity did increase in the long 1950s but political reforms were stronger.

### **1968 to 1982: Reform socialism**

In 1968, the start of the New Economic Mechanism was declared. The strategy of the planned economy of the 1950s resulted in cost-insensitive production and poor-quality goods. Market relations replaced elements of the planning system. The autonomy of the management of enterprises increased. A 'plan bargaining' regime replaced the central planning system, with positive results (Bauer 1978; Kornai 1980). In the 'golden age' of Kádárism the living standard of the Hungarian population became the highest among the state socialist societies. However, this increase in purchasing power of the population could only be maintained by financial loans from the West, legitimating the power of the Communist Party. The economic liberalization was accompanied by political liberalization. Numerus clausus rules were abolished and political discrimination diminished strongly. In the educational system, there was a slight shift towards less formalization and standardization, which weakened the link between the educational system and the labour market.

These developments mean that both the modernization thesis and the political thesis predict stabilization of the trend from ascription to achievement during the period of reform socialism. Policy measures against former privileges of the middle classes became less dominant. The goals of the New Economic Reform, the correction of economic failures of the latter part of the long 1950s were only partly reached and economic restructuring slowed down. Declining effects of family background and increasing effects of schooling may still be expected, but the pace should have slowed down when compared to the long 1950s.

### **1983 to 1989: The decline of socialism**

This period comprises the crisis of state socialism and the peaceful change to a market economy and a multi-party political system. At the beginning of the 1980s, the national debt per capita increased, and both the pace of economic development and the improvement of living conditions decelerated. The former dual (primary and secondary) economy (Gábor 1984) emerged into a dual society combining redistributive features and market elements (Kolosi 1988; Szelényi 1988; Hankiss 1990). By the end of the 1980s, the communists completely lost their legitimization and Kádár resigned in 1988. The political scene became so liberal that new

political parties could be established, and it was the Communist Party which made the decision to introduce a multi-party system. The Communist Party started negotiations with the opposition, and the round table discussions led to the establishment of a parliamentary multi-party system and to free elections in 1990.

In this period, no additional policy measures were taken with regard to educational selection. Credentialism, however, increased, since educational qualifications became a stronger criterion for the selection of leaders than mere party membership. In addition, a new form of labour market regulation should be mentioned: establishing new work partnerships (known in Hungary by the Hungarian acronym GMK) within the state companies. Members of GMKs remained employees of the state company but were active in moonlighting too, which means that they were doing the same work for more salary (cf. Burawoy and Lukács 1986). This dual status was to become beneficial for career mobility later on in the 1990s, but had no influence on the relationship between education and labour market entry.

Consequently, the political thesis predicts no further change in the determinants of educational and occupational attainment. The same holds for the modernization thesis because economic growth in this period was limited, and its pace declined further.

The hypotheses presented in Table 1 may be refined in two ways. The first refinement addresses hypotheses of the effects of cultural and economic family background characteristics, and the second one addresses different hypotheses for men and women.

### **Cultural and economic dimensions of family background**

Table 1 contains hypotheses about expected developments in the effects of ascription. However, following Blau and Duncan, there are three ascription effects to be considered (the effects of fathers' occupation on respondents' education, the effect of fathers' education on respondents' education, and the direct effect of fathers' occupation on respondents' job of entry). It has been argued that in the former communist countries only the advantages of the former economic elites decreased while the cultural elite lost fewer of their privileges (Ganzeboom *et al.* 1990). It is self-evident that the economic elite must have lost a substantial part of their privileges. Socialist policies have removed intergenerational transfer of means of production and self-employment, and education has become free of cost. Bourdieu (1973) argued for the case of France that cultural capital has replaced economic capital as the major mechanism that intervenes in the social positions of parents and children. In the same way, Konrád and

Szelényi (1979) hold that the communist revolution has worked out to be 'the final victory of the intellectuals'. Empirical evidence on Hungary indicates that financial inheritance was much more controlled by communist power than cultural inheritance (Róbert 1984), and cultural capital had an impact even on income (Böröcz and Southworth 1996). For status attainment this implies that the ascriptive link between fathers' education and children's outcomes may have decreased less than the ascriptive link between fathers' occupation and outcomes. This means that we expect that the hypotheses on changes in the effects of family background on children's outcomes will be supported more strongly with respect to the effects of fathers' occupational status than with respect to the effects of fathers' educational attainment.

### **Differences between men and women**

Will the hypotheses of the modernization and the political theory be different for men and women? In Hungary, as in most countries, gender differences in educational attainment have declined over time, but educational segregation has not weakened (Róbert 1991). In fact, communist policy has made the gender gap even sharper because members of the (male-dominated) manual worker class were better paid – for political reasons – than employees in (female-dominated) service sectors. This fact influenced both educational selection and occupational choices: men became even more over-represented in the vocational educational track and in skilled manual jobs than they already were before the long 1950s, while women became over-represented in academic secondary educational track and in clerical jobs (Róbert 1991). Analyses on labour market segmentation in Hungary indicated that for a large proportion of women in certain occupations, low salary and poor working conditions go together (Galasi and Sziráczi 1985).

We expect that the effects of fathers' education and fathers' occupation on educational attainment have started to decline later for women than for men due to the fact that educational expansion for women started later. Further, for women we expect a later decrease in the ascription effect on labour market entry than for men. We expect the same for the increase in the achievement effect, because the increase in the female labour force participation started only in 1950s.

### **Earlier findings on development in social mobility in Hungary**

Historical change of social mobility in Hungary has drawn the attention of many scholars in East and West, and there are two good reasons for

this interest. First, Hungary seems to be an excellent example of a society in which the effects of industrialization and political transformation on the status attainment process can be studied. Second, Hungary has a long tradition of collecting large datasets on social mobility. Here, we will present a short overview of earlier research on educational and occupational status attainment in Hungary.

We start our review with the observation that many scholars have focused primarily on the consequences of the communist take-over after 1949, especially on the consequences for the privileges of the bourgeoisie and middle classes in the educational system. Simkus (1981: 172) argued that in the period of socialist administration, rates and patterns of social mobility were controlled by the governing elites. In Hungary, therefore, social mobility should be more subject to policy changes than in Western nations (Parkin 1971). However, Simkus and Andorka (1982), who analysed the 1973 Hungarian Social Mobility Survey, reached the conclusion that surprised many, especially in the West. They found a gradual downward development in the effect of family background on educational attainment for cohorts who went through their educational careers between 1920 and 1970 without any 'political' disruptions. Inequalities appeared to decrease at the lower levels, but the effects of fathers' occupation on educational transitions at the higher levels turned out to be stable over time. Simkus and Andorka argued that the expansion of the educational system itself was directly associated with the political transformation. Educational expansion apparently increased the chances of working-class offspring to proceed to secondary and tertiary education, but at the same time there was no deterioration of the corresponding chances of middle-class children. These results have been reproduced in two other studies (Róbert 1991; Szelényi and Aschaffenburg 1993). In both studies smaller datasets ( $N = 8641$  and  $N = 24,829$ ) were used than in this article, which may be the reason that no deviations from a general trend were found.

With respect to the effects of educational attainment and family background on occupational status, there is a large body of empirical research to present as well. Simkus (1982) compared status attainment models from the East and the West and found the direct effect of schooling on occupational status to be stronger for socialist than for market societies and the effects of fathers' occupational status to be smaller. Kolosi *et al.* (1985) compared the status attainment regimes for men in Hungary and the Netherlands over time and arrived at comparable results. However, they did not find any developments in the effects of ascription and achievement for Hungary, employing data from the 1982 Stratification Model Survey ( $N = 5065$ ).

Despite the widely available data, hardly any other research has been

done on trends in status attainment in Hungary, but only on trends in (bivariate) intergenerational occupational mobility. Studies by Hungarians have focused on observed mobility rates only (Harcsa and Kulcsár 1986; Bukodi *et al.* 1994), but Wong and Hauser (1992), using the 1983 Social Mobility Survey, performed a loglinear cohort analysis to investigate period changes in intergenerational father–son and father–daughter mobility patterns in Hungary (N = 23,194). They found that the general association between fathers' occupation and sons' or daughters' first occupational positions has decreased for the older cohorts but that the decline has diminished for the youngest. They conclude that a process of restratification occurred after the communist revolution, but that in general the developments have been remarkably fluent. This conclusion is supported by the analysis of Ganzeboom *et al.* (1991), who employed all available published mobility tables between 1930 and 1989. Mobility responses to political action are only visible with regard to the restructuring of the labour market, especially agricultural collectivization process and forced industrialization (Andorka and Zagorski 1980).

### Data and measurement

In this article, we analyse a pooled dataset, constructed from four social mobility surveys. Three of them were collected by the Hungarian Central Statistical Office (KSH) and are distributed by the Social Research Center (TARKI): the *Social Mobility and Life History Surveys* from 1973, 1983 and 1992 (Andorka 1973; Kulcsár and Harcsa 1983; Harcsa 1992). The numbers of cases are 40,426, 32,301, and 29,006, respectively. The fourth (smaller) survey is the international comparative project *Social Stratification in Eastern Europe after 1989*, collected in 1993 (Szelényi and Treiman 1993) and has 4977 respondents. In all four surveys, respondents were interviewed using standardized questionnaires. The first three samples are stratified probability household samples: all individuals who were 14 years or older in the household were interviewed. The 1993 survey is based on a stratified probability sample of individuals and is representative of the Hungarian population over 18. In all four surveys respondents were asked detailed questions with respect to their educational and occupational careers. For the analyses presented in this article, we use information of persons who entered the labour market between ages 12 and 30. For the analyses in which educational attainment is the dependent variable, we further limited the sample to individuals aged 25 years or older at the moment of the survey, to make sure that the highly educated are not underrepresented in our analysis. These selections mean that the effects of family background on educational attainment may be estimated for a

sample of 30,967 men and 31,040 women. The effects of family background and schooling on occupational attainment will be estimated for a sample of 37,789 men and 37,454 women.

### Linking status attainment to historical periods

One crucial issue is to link the parameters of the status attainment model to the five historical periods we study. With respect to educational attainment, we assume that the most important transitions in educational careers take place when children are about 14 years old, and we therefore relate family background effects on years of schooling to the historical period in which the respondent became 14 years old. Since the measurement of educational attainment cannot be assessed before a respondent has reached age 25 years, and since the last survey we are using is from 1993, the final year we observe in our analysis of developments in the effects of social background on educational attainment is eleven years before 1993, which is 1982. This means that development in these effects cannot be investigated for the final period, the decline of socialism.

With respect to attained occupational status we look at the status of the first job and link the year the respondent entered the labour market to the five historical periods. We have three reasons to focus on the first job. First, both the effects of fathers' status and level of schooling may be assumed to be most important at the beginning of an occupational career. Second, when we look at first jobs we do not have to consider the effects of labour market experience, and thus we can compare the status attainment of men and women without having to model sex-specific labour market careers. Third and most important, entrance to the labour market can be linked without problems to historical periods. When the last or current job is used, it would be more complicated to tell which historical conditions have affected the occupational status attained, especially because career outcomes will often have been influenced by more than one period in Hungary's history. Our generous sample size allows us to estimate status attainment parameters on a year-by-year basis and thus reach annual precision in testing trends and – more importantly – discrete disruptions.

One important question to address is to what extent selective immigration and selective mortality will bias our findings about the development in the parameters of the status attainment model. To what extent do the mobility rates of the non-emigrated survivors of successive birth cohorts give a correct picture of changes in Hungary's mobility regime? Hungarian history includes two important episodes with respect to selective immigration. First, in the recession of the 1930s many Hungarian peasants left the country, often for the United States. Second, in the

period after 1949 a significant proportion of the population, especially those of bourgeois or intellectual origins, left the country. This second emigration wave accelerated after the 1956 uprising. Exact figures on the total number of emigrants are not available. Hungarian sources (Szántó 1970, 1984) estimate 300,000 emigrants after 1949, and the total number will be much higher.

It is far from straightforward how the selectiveness in the social origins of the non-emigrants in Hungary will bias the observed mobility rates of the cohorts involved. If occupational groups with a higher tendency to be socially immobile (e.g. peasants and the bourgeois) have a higher risk of being among the emigrants, this may lead to more observed mobility. However, when the socially mobile, like people with higher education, are over-represented, this will lead to less observed mobility. Another mechanism involved is that when a large and important occupational group is leaving the country, the non-emigrants have more mobility opportunities since there are empty places to be filled in the occupational distribution.

The Second World War saw many Hungarian victims who were clearly not a cross-section of the Hungarian population. Speculating again, we think that selective mortality for the older cohorts in general is more probable for those who were in lower status groups, had to work from a younger age, had to do hard manual work in agriculture or heavy industry, and may consequently have developed health problems. Again, it is not likely that observed mobility rates will be influenced by this selectivity, since this would occur only when mortality has to do with the combination of one's occupational origin and destination (e.g. when socially immobile peasants have higher mortality rates than socially mobile peasants).

## Measurement

Both fathers' occupation and respondents' first occupation were coded in the (detailed) Hungarian FEOR classification or in the ISCO classification (*Social Stratification in Eastern Europe after 1989*). The FEOR classification was recoded into the ISCO classification. Based on ISCO, both occupations were recoded into ISEI (International Socio-Economic Index, as constructed by Ganzeboom *et al.* 1992). Fathers' occupational position was measured retrospectively at respondents' age 14. Questions about first occupation were designed not to include temporary activities like part-time jobs or summer jobs of students, but to measure permanent employment only.

The educational level at the moment the respondent entered the labour market is coded into seven categories: (1) less than primary education,



(2) completed primary education, (3) post-primary vocational education without maturity (diploma), (4) secondary vocational education with maturity, (5) secondary academic with maturity, (6) tertiary education, lower level (college), (7) tertiary education, higher level (university). We recoded this educational classification into years of schooling needed to accomplish the highest educational qualification reached.<sup>1</sup> Fathers' education was coded into years of schooling as well.

## Models

In this section, we describe the applied methodology. For the development in the effects of social background variables on educational attainment and for the development in the effects of social background and educational attainment on entry status, we estimate three models (for men and women separately). These models are graphically represented in Figure 1 by the lines. For each year, we also present by dots the estimates for the effect of fathers' educational attainment and fathers' occupational status on educational attainment, and the effect of fathers' occupational status and educational attainment on occupational status.

First, we model a linear trend over the period 1910 to 1982 for educational attainment:

$$E = b_0 + b_1Y + b_2FE + b_3Y.FE + b_4FI + b_5Y.FI + e \quad (1a)$$

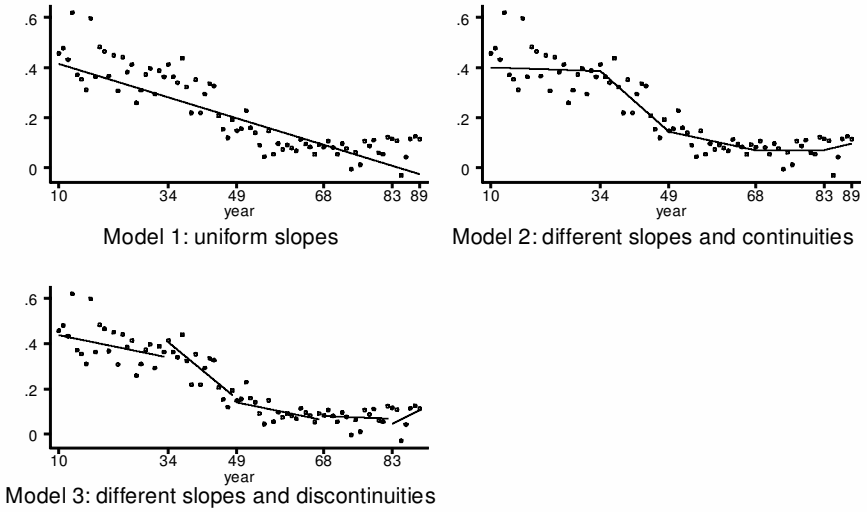
and a linear trend over the period 1910 to 1989 for occupational status:

$$I = b_0 + b_1Y + b_2FI + b_3Y.FI + b_4E + b_5Y.E + e \quad (1b)$$

where  $E$  = years of schooling of the respondent,  $FE$  = the years of schooling of the father,  $FI$  = the occupational status (ISEI) of the father,  $I$  = the occupational status (ISEI) of the respondent, and  $Y$  = year in which the respondent turned 14 or entered the labour market (1910 to 1989; coded as 0–79). The coefficients of the product terms indicate the way the effects of the independent variables change with year.

Model 1 shows whether the parameters of the status attainment process are subject to a secular trend. In Model 2, we assume the effects to be

1. The recoding of educational categories is done in the following way: 1 = 6 years, 2 = 8 years, 3 = 10 years, 4 = 12 years, 5 = 12 years, 6 = 15 years, 7 = 18 years. Additional analyses showed that the relationship between years of education and occupational status is linear, so we can be confident that the coding produces a properly ordered measure of educational qualifications.



**Figure 1.** Models considered for effects of social background on educational attainment and for effects of social background and educational attainment on entry status  
*Note:* Lines show modeled trends; dots represent the effects estimated on a yearly basis

directly dependent on the process of historical change in Hungary, as hypothesized in Table 1. We use *spline functions* as a device to model the change in the size of family background and schooling effects on educational and occupational attainment over time. The spline functions allow the effects to change gradually within a period having different slopes between periods (Smith 1979). At first, we assume continuity in the effects between the successive periods for educational attainment:

$$\begin{aligned}
 E = & b_0 + b_1Y + b_2FE + b_3Y.FE + b_4FI + b_5Y.FI \\
 & + b_6Y_{34} + b_7Y_{34}.FE + b_8Y_{34}.FI \\
 & + b_9Y_{49} + b_{10}Y_{49}.FE + b_{11}Y_{49}.FI \\
 & + b_{12}Y_{68} + b_{13}Y_{68}.FE + b_{14}Y_{68}.FI + e
 \end{aligned}
 \tag{2a}$$

and for occupational status:

$$\begin{aligned}
 I = & b_0 + b_1Y + b_2FI + b_3Y.FI + b_4E + b_5Y.E \\
 & + b_6Y_{34} + b_7Y_{34}.FI + b_8Y_{34}.E \\
 & + b_9 + Y_{49} + b_{10}Y_{49}.FI + b_{11}Y_{49}.E \\
 & + b_{12}Y_{68} + b_{13}Y_{68}.FI + b_{14}Y_{68}.E \\
 & + b_{15}Y_{83} + b_{16}Y_{83}.FI + b_{17}Y_{83}.E + e
 \end{aligned}
 \tag{2b}$$

where (in addition to the earlier defined variables)  $Y_{34}$  is scored 0 for those aged 14 years old/entering the labour market in 1934 or earlier and is

scored  $Y_{24}$  for those aged 14 years old/entering the labour market after 1934;  $Y_{49}$  is scored 0 for those aged 14 years old/entering the labour market in 1949 or earlier and is scored  $Y_{39}$  for those aged 14 years old/entering the labour market after 1949;  $Y_{68}$  is scored 0 for those aged 14 years old/entering the labour market in 1968 or earlier and is scored  $Y_{58}$  for those aged 14 years old/entering the labour market after 1968;  $Y_{83}$  is scored 0 for those entering the labour market in 1983 or earlier and is scored  $Y_{73}$  for those entering the labour market after 1983. The coefficients of the product terms indicate the way the effects of the independent variables change in each historical period.

In Model 2, we use continuous and not discontinuous splines assuming no discontinuities in the parameters of the status attainment model between historical periods. For each period we allow a separate slope, and these slopes are connected by knots. Since we distinguish four periods for the analysis of educational attainment and five periods for the analysis of occupational status, there are three and four knots in Model 2. By relaxing the restriction of knots, we allow for sudden changes in the parameters of the status attainment process. However, we hardly expect to observe articulate jumps in the mobility regime of Hungary, as Deng and Treiman (1997) observed them with respect to family background effects on educational attainment during the Chinese cultural revolution of the 1970s, when effects of social background virtually disappeared. It is hard to imagine that the communist take-over of 1949 in Hungary has influenced effects of family background on educational attainment in similar dramatic ways, because political measures in Hungary were less consistent. The equation for Model 3 for educational attainment reads:

$$\begin{aligned}
 E = & b_0 + b_1Y + b_2FE + b_3Y.FE + b_4FI + b_5Y.FI \\
 & + b_6D_{34} + b_7D_{34}.FE + b_8D_{34}.FI + b_9Y_{34} + b_{10}Y_{34}.FE + b_{11}Y_{34}.FI \\
 & + b_{12}D_{49} + b_{13}D_{49}.FE + b_{14}D_{49}.FI + b_{15}Y_{49} + b_{16}Y_{49}.FE + b_{17}Y_{49}.FI \\
 & + b_{18}D_{68} + b_{19}D_{68}.FE + b_{20}D_{68}.FI + b_{21}Y_{68} + b_{22}Y_{68}.FE + b_{23}Y_{68}.FI + e
 \end{aligned} \quad (3a)$$

and for occupational status:

$$\begin{aligned}
 I = & b_0 + b_1Y + b_2FI + b_3Y.FI + b_4E + b_5Y.E \\
 & + b_6D_{34} + b_7D_{34}.FI + b_8D_{34}.E + b_9Y_{34} + b_{10}Y_{34}.FI + b_{11}Y_{34}.E \\
 & + b_{12}D_{49} + b_{13}D_{49}.FI + b_{14}D_{49}.E + b_{15}Y_{49} + b_{16}Y_{49}.FI + b_{17}Y_{49}.E \\
 & + b_{18}D_{68} + b_{19}D_{68}.FI + b_{20}D_{68}.E + b_{21}Y_{68} + b_{22}Y_{68}.FI + b_{23}Y_{68}.E \\
 & + b_{24}D_{83} + b_{25}D_{83}.FI + b_{26}D_{83}.E + b_{27}Y_{83} + b_{28}Y_{83}.FI + b_{29}Y_{83}.E + e
 \end{aligned} \quad (3b)$$

where,  $D_{34}$  is scored 0 for those aged 14 years old/entering the labour market in 1934 or earlier and 1 for those aged 14 years old/entering the

labour market after 1934; analogously,  $D_{49}$ ,  $D_{68}$  and  $D_{83}$  are dummy variables distinguishing the period before and after 1949, 1968 and 1983.

To choose the best model, we will carry out several tests. First, we will evaluate whether there are discontinuities in the various effects. To test whether there are discontinuities in the effect of fathers' educational attainment on men's and women's educational attainment, we apply the following restriction to equation (3a):

$$b_7 = b_{13} = b_{19} = 0 \quad (4a)$$

Rejecting hypothesis (4a) leads to the conclusion that there are discontinuities with respect to the effect of fathers' education. Similarly, we can test for discontinuity in the effect of fathers' occupational status on men's and women's educational attainment by applying the following restriction to equation (3a):

$$b_8 = b_{14} = b_{20} = 0 \quad (4b)$$

Discontinuities in the effects of fathers' occupational status and educational attainment on men's and women's occupational status are tested by applying the following sets of restrictions to equation (3b):

$$b_7 = b_{13} = b_{19} = b_{25} = 0 \quad (4c)$$

$$b_8 = b_{14} = b_{20} = b_{26} = 0 \quad (4d)$$

Subsequently, only when a restriction holds will we investigate further whether Model 1 can be preferred above Model 2: equal slopes for all periods. This can be tested by applying the restrictions (5a) and (5b) on equation (2a) and restrictions (5c) and (5d) on equation (2b):

$$b_7 = b_{10} = b_{13} = 0 \quad (5a)$$

$$b_8 = b_{11} = b_{14} = 0 \quad (5b)$$

$$b_7 = b_{10} = b_{13} = b_{16} = 0 \quad (5c)$$

$$b_8 = b_{11} = b_{14} = b_{17} = 0 \quad (5d)$$

## Results

Table 2 presents the F-tests relevant to the selection of the preferred model of developments in the parameters of status attainment. Developments in four effects are to be modelled both for men and for women. For

the effect of fathers' education on men's educational position, Model 2 (different slopes without discontinuities) is a significant improvement over Model 1 (one overall slope). Model 3 (allowing discontinuities) does not improve on Model 2 significantly, which makes on Model 2 the preferred model for the developments in the effect of fathers' education on men's educational position. For women, however, Model 3 is the preferred model: some discontinuities occur. Further modelling shows that there is one significant continuity, which occurs between the long-lasting Depression period and the Second World War period (1933 to 1934). For the effect of fathers' occupation on men's and women's educational attainment, Model 1 is the best fitting model; one slope over all periods models the developments in this effect adequately over a period of more than seventy years.

Model 2 is the preferred model for the historical developments in the effect of fathers' occupation on occupational attainment, both for men and for women. Apparently the pace of development in this ascription effect has not been the same in all historical periods, but there have not been any discontinuities. Discontinuities may be observed, however, and both for men and for women, with respect to the effect of educational attainment on occupational achievement. Further modelling shows that both for men and for women there have been two discontinuities in this ascription effect. For men there have been discontinuities between the long-lasting Depression and the Second World War period (1933 to 1934) and between the Second World War period and the long 1950s (1948 to 1949). For women, there were additional discontinuities between the Second World War period and the long 1950s (1948 to 1949), and between the long 1950s and the period of reform socialism (1967 to 1968).

The F-tests produced in Table 2 provide an important insight into the (dis)continuities of the ascription and achievement effects on educational attainment and status attainment in Hungary in the period 1910 to 1989. We will now look more closely at the character of these changes. The question to be answered is whether these changes imply the expected increases and decreases in the effects of the status attainment model.<sup>2</sup>

### **The effects of social background on educational attainment**

First, we focus on the effect of fathers' educational attainment and occupational status on educational attainment. These effects may be labelled respectively as the cultural component (fathers' education) and

2. We also tested models with quadratic splines (with and without discontinuities). These models did not improve on the found results.

**TABLE 2. F-tests between models of continuities and discontinuities in ascription and achievement effects in Hungary**

	<i>Different slopes?</i> (2 vs. 1)	<i>Discontinuities?</i> (3 vs. 2)	<i>Preferred Model</i>
<i>Men</i>			
Effect of fathers' education on education	7.08*	1.09	2
Effect of fathers' occupation on education	2.23	2.47	1
Effect of fathers' occupation on occupation	31.72*	2.07	2
Effect of education on occupation	21.73*	4.40*	3 <sup>a</sup>
<i>Women</i>			
Effect of fathers' education on education	10.74*	4.05*	3 <sup>b</sup>
Effect of fathers' occupation on education	0.03	2.17	1
Effect of fathers' occupation on occupation	7.31*	1.95	2
Effect of education on occupation	51.03*	4.77*	3 <sup>c</sup>

*Notes*

<sup>a</sup> When testing for no discontinuities in 1967–68, and 1982–83  $F = 1.44$  and non significant

<sup>b</sup> When testing for no discontinuities in 1948–1949, 1967–1968, and 1982–1983  $F = 1.44$  and non significant

<sup>c</sup> When testing for no discontinuities in 1933–1934 and 1982–1983  $F = 1.21$  and non significant

the economic component (fathers' occupation) of social background effects. Estimates for these effects on educational attainment are displayed in the upper two panels of Table 3, separately for men and women. For all ascription (and achievement) effects in this table, we present the effect (regression coefficient) for the given explanatory variable at the start of the first period (long-lasting Depression). These effects may be found in the upper cells of columns 2 and 4. In columns 3 and 5, we present the slope (linear change per year) in the regression coefficient during the specific period. If Model 1 (one overall slope) holds, we present this slope as 'continuity' in columns 3 and 5. When Model 2 holds (different slopes, no discontinuities), we present the change in the slope relative to the prior period. The significance level shows whether or not this change is significant at the 5 per cent level. If there are also discontinuities between the periods (Model 3 holds), columns 2 and 4 present the size of the upward or downward shifts (and their significance) between the end of the prior period and the beginning of the current period. If Model 3 holds, columns 3 and 5 again show the slopes and their significance levels relative to the slope in the prior period.

**TABLE 3. Developments in ascription and achievement effects in Hungary**

	Men		Women	
	<i>Discontinuity in slope at start of period<sup>a</sup></i>	<i>Linear change in slope during period</i>	<i>Discontinuity in slope at start of period<sup>a</sup></i>	<i>Linear change in slope during period</i>
<i>Fathers' education on education</i>				
Long-lasting Depression (1910–33)	.4540*	-.0078*	.2111*	.0036
World War II (1934–48) vs. long-lasting Depression	continuity	.0141*	-.1719*	.0115*
Long 1950s (1949–67) vs. WW II	continuity	-.0146*	-.0171	-.0207*
Reform socialism (1968–82) vs. 1950s	continuity	.0179*	.0104	.0054
<i>Fathers' occupation on education</i>				
Long-lasting Depression (1910–33)	.0863*	-.0010*	.0469*	-.0002*
World War II (1934–48) vs. long-lasting Depression	continuity	continuity	continuity	continuity
Long 1950s (1949–67) vs. WW II	continuity	continuity	continuity	continuity
Reform Socialism (1968–82) vs. 1950s	continuity	continuity	continuity	continuity
<i>Fathers' occupation on occupation</i>				
Long-lasting Depression (1910–33)	.4006*	-.0006	.4230*	.0010
World War II (1934–48) vs. long-lasting Depression	continuity	-.0155*	continuity	-.0131*
Long 1950s (1949–67) vs. WW II	continuity	.0122*	continuity	.0047*
Reform Socialism (1968–82) vs. 1950s	continuity	.0040*	continuity	.0032
Decline (1983–1989) vs. Reform	continuity	.0042	continuity	.0015
<i>Education on occupation</i>				
Long-lasting Depression (1910–33)	2.4215*	.0215	1.1863*	.0498*
World War II (1934–48) vs. long-lasting Depression	.4460*	-.0368*	-.0145	.0230
Long 1950s (1949–67) vs. WW II	.4785*	.0249	.3388	-.0573*
Reform Socialism (1968–82) vs. 1950s	-.0512	-.0360*	-.2987*	-.0362*
Decline (1983–1989) vs. Reform	.0921	.0223	.3577	-.0707

<sup>a</sup> for long-lasting Depression period, estimated effect in 1910

\* sign at 5%

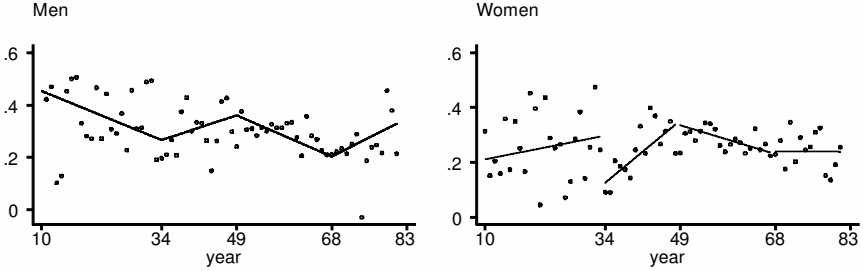
For men, the preferred model of the development in the effect of fathers' education on educational attainment is Model 2: different slopes in the historical periods without discontinuities. Figure 2 displays the slopes in this effect. The effect decreased in the long-lasting Depression period, increased in the Second World War period, decreased again in the long 1950s, and increased in the reform socialist period. There are no significant discontinuities between these periods, but in each period the direction of the development of the effect changes significantly. The decline in the long-lasting Depression period is in line with the hypotheses. As a consequence of educational expansion and political measures taken to increase the general level of education in Hungary and as a consequence of support for the offspring of poor families, reproduction of educational inequalities became smaller during this period. The unexpected increase in the effect of fathers' education for the Second World War period is surprising. This is possibly a consequence of the *numerus clausus* in the educational system that has become more effective in Hungary in this period. The aim of the *numerus clausus* was to balance the well-known 'overeducation' of the offspring of Jewish families in Hungary (Karády 1995). But, as Karády (1993) notes, the decline in this overeducation was stronger for the offspring of less educated families (crafts- and tradesmen) who were able to educate their children to a lesser degree. Children of more educated Jewish families had relatively better chances of a higher level of schooling, even under the conditions of the *numerus clausus*.

For the long 1950s, we can observe a strong decline of .0083 per year<sup>3</sup> in the effect of fathers' education on men's educational attainment. This may be interpreted as an outcome of the socialist educational policy, which aimed to support the offspring of manual worker classes and introduced yet another *numerus clausus* system into education for disfavoured the offspring of bourgeoisie families. This trend is followed by an increase again in the reform socialist period when market elements were introduced into Hungary, and policy measures in education favouring children of low-status families weakened. Apparently, the cultural dimension of family background, as indicated by fathers' level of schooling, could now compensate some of the experienced disadvantages during the long 1950s.

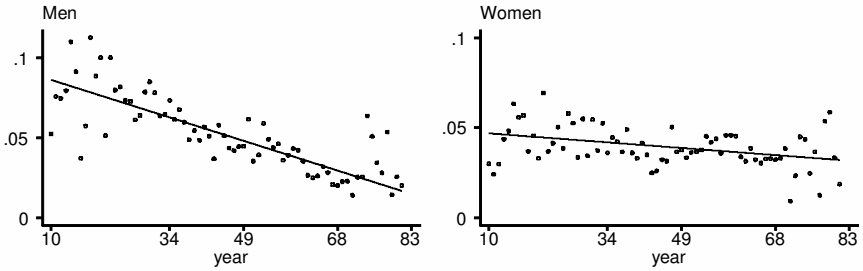
The preferred model for the effect of fathers' occupation on men's educational attainment is the model of one overall slope (Figure 3). The effect of fathers' occupation has decreased over the whole period between 1910

3. This decrease may be calculated by adding the linear changes in the slopes for the Depression, the Second World War and the long 1950s period:  $-.0078 + .0141 - .0146 = -.0083$ . See also Figure 1 for the depiction of the effect of fathers' education on educational attainment.





**Figure 2.** Effect of Fathers' Education on Education  
*Note:* Lines show modeled trends; dots represent the effects estimated on a yearly basis



**Figure 3.** Effect of Fathers' Isei on Education  
*Note:* Lines show modeled trends; dots represent the effects estimated on a yearly basis

and 1982 with  $-.0010$  per year. This trend implies that fathers' occupation has lost more than 80 per cent of its impact on sons' educational career: it decreased from  $.0863$  in 1910 to  $.0143$  in 1982.

Turning to women's educational attainment, we observe a clear-cut discontinuity in the change of the impact of fathers' education (Model 3 was the preferred model in this case). Contrary to the hypothesis, for women, the effect of fathers' education on educational attainment was stable during the long-lasting Depression period, and increased during the Second World War period (as for men, with a strong discontinuity between these two periods (Figure 2)). In the long 1950s, when women experience a strong educational expansion and when the difference between the educational levels of men and women starts to decrease, we observe the expected decline of the effect of fathers' education on women's educational attainment. This trend then levels off in the reform socialist period.

The development in the effect of fathers' occupation on women's educational attainment shows, as for men, a straightforward linear decline. However, this decline is much steeper for men than for women, as displayed in Figure 3. Our findings suggest that the decrease in the impact

of the economic dimension of family background has been insensitive to varying political and economic conditions between 1910 and 1982, whereas the effects of the cultural dimension have been more sensitive to societal change. Although our extended window exposed the decline in the effect of economic family background more sharply than previous research, this finding was not unexpected. The effect of cultural background on intergenerational transmission of social inequalities is stronger under socialism in Hungary as compared to the influence of material background.

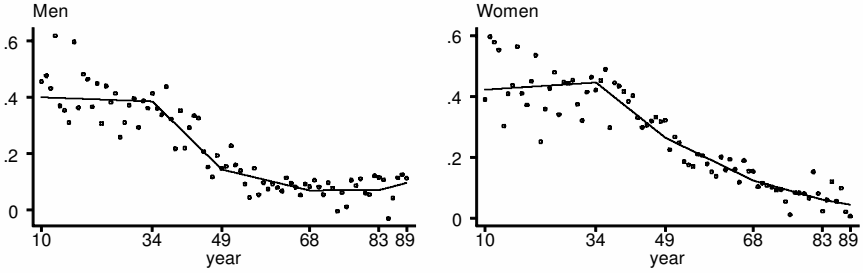
### **The effects of social background and educational attainment on first occupation**

Next, we investigate the change of ascription (effect of fathers' occupation) and achievement (effect of educational attainment) on status attainment. Estimates for these effects on entry into first occupation are displayed in the lower two panels of Table 3, separately for men and for women. The preferred models are displayed graphically in Figures 4 and 5.

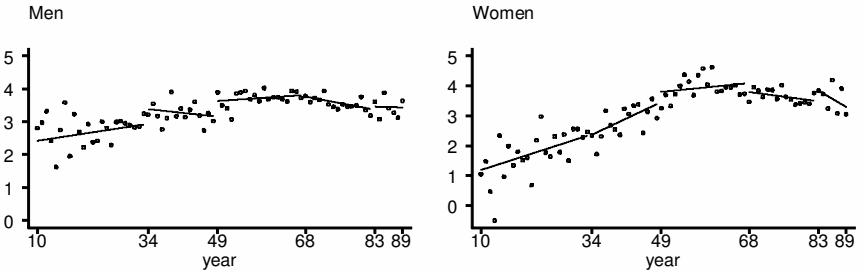
For men, the preferred model for the effect of fathers' occupation on first job status is the model of different slopes without discontinuities. The parameters of this model, and Table 3, show that there has been no (significant) trend in the effect of fathers' occupation on first job during the long-lasting Depression period. The decline has been particularly strong during the Second World War period (.0161 decrease per year).<sup>4</sup> In contrast with our expectation, the long 1950s contributed considerably less to the decrease in this ascription effect (.0039 per year). Altogether, the pre-communist period of the Second World War had a stronger impact on the decline of intergenerational reproduction than the forced industrialization and the political measures after the communist take-over in Hungary. In the reform socialist and the decline of socialism periods the effect of fathers' occupation on men's first occupation stabilized at a very low level. In the 1980s, the ascription effect is only one-quarter of the effect in the 1920s and 1930s.

For men, the preferred model of historical developments in the effect of educational attainment on first job status (Model 3) showed two discontinuities, between long-lasting Depression and the Second World War, and between the Second World War and the long 1950s. The effect of educational attainment on first job has been stable during the long-lasting Depression period. Between the long-lasting Depression period

<sup>4</sup>  $-.0006 - .0155 = -.0161$



**Figure 4.** Effect of Fathers' IseI on Education  
*Note:* Lines show modeled trends; dots represent the effects estimated on a yearly basis



**Figure 5.** Effect of Education on IseI  
*Note:* Lines show modeled trends; dots represent the effects estimated on a yearly basis

and the Second World War period, there is a significant upward discontinuity in the effect of education on first job, but during the Second World War period this effect is stable again.<sup>5</sup> With the beginning of the long 1950s there is a significant upward discontinuity again, but during this period the effect of schooling does not change much. During the reform socialist period when the market elements started to increase in Hungary, we observe a small but significant drop in the achievement effect (-.0360 per year), which we expected. The explanation for this development is quite complex. On the one hand, increasing market elements in a socialist society ought to bring an increase in the returns to educational investments. This would mean an increase in the effect of education on first occupation, but this was not the case in Hungary. The Hungarian economy in the long 1950s was dominated by formal regulations derived from five-year plans. This system strongly determined the transition from school to work and resulted in a wide correlation between education and first occupation. This system of planned economy weakened during the reform socialist period and resulted in a

<sup>5</sup> .0215 - .0368 = -.0153

decrease in the association between education and first occupation. After this era, there is no further significant change in the effect of education on first occupation in the decline of socialism period. Thus, for men, the developments in the ascription and the achievement effects seem to mirror each other, but the decrease of ascription was more marked and continuous, while the increase of achievement was less strong and marked by some discontinuities.

Turning to women's status attainment, we observe a development in the ascription effect that is very similar to the development for men. The effect of fathers' occupation on first occupation is more or less stable during the long-lasting Depression period, but this is followed by a sharp and significant decline during the Second World War period. For women too, the Second World War period has affected occupational inheritance more than the political changes after 1949. The decline in the effect of fathers' occupation continues in the subsequent periods, but changes from one period to another are not significant.

The increase in the achievement effect is more pronounced for women than for men. Surprisingly, the increase in the effect of education on first occupation is the steepest for the long-lasting Depression and the Second World War period, whereas the increase in the achievement effect during the long 1950s is very moderate.<sup>6</sup> To understand this development, one has to consider that women's participation in the labour force increased greatly in the long 1950s period in Hungary. This was the time when forced industrialization induced a huge demand for labourers. Before the long 1950s a limited number of women were employed, and their occupational chances were more dependent on their level of schooling. In the long 1950s, an increasing proportion of women was forced to enter the labour market and their occupations were much more dependent on the economic needs of the country than on their own qualifications. There is a small but significant discontinuity between the long 1950s and the reform socialist period. During this latter period the development in the achievement effect becomes negative ( $-.0207$  per year). A possible explanation for this changing development has been given above when the same tendency was observed for men: state interference with the transition from school to work weakened. For the decline of socialism period, there have been no further developments in the effect of educational attainment on women's first occupation. The mirror effect of ascription and achievement is stronger for women than for men. The pattern, however, is the same: the decrease of ascription was more continuous, while the increase of achievement was more discontinuous between 1910 and 1989 in Hungary.

<sup>6</sup>  $.0498 + .0230 - .0573 = .0155$

## Conclusions

In this article, we have investigated long-term trends in the process of status attainment in Hungary during the twentieth century. We have chosen simple models to summarize developments in social mobility. This decision is based on the argument that more complex models will not reveal basic trends in educational attainment and in status attainment. Our variables are straightforward measures of educational attainment and entry job status. Our few degrees of freedom models have been developed to study the long-term historical changes in Hungary. Our main concern was to display continuities and discontinuities in the Hungarian status attainment process. At the same time, we intended to take into consideration that there have been many aspects of social change in the Hungarian economic and political system during the twentieth century. In order to investigate change in status transmission between generations, we distinguished five historical periods in Hungary's twentieth-century history. This period approach and the application of *spline functions* of historical change allowed us to reveal the main character of the long-term process of status attainment in Hungary.

The main research question addressed in the study was whether developments in status attainment in Hungary are governed by *trendless fluctuation* or by *systematic trends*. We found clear evidence that the changes, which took place in the economic and political system in Hungary, have been linked with systematic changes in the determinants of social mobility. Based on our spline models, we observe that developments in the effects of social background on first occupation have been gradual, and that there have been few significant discontinuities between the five distinguished periods. Altogether, the historical change revealed by our spline models is closer to a trend from ascription to achievement than to a trendless fluctuation. This does not mean that there has been one overall trend in the parameters of status transmission – in different periods social change has gone with different momentum.

The modernization thesis and the political thesis have been used as the major theoretical framework for the interpretation of findings. It has proved hard to answer the question whether changes in status attainment in Hungary are the outcomes of merely the economic or of severe political measures, which aimed to weaken the intergenerational reproduction of inequalities and to strengthen the opportunities of the offspring of manual worker classes. Political changes have prompted industrial restructuring and economic development. Consequently, these two theories do not compete too much when they are applied to Hungarian history. An alternative way of looking at this problem is offered by the argument that

the combination of the two theories is needed to understand the long-term tendencies in social mobility in Hungary.

Although in general we cannot draw conclusions in favour of one of the two mobility theses, we have observed a strong secular trend in the effect of fathers' occupational status on children's educational attainment. This secular downward trend offers a strong confirmation of the modernization hypothesis. However, we expected the developments in the effects of social background on educational attainment to be more complex, as we found in the effects of fathers' education. We thus find strong support for the idea that the cultural dimension of ascription has been due much more to social change than the economic dimension. The spline model applied for the statistical analysis sharply revealed this difference between cultural and economic background, which of course could be expected on the basis of previous research on intergenerational transmission of social inequalities in Hungary.

As far as occupational status attainment is concerned, our results provide stronger support for the decrease of ascription than for the increase of achievement. The decrease of the effect of fathers' occupation on men's and women's first occupation is not completely linear but there are no significant discontinuities between the historical periods. Our insight that the decrease in the effect of fathers' occupation in Hungary decreased to a large extent immediately after the long-lasting Depression period and remained particularly strong in the Second World War period is new. The communist take-over cannot be considered as an important break in the developments of declining ascriptive criteria for social mobility in Hungary. There are more discontinuities in the impact of education on first occupation. Some increase in the effect of achievement had already begun in the long-lasting Depression period and was present in the Second World War period as well. In fact, as the discontinuities between the historical periods show, achievement criteria for social mobility did not increase so much after the communist take-over in Hungary, neither for men nor for women.

Since all analyses were run separately for men and women, it is worth highlighting the gender differences we found. With respect to educational attainment, women seemed to have benefited less from the social policy measures introduced before the Second World War than men. The large downward discontinuity that took place between the long-lasting Depression period and the Second World War period for the effect of fathers' education on women's education needs further research. On the other hand, the secular change towards the decline in the effect of fathers' occupation on education is much steeper for men than for women. With respect to status attainment in the first job, both the decrease in the effect of fathers' occupation and the increase in the effect of education on first

occupation are more distinct for women than for men. We can observe a stronger shift from ascription to achievement for women than for men. For men, a slight return in this trend can be observed, and this is not the case for women.

Although this article has focused on developments in one country only, it is worth discussing some interesting challenges to the validity of our results. Three comparative studies on social mobility are important here. First, the comparative research within the 'CASMIN project' (Erikson and Goldthorpe 1992) has found a relatively large variation of social fluidity among industrial nations, but has found little systematic variation between countries. This would suggest that economic development or political conditions do not matter much for the basic pattern of social mobility. Second, Treiman and Yip (1979) found more trends in the changes of status allocation and more similarity in educational and occupational attainment. Differences in methodological approaches and selection of statistical models may partly explain the contradiction in the findings of these two comparative studies. We believe that our approach, which was closer to the one by Treiman and Yip, will help researchers to discover basic trends in mobility regimes. Third, there is comparative research by Széleányi and Treiman (1993) on six post-communist nations. Although relevant differences appear among such countries like Bulgaria, the Czech Republic, Hungary, Poland, Russia and Slovakia, we believe that the industrialization thesis and the political thesis serve as appropriate mechanisms in all of these countries for understanding long-term processes of status attainment.

Our review of the existing literature about mobility processes in Hungary with special focus on labour force entry emphasized that previous studies – even if applying a cohort approach – did not perform an in-depth analysis taking into consideration the varying historical periods in Hungary in an explicit way. Our analysis shows that the period approach combined with the application of spline models is an appropriate way to investigate the process of status attainment from a historical perspective, and is an important step towards a better understanding of the changing patterns of mobility processes in Hungary. It would be very interesting to apply our research design to more refined models of educational and occupational mobility, as offered by transition models of educational careers and by discrete analysis of occupational inheritance. Combining these more refined models with a period approach and the spline models will offer more insight into the explanatory forces behind developments in social mobility.

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