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UNEQUAL EDUCATIONAL TRANSITIONS IN ESTONIA:
TRACKING AND FAMILY BACKGROUND

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Introduction

One of the most debated questions in recent research in social stratification concerns whether inequalities in educational attainment according to social background have changed or remained more or less stable. The main conclusion of a comparative study on the inequality of educational opportunities (Blossfeld and Shavit, 1993) suggests class inequalities continue to exist in education in the majority of the studied countries. However, in recent years this conclusion has been questioned for an increasing number of countries (see for example Vallet, 2004; Barone, 2009; Breen, 2010). In their comparative analysis of eight European nations, Breen et al. (2009) provide evidence of an overall decline in inequalities in educational opportunities, with two exceptions: Italy and Ireland. For most former communist countries a pattern of persistent inequality during the socialist period is well-documented (Heyns and Bilaecki, 1993; Matějů, 1993; Gerber and Hout, 1995; Nieuwbeerta and Rijken, 1996; Hanley and McKeever, 1997; Wong 1998), despite brief periods when the effects of social origins on educational attainments were temporarily reduced. As for the change in educational inequality during the post-communist transformation, all the available analyses in various countries lead to the hypothesis that class differentials in educational attainments and educational transitions increased after 1989 (Gerber, 2000; Matějů et al., 2003; Bukodi and Goldthorpe, 2010; Wu, 2010). Overall, current empirical evidence points to declining inequalities in Nordic countries, increased inequalities in post-communist countries and mixed results (decreasing or stable) for Anglo-Saxon and continental European countries (see Barone, 2009).

A comparison of two educational cohorts (both with a minimum of secondary education) in socialist Estonia indicates that universal secondary education actually increased the impact of social origin on the educational level of young people. However, as Helemäe et al., (2000) argue easier access to secondary education was concomitant with an increase unequal access at the higher education level. Analyses also show that during the post-communist period social fluidity in Estonian society decreased (Saar, 2010). Decreasing social fluidity across cohorts in Estonia has been driven by changes in educational inequality. The impact of social origin on education increased particularly during the transition period when market mechanisms came into effect.

Analysing educational attainment as a process of completing a sequence of transitions is well established[1] (Boudon, 1974). Mare (1981) popularized the model of educational

transitions, which has been widely used in studies of educational inequality. This model enables researchers to acknowledge that social origin may have various impacts during different transitions through the costs, benefits and the probability of success (Breen and Goldthorpe, 1997). However, the sequential model does not take into account that most European education systems are tracked by treating as stratified only in-school origins but not in-school destinations (Breen and Jonsson, 2000; Lucas, 2001). These tracks are qualitatively different and their graduates have a range of probabilities of continuing in education (see Gamoran and Mare, 1989; Ayalon and Shavit, 2004; Tieben et al., 2010). The choice between the tracks may have a distinctive social origin pattern. As Breen et al. (2009: 1515) indicate '…if these differences (*choice of particular field of education or track*) have become stronger as inequalities in level of education have declined, then a focus solely on educational level will overestimate the extent to which inequalities have declined'.

In most former communist countries there have beenclear hierarchical tracks in secondary education. Research on long-term trends of social stratification in the structurally tracked education systems in these countries is scant, and most concentrate on the socialist period (see Gerber and Hout, 1995; Titma and Saar, 1995; Zhou et al., 1998). This paper pays special attention to the post-communist period and improves upon previous studies of educational inequality in former socialist countries by incorporating a long-term perspective into tracking research. In Estonia the school system has been divided into three different tracks at the secondary level. There have been sharp shifts in educational policies in Estonia over time, which may cause fluctuations in educational inequalities. Several features of the Estonian transformation process make this country particularly interesting for studying changes in educational inequalities. First, Estonia is often cited as an example of the rapid implementation of a highly liberal economic policy and the modest role of the state (Bohle and Greskovits, 2007), which has Milanovic (1999) argues, are accompanied by an increased level of social inequality. Secondly, in the 1990s, liberalization of educational policy translated into the very rapid expansion, as well as privatization, of higher education.

Our aim is to analyse the relationship between class origin and educational transitions over time in Estonia on the basis of separating the different secondary school tracks and concentrating on two basic transition points in the Estonian education system: (a) basic education to secondary education and (b) secondary education to higher education. As

mentioned above, previous analysis indicates that educational inequalities have increased in Estonia in the 1990s but this analysis did not show *at which transition points* inequalities have increased. We focus on the impact of educational expansion on educational inequalities as well as the role of broader political processes in opportunity structures. Theoretically, the analysis is guided by debates about maximally maintained inequality (MMI) and effectively maintained inequality (EMI) hypotheses.

Theoretical background

Educational expansion and trends in educational inequality
Raftery and Hout (1993) postulated the thesis of *maximally maintained inequality* in education. It suggests that educational expansion increases lower class participation only at lower educational levels where the enrollment of higher social classes is already so high that further expansion allows disadvantaged groups to benefit. Therefore, the chances of low-status groups can only increase when the demand for a given level of education is saturated among the children of the better-off. This means that educational expansion does not reduce but postpones class selection to higher educational levels. Several studies have corroborated MMI by reporting either stable inequality over time or equalization following saturation (see for example Shavit and Blossfeld, 1993; Hanley, 2001).

However, studying the impact of educational expansion on social fluidity, Breen (2010) found that in Germany and Sweden expansion and educational equalization reinforce each other, but in Britain expansion occurred with little or no change in educational equality. Breen (2010) also suggested that if the beneficiaries of expansion are mainly young people from the higher classes, educational expansion can promote educational inequality. Thus broader political processes my shape the impact of educational expansion on opportunity structure.

Lucas (2001) proposed a revision of the maximally maintained inequality hypothesis, which he called *effectively maintained inequality*, arguing that once the level of schooling becomes nearly universal social background will allocate students to different types (tracks) of education that have different implications for educational attainment. He hypothesized that 'the socioeconomically advantaged will use their socioeconomic advantages to secure both

quantitatively and qualitatively better outcomes' (Lucas, 2001: 1652). Educational expansion can increase the educational opportunities for children from lower classes while at the same time their admission to the élite institutions remains restricted (Shavit et al., 2007). Thus, social inequality at the intermediate level decreases over time but higher classes preserve their advantage at the higher educational levels.

The above theories, though very often based on a country-specific situation or data analysis, were striving for general validity. However, it is questionable whether these theories could explain educational inequality in socialist and post-socialist countries,because socialist systems were governed by different *types of mechanisms* and very specific *systems of relationships*, created and maintained by the authoritarian regime and its specific policies (see also Hanley and McKeever, 1997; Zhou et al., 1998; Matějů et al., 2003).

The hypothesis of *socialist transformation* assumes that at the beginning of the socialist regimes in Eastern Europe origin-based educational inequalities (especially at lower levels) decreased as a result of the socialist reforms of the educational systems and policies (particularly the implementation of the so-called quota system). However, as soon as the new élite secured privileges for themselves and took control of the educational system, they ensured educational advantages for their own children. For this reason, in the later years of the socialist regimes, the effect of social origin grew to pre-socialist level (see e.g. Matějů, 1993; Hanley, 2001).

The theory of *trajectory maintenance* refers to efforts by social groups to maintain or improve their social status across generations (Hanley and McKeever, 1997). Members of the pre-communist élites (bureaucracy and professionals) were able to pass privileges to their children even under the new regime. They achieved this aim primarily by making use of their social and cultural capital (Wong, 1998). As a result, educational inequalities did not decline. Gerber and Hout (1995), studying educational inequalities in Russia, found that the strictly controlled growth of opportunities in secondary and post-secondary education led to enormous pressure for entry into both secondary schools and universities. Thus, mainly owing to the excess demand and enormous competition, and despite the strong political control over the selection process, class differentials in the odds of attaining post-secondary education did not change through three post-war cohorts.

The above analyses of educational inequalities under socialism did not cover the

market transition era, when the institutional mechanisms of distributing educational resources were undergoing a dramatic shift. The speed, scope and outcomes of post-socialist transformation differed substantially between countries (Heyns, 2005). Thus, it is very difficult, or even impossible, to formulate universal hypotheses about changes in educational inequality in the former socialistcountries. Trends may depend on a number of factors, including the general level of social inequality, welfare state expenditures, the speed of educational expansion, and privatization and marketization of education. However, most previous studies seem to indicate the increased educational inequalities, but the intensity of this growth has been different (Gerber, 2000; Bukodi and Goldthorpe, 2010; Wu, 2010).

The Estonian case

Structure of educational system

During the socialist period, the Estonian educational system was a part of the Soviet educational system, which was constructed as an integral part of the party-state institutional structure and organised on the basis of the following main principles: centralisation, standardisation, utilitarian and egalitarian goals (Titma, 1993).

The standard course of instruction began at the age of 7 and lasted for 11 years (see Figure 1). After graduation at basic school, students were tracked into one of three types of secondary education: (i) general secondary schools (the traditional academic track), which provided a university preparatory curriculum; (ii) vocational schools, which trained skilled workers for industry and other branches of the economy, and (iii) specialised secondary schools, which combined vocational training with academic subjects and was originally intended to educate semi-professionals. Students did not have any opportunity to transfer between tracks, although their future prospects and the returns to education relating to these tracks were very different (Saar, 1997). The vocational track was dominated by negative selection because those who had been denied admission to other educational tracks usually went on to vocational schools (Titma and Saar, 1995). Vocational schools and to a lesser extent specialised secondary schools were oriented to young people of a lower social status. After graduation from vocational and specialised secondary schools, youths were assigned to a particular job, where they had to work at least three years (see also Gerber, 2000).
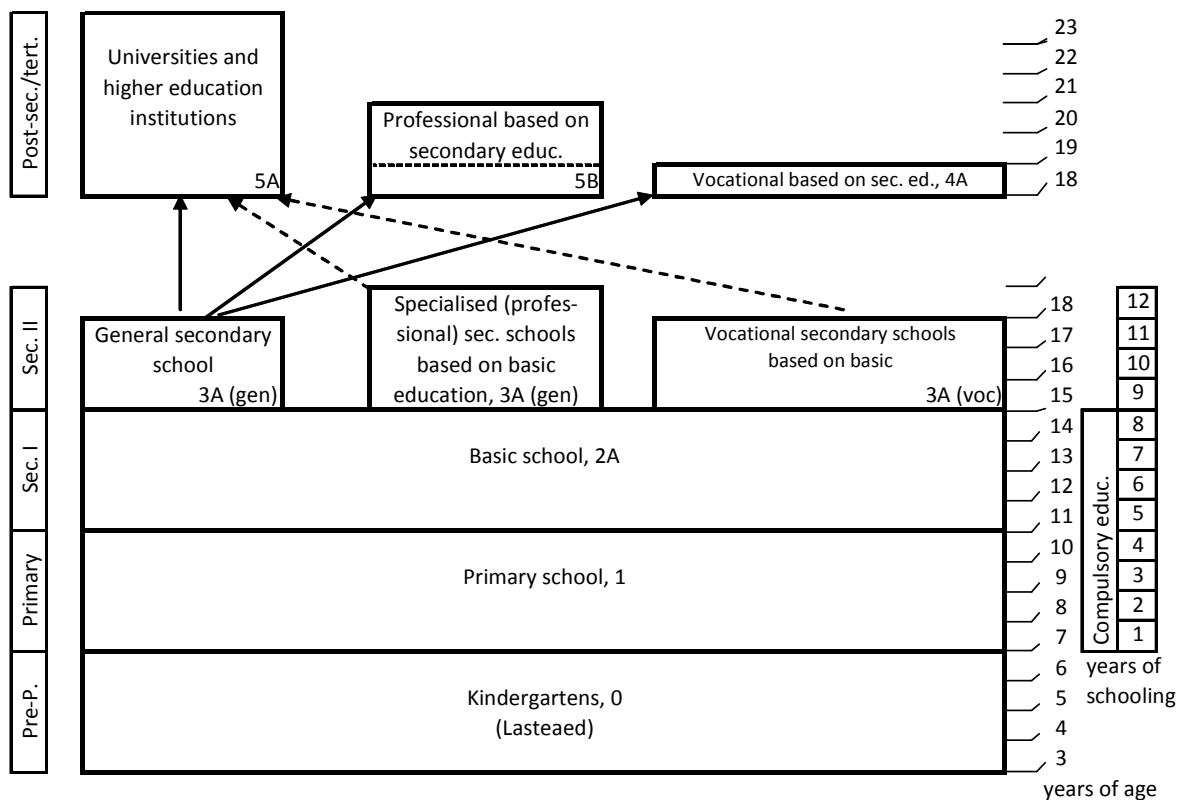
Figure 1. The educational system in Soviet Estonia
Source: Titma and Saar (1995)

There were two main criterias for enrolment at higher education institutions: a diploma in secondary education and a pass in the university entrance examination. Theoretically graduates of any of the secondary education tracks should have had similar chances to obtain a university education. Actually never more than 1 per cent of graduates of vocational schools and 5 per cent of graduates of specialised secondary schools obtained a higher education (Helemäe et al., 2000). Despite various reforms, general secondary schools gave their graduates the best chance of continuing their studies at university, while vocational schools were educational 'dead-ends'.

The changes in the educational structure in the 1990s were relatively minor (see Figure 2). According to the Law on Education, a child is obliged to attend school if their seventh birthday occurs before the 1st of October of the current year. The Law also requires compulsory education until the age of 17 years or till graduation from basic school, which consists of nine annual grades. The upper secondary level covers grades 10 to 12. In 1997, the admission to specialised secondary schools was abandoned and most of these schools were

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reorganised to become professional higher education institutions. At the end of the 1990s, the Bologna Declaration was implemented, and the 3+2 curriculum was adopted and provisions for professional higher education studies were drafted.

Figure 2. The Estonian system of education since the mid-1990s
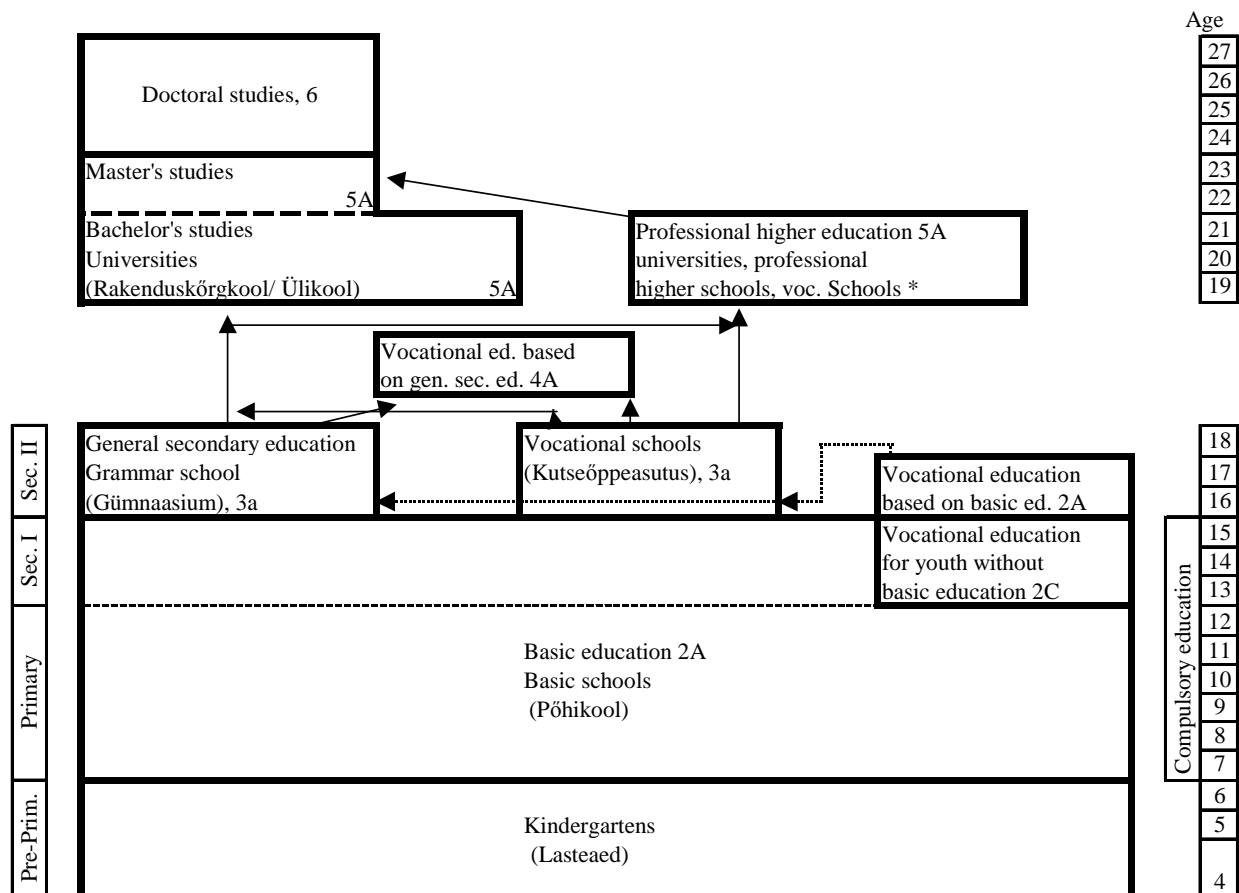
* Kutseőppeasutus/ Rakenduskőrgkool/ Ülikool

Historical background

After World War II we distinguish five historical periods in the development of educational opportunities in Estonia.

The first period (1946-1960) was a period of Stalinist terror. The wave of deportation in 1949 sent around 20,000 people to Siberia (Misiunas and Taagepera, 1993) and youths whose extended families had been deported had less educational opportunities. In 1949, seven years of basic education became compulsory, which was extended to eight years in 1958.

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School fees were abolished in 1956 (Gerber and Hout, 1995). In 1960, practically the whole cohort attained basic education (see Figure 3). In the 1950s, the main problem for the youth generation was access to higher education. Rigid ideologization of the system meant that strict limits were set for young people from the former elites (Kera, 1998).
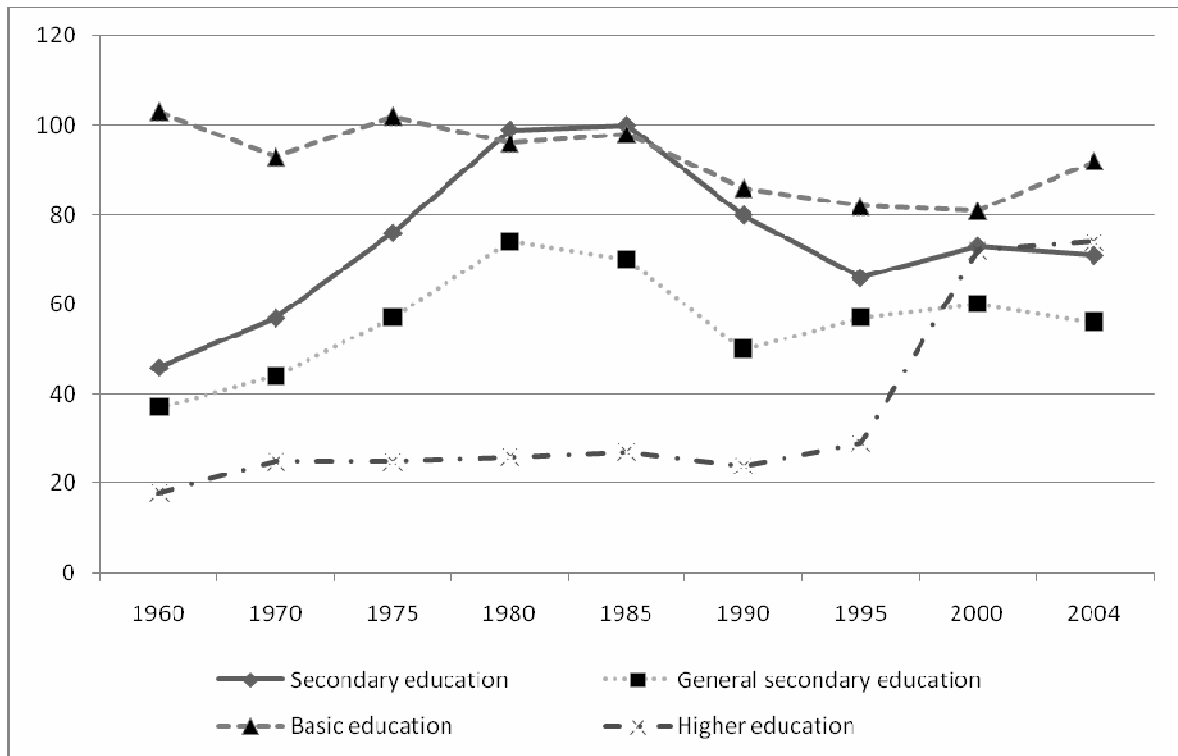

Figure 3. Enrollment rates in Estonia

Source: Helemäe, Saar and Vöörmann, 2000; Estonian Statistics

The period between 1960 and 1965 has been characterized as the 'thaw' period, whichrefers to Khrushchev's de-Stalinization and moderate political liberalization. This period also witnessed economic development as well as the redistribution of employment from agriculture to industry (Helemäe and Saar, 2011). The socialist regime provided a fairly secure existence during this period: very high job security, low rents, subsidized prices for food, free medical care and education. The welfare system of the socialist state partially compensated for the relatively low level of prosperity. At the end of the 1950s and at the beginning of the 1960s, the reforms undertaken during the Khrushchev period had an important impact on education. Quotas were determined for admission to higher education institutions, which favoured young people who had already been working, as well as those

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with worker origins (Matthews, 1982). To decrease educational inequalities, additional pathways (part-time evening and distance-learning programs) to university were created. The higher education institution enrolment ratio increased from 18 per cent in 1960 to 25 per cent in 1970 (see Figure 3). Almost all higher education students got a scholarship, which reduced economic restrictions.

Social and economic life in Estonia in the 1970s was characterized by increasing stagnation and centralized control (Helemäe and Saar, 2011). In the mid-1960s, state-wide secondary education was declared an official policy goal and so the third period (1966-1975) was characterised by the expansion of secondary education and enrolment into the sector increased steadily in the 1970s (from 46 per cent in 1960 to 76 per cent in 1975). However, expansion at the secondary level outstripped enrolments at the higher education level, which means that the opportunities for young people with secondary education to attain higher education did not increase (see Figure 3). Thus the expansion at the secondary level produced a bottleneck at the higher level.

The fourth period from the mid-1970s to the end of the 1980s can be characterised by continuing expansion and the hierarchical differentiation of secondary education. At the end of the 1970s, the education ministry declared that the transition to secondary education had taken place. At the end of the 1970s and the start of the 1980s, the general secondary school continued to dominate as the place to attain secondary education, but the proportion of this type of school in the secondary education system slightly declined (mainly due to the rapid development of vocational schools). By the late 1980s the employment structure of Estonia had lagged behind that of developed industrial countries by approximately 10–15 years. Most of the people were employed in manufacturing and agriculture (Ahde and Rajasalu, 1993). The proportion of blue-collar workers in the labour force was much larger than in western European countries.

Economic reforms in Estonia in the 1990s have been described as the most radical amongst the post-socialist countries, particularly because of its highly liberal economic principles and the modest role of the state. The dominance of liberal right-wing parties in all governmental coalitions since 1992 has contributed to a liberal economic regime, characterized by low social expenditures (Lauristin, 2003) and as a result social inequality increased (Kazjulja and Paškov, 2011)and enrolments declined at secondary level (see Figure

3). While vocational education at the secondary and post-secondary levels became increasingly unpopular, higher education expanded rapidly through the emergence of private institutions of higher education and the expansion of professional higher education. Enrolment increased from 24 per cent in1990 to 74 per cent in 2005 (see Figure 3). The proportion of students paying tuition increased from 7 per cent in 1993 to 54 per cent in 2005 and attests to the important role that private education has assumed in modern Estonia (Saar and Lindemann, 2008). One would expect the increased privatization of higher education to strengthen the advantages that higher-origin young people have in entry to universities.

So besides the different speeds of educational expansion, distinctive state policies and political processes characterised each of these periods.

Hypotheses

Considering all the above-mentioned arguments and the theoretical explanations (MMI and EMI hypotheses) we proposed to test the following hypotheses:

H1: Due to the expansion and differentiation of secondary education as well as the Khrushchev reforms in the 1960s and 1970s, the impact of social origin on the transition probability to secondary education decreased (according to MMI hypothesis), but the impact on transition to general secondary school increased (according to EMI hypothesis).

H2: Besides expansion at the secondary level in the 1960s and 1970s, higher education did not expand rapidly enough. According to MMI hypothesis the impact of origin to transition to higher education should increase. However, policy measures (quotas for students of working class origin) in the 1960s should reduce origin-based inequalities in transition to higher education. Therefore we hypothesise that the effect of social origin on the probability of making the transition between secondary education and higher education remained stable in the 1960s and 1970s.

H3: According to MMI hypotheses the contradiction in enrolments in secondary education during the 1990s should have increased the impact of social origin on transitions to secondary education and especially to general secondary education.

H4: In spite of the expansion of higher education the rapid marketization of this level of education as well as the growth of social inequality in the 1990s may lead to a significant increase in the effect of social origin on the probability of making the transition between

secondary and higher education. This might be primarily due to the increasing effect of parental social class (representing the *socio-economic* dimension of social stratification), while the effect of parental education (the *cultural* dimension of social stratification) remained stable because a family's cultural resources shouldbe less altered than class-based material resources (see also Gerber, 2000).

Data and Method

The Estonian Social Survey (ESS) was established in the framework of the European Union Statistics on Income and Living Conditions (EU SILC) project, with the main aim of providing information on social exclusion and income. The nationally representative sample of households randomly selected from the updated Population Census 2000 database initially included approximately 4,500 households and 10,000 individuals. All household members aged 15 years or older were interviewed. In total, 3,996 households and 8,906 individuals were interviewed. The response rate was 89 per cent. The 2005 sample included households that were interviewed in 2004 and also new households were added to make the sample representative. There were quite a lot missing data about parental social class[2]thus we have information about 4,803 respondents to analyse.

ESS 2004 have a separate section providing an overview of the events in an individual's life, such as studies, family, working life and changes in the place of residence but it does not include questions about social origin, whereas the ESS 2005 does. As the ESS is a panel survey (one survey cycle lasts four years) it was possible to combine two data sets. In this article we analyse the educational transitions for four birth cohorts born between 1935 and 1984. We defined four cohorts, as shown in Table 1, based on previously described periods and enrolment trends.

The disadvantage of using ESS data for analyzing educational transitions is the fairly small sample size for given cohorts. For example 'older' birth cohorts covering World War I (1910–19) and the years of the 1st Republic (1920–34) or the 'younger' birth cohorts, since Independence was restored (born after 1984) are not included in the analyses.

Table 1. Birth cohorts

Birth cohort	Historical period when the cohort moved to secondary education	Changes in the educational system and educational policy
1935-49	1950-65	Expansion of secondary education; Khrushchev's education reform: preferential development of part-time studies
1950-59	1965-75	Increasing participation in secondary education; preferential development of day-time studies
1960-74	1975-90	Transition to universal compulsory secondary; development of vocational secondary schools
1975-84	1990-99	Expansion and marketization of higher education

The information on educational attainment is retrospective, starting with the first choice after graduation basic school (T1). The alternatives are to leave school, to begin studies at a general secondary school, at a specialized secondary school (until 1997) or at a vocational secondary school. After the second transition point (T2), graduation from a secondary education institution, there are four choices: to leave school, to begin studies at a vocational school, at a specialized secondary school (until 1997) or at a higher education institution. Students were followed up until 2004 (i.e. when the youngest respondents were 20 years old). For all choices we know which track the student chose, although for some analyses these are grouped together in fewer broad categories. Table 2 presents the variables and their distribution.

Social origin is measured as the highest of the mother's or father's social class. The occupations of the respondents and their parents were converted from their original codes in the three-digit version of ISCO-88 to a four-category version. This class schema captures the essential social stratification in socialist and post-communist countries. Several authors (Titma et al., 2003; Gerber and Hout, 2004) analysed the applicability of that scheme to socialist and post-socialist societies. Petty bourgeoisie and self-employed farmers did not exist during the Soviet era and are excluded. The educational level of both parents is available as a categorical variable with eight categories. We combined some categories using the following scale: basic education; vocational education; general secondary education;

specialized secondary education; higher education. The parent with the higher educational attainment of both determines the parental education[3].

Table 2. Parental social position and education by cohort, %

	Cohort 1935-49	Cohort 1950-59	Cohort 1960-74	Cohort 1975-84
Parental social position				
Professional	14	20	26	31
Lower non-manual workers	18	27	33	40
Skilled manual workers	40	40	35	25
Unskilled workers	29	13	6	4
Parental education				
Primary and basic	69	50	28	7
Vocational	17	28	35	34
General secondary	7	9	15	20
Specialized secondary	4	6	9	18
Higher	3	8	13	21
N	1170	1108	1516	1009

We used multinomial logit models which include social origin, birth cohort and gender as explanatory variables. Trends in the impact of social origin are tested by the inclusion in the model of the interaction of social origin and cohort.

Results

Cohort and track differences in educational transitions

The trends in two main educational transitions are shown in Figures 4 and 5. Figure 4 indicates that educational opportunities at the secondary level increased for the cohort 1950-59. The proportion leaving the educational system decreased from 20 per cent to 5 per cent in the second half of the 1960s. In the cohort 1975-84 this percentage increased somewhat again. Changes in the distribution between different tracks have been quite minor (especially for the middle two cohorts, 1950-59 and 1960-74). The highest track (general secondary school) grew at the expense of the youngsters who dropped out of the educational system for cohorts 1950-59 and 1960-74. For the cohort 1975-84 the percentage of young people continuing their studies at general secondary school reached 60 per cent because admission to specialized secondary schools was abolished in 1997. For vocational secondary schools we found a small

increase in participation for the 1975-84 cohort, which may be as a result of the expansion of vocational education in the 1970s.
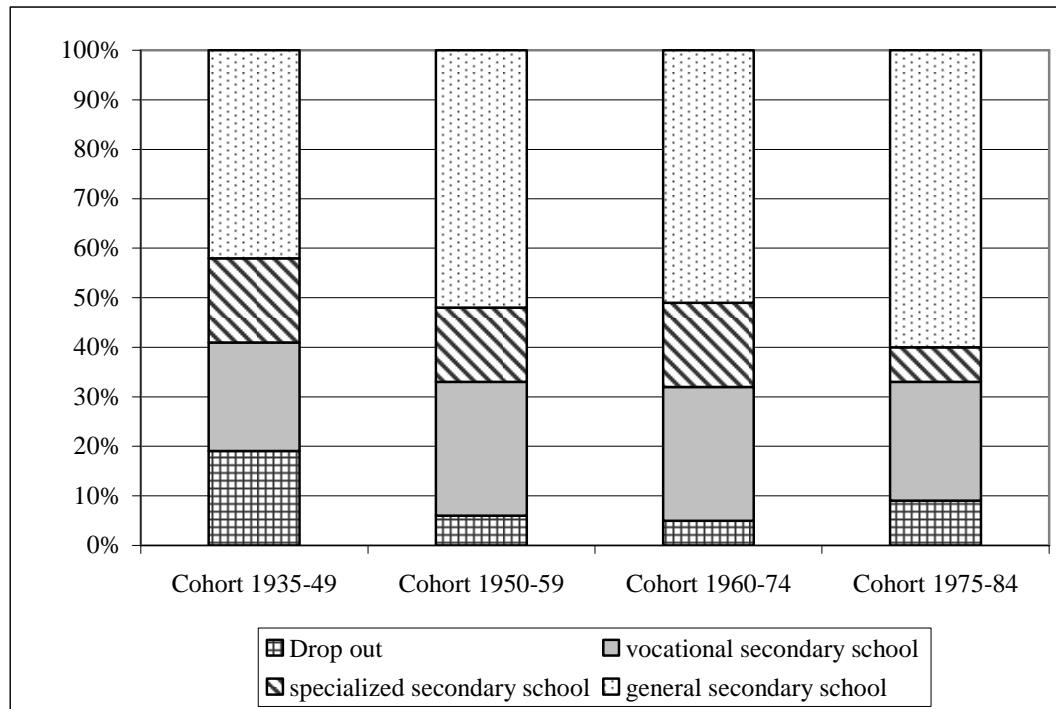

Figure 4. Transitions from basic education by cohort, %

There are no remarkable changes in the distribution of cohorts from 1935 to 1974 after graduation from secondary education (Figure 5). About one third of young people left school, about two fifths chose higher education institutions and others continued studies at vocational or specialized secondary schools. Figure 5 shows the clear expansion of higher education in the second half of the 1990s: 60 per cent of members of the 1975-84 cohort made the transition to university studies and only a quarter left the educational system.
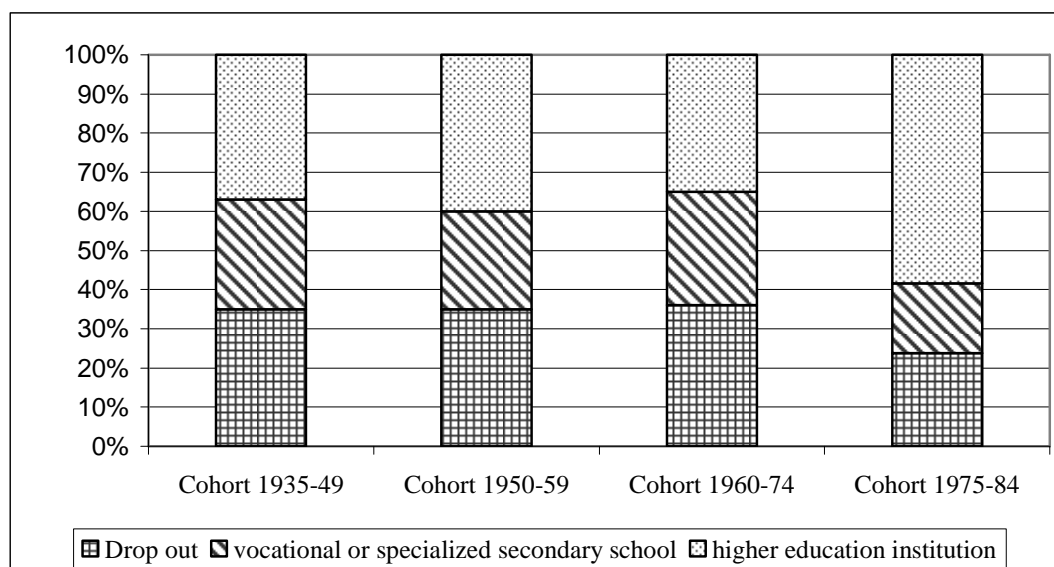
Figure 5. Transitions from secondary education by cohort, %

Distribution at point T1 (choice of secondary school track) has crucial consequences for the total distribution of educational qualifications because, as Table 3 shows, the probabilities of continuing to tertiary education vary sharply between different secondary school tracks: while only 5-9 per cent of those who completed vocational secondary school were enrolled at university, this was true for 42 per cent (35-59 per cent for different cohorts) of those who finished the academic secondary school track. The impact of secondary school track on the following transition in the education system seems to be quite similar for different cohorts.

Table 3. Transitions from different secondary education tracks by cohort, %

Seconday education track	Cohort	Leave school	Post-secondary	University
Vocational secondary school	1935-49	88	4	9
	1950-59	89	6	5
	1960-74	93	2	5
	1975-84	87	2	12
Specialized secondary school	1935-49	78	0	22
	1950-59	86	0	14
	1960-74	88	0	12
	1975-84	86	0	15
General secondary school	1935-49	35	28	37
	1950-59	35	25	40
	1960-74	36	29	35
	1975-84	24	18	59

Social inequality in educational transitions

To test the hypotheses we used different logit models[4]. First, we modeled the transition from basic education to secondary education using a binary logit model. Table 4 gives an overview of its -2LL and Chi-square values. Starting a model with three independent variables (cohort, gender, parental position) step by step we added the additional variables as parental education and cohort interactions of parental education and parental social status. The preferred model is Model IV, with cohort, gender, parental social status and cohort-interaction for changes in the effects of parents' social status.

As the second step we used a multinomial logit model, contrasting three different secondary school tracks with leaving education. The modeling strategy was the same as in the previous case. For Model IV, which adds an interaction between cohort and parental status, the fit improves somewhat showing that the impact of social origin on the choice of secondary school track has changed over time.

The third step of the analysis used a series of logit models for transition to higher education. Model I fits the effects of cohort, gender and parental social status. The addition of parental education and secondary school track into the model improved the fit significantly (Models II and III). However, Models IV and V, which added interactions between cohort and social origin variables, did not improve the fit, indicating that the association between social origin and transition probabilities to university has not changed over time. The preferred model is Model VI which includes the main effects of the explanatory variables as well as the interaction of secondary school track with cohort. This interaction represents the change in the effect of secondary school track over time.

Figures 6 and 7 illustrate the development of the effect of parental social status on the transition to secondary education. The preferred model indicated that the inequality in terms of parental social status increased for the youngest cohort (especially the differences in transition probabilities between the children of unskilled workers and of other social classes) but there was no change for the cohorts 1950-59 and 1960-74 compared with the cohorts which entered secondary education institutions in the 1950s and at the beginning of 1960s. So, the expansion of secondary education in the 1970s has not decreased the social inequality in access to secondary education. Therefore our results did not confirm the first hypothesis.

Table 4. Model fit statistics for logit models

Model	-2LL	Pseudo R square	Δ Chi square	Δ df	p
Transition to secondary education					
I: cohort, gender, parental social position	2865	.127	310	7	0.000
II: I + parental education	2793	.156	72	8	0.000
III: II + cohort x parental social position	2774	.163	19	9	0.021
IV: II + cohort x parental education	2780	.161	13	12	0.351
Transition to secondary education separating secondary school track, multinomial logit model					
I: cohort, gender, parental social position	1526	.180	180	3	0.000
II: I + parental education	1364	.187	161	12	0.000
III: II + cohort x parental social position	1327	.194	37	27	0.055
IV: II + cohort x parental education	1338	.192	26	36	.0.888
Transition to higher education					
I: cohort, gender, parental social position	4235	.143	395	7	0.000
II: I + parental education	4162	.168	73	4	0.000
III: II + secondary education track	3870	.263	293	2	0.000
IV: III + cohort x parental social position	3854	.267	14	9	0.129
V: III + cohort x parental education	3857	.266	12	12	0.475
VI: III + cohort x secondary education track	3850	.269	20	6	0.003

Inequality in the transition to the academic track of secondary education increased somewhat for the cohort 1950-59. However, the change is quite small compared with the cohort1935-49: children of professionals improved their chances to enter general secondary schools to some extent. A significant increase in inequality took place in the 1990s: the transition probability of young people originating from the families of professionals to general secondary school was 0.78, whereas it was only 0.32 for the children of unskilled workers. For other tracks of secondary education, cohort differences on the impact of parental social

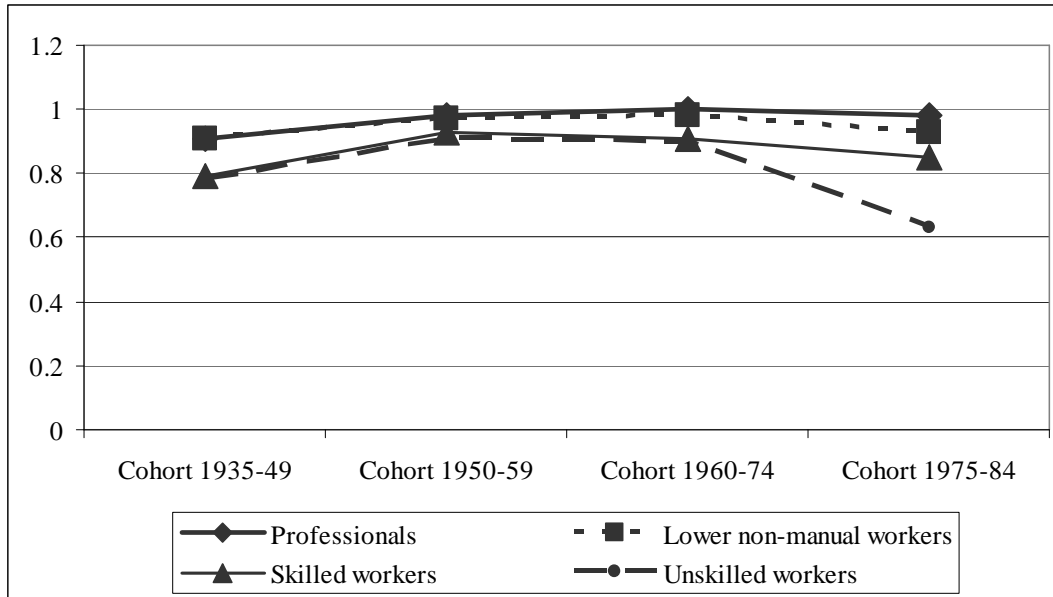status were smaller. This result confirms the third hypothesis.

Figure 6. Transition probabilities from basic school to secondary education institution by cohort and social origin
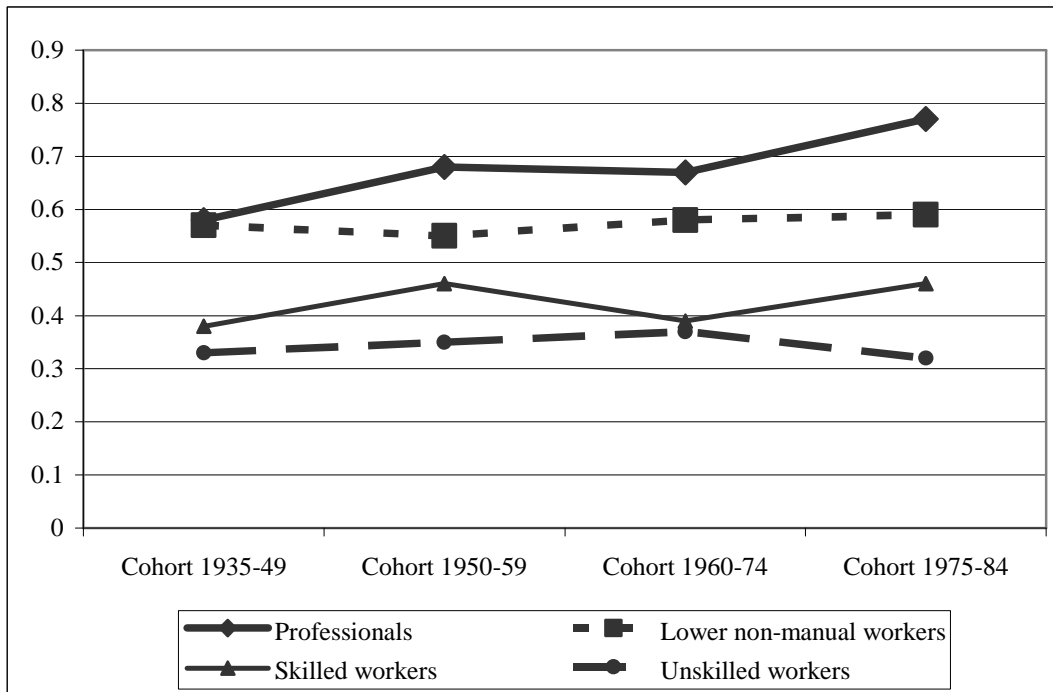

Figure 7. Transition probabilities from basic education to general secondary school by cohort and social origin

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The model selected for the transition to higher education (Model VI) showed that the impact of social origin on this transition has not changed over time (neither the impact of parental social status nor parental education). Figure 8 also indicates that the transition rates increased significantly for the cohort 1975-84 but that this increase has been distributed proportionally across all social classes. This means that social inequality in access to higher education has not increased in the 1990s. So, our analysis confirmed the second hypothesis but rejected the fourth hypothesis.
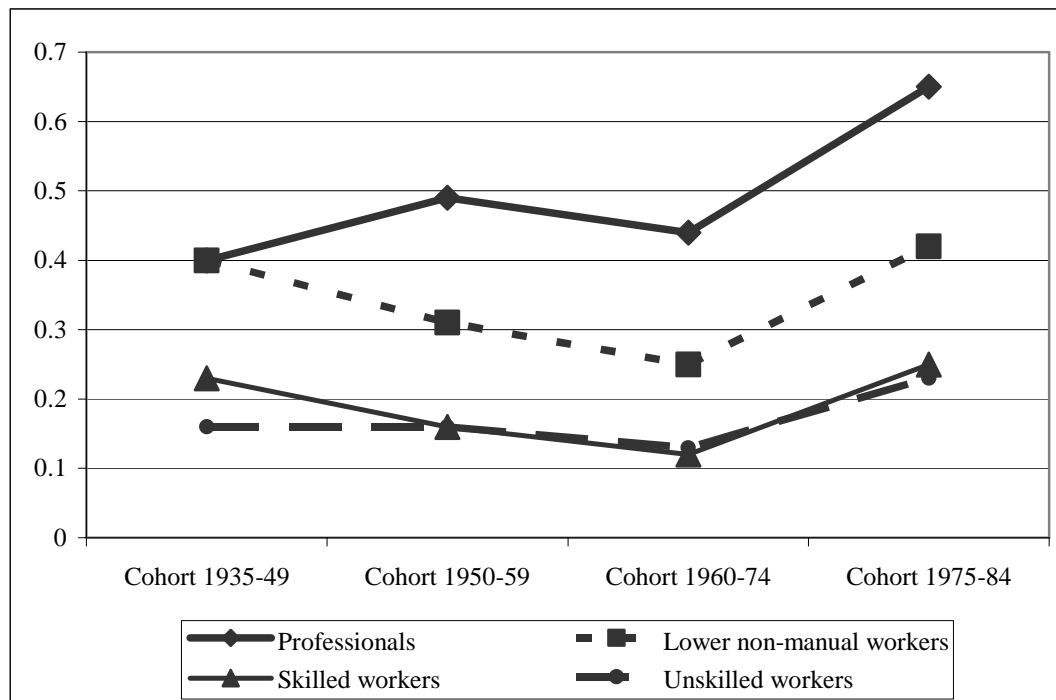

Figure 8. Transition probabilities from secondary education to higher education by cohort and social origin

The preferred model (Model VI) also demonstrated that the impact of the secondary school track on the transition to university increased for the cohort 1975-84. As illustrated in Figure 9, a statistically significant increase took place in the inequalities between graduates of general secondary schools and other types of secondary education in the second half of the 1990s. For young people who attained general secondary education the opportunities to enter universities improved substantially, while for graduates of vocational secondary schools these opportunities remained unchanged.
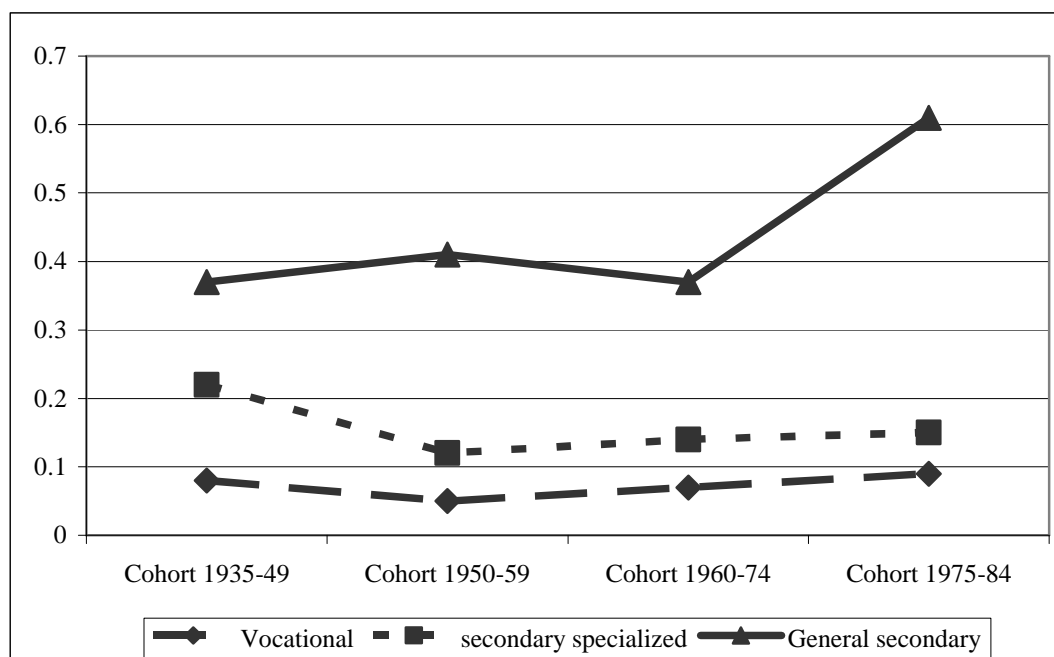
Figure 9. Transition probabilities from different secondary school tracks to higher education by cohort

Conclusions

In this paper we set out to explain trends in two decisive transition points in the Estonian education system: transition to basic school to different secondary education tracks and transition from secondary education institutions to higher education. Previous research has not accounted for the track nature of the Estonian secondary education system. Our analysis showed the importance of the track choice because the effects of shifts in participation and changes in family background are specific to different secondary education tracks. This approach allowed us to point out, at which transition point inequalities in educational attainment emerge.

Our dataset allowed us to trace the development of the effects of parental education and social status from the 1950s until the period after the radical social changes in the 1990s. The analysis focused on testing four hypotheses that derived from the theses of maximally maintained inequality and of effectively maintained inequality.

Our analysis showed persistent inequality in the transition to secondary education during the period of socialism, despite the expansion of secondary education in the 1960s and 1970s. Thus neither growth nor saturation is a necessary condition for decreasing the effects

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of family background variables. The results also indicate that the choice of a secondary track was strongly dependent on social background, which is in accordance with previous results about the impact of tracking on educational inequalities (see Müller and Karle, 1993; Marks, 2005). Overall, our results refute the thesis of maximally maintained inequality (inequalities are maintained as long as the privileged groups do not reach saturation in certain educational level); rather, they are consistent with the effectively maintained inequality thesis, which claims that the differentiation of a given educational level substitutes qualitative inequalities for quantitative ones (see Lucas, 2001). The expansion of secondary education resulted in a very limited equalization because in the meanwhile the middle classes expand their enrolments in general secondary education.

The impact of social origin on transitions to higher education institutions remains unchanged between the 1960s and 1980s. This is a proof of the complete failure of policy measures directed to make the access to higher education more egalitarian (see also Gerber and Hout, 1995). These findings affirm the theory of trajectory maintenance (Hanley and McKeever, 1997).

With regard to the period of post-socialist development, the analysis showed that social inequalities in the transition probabilities to secondary education increased significantly. The impact of parental social status on transition to the most prestigious secondary school track also increased. The preferential development of the general secondary school track in the 1990s was accompanied by growing opportunities forthe children of professionals to enter this type of school. Opportunities for other social classes did not change. Breen et al. (2009) indicate that one important mechanism for declining educational inequality is the substantial reduction in class origin effects at the transition to secondary education. We found that in post-socialist Estonia class inequalities at this transition point increased. This result might explain a previously found increase in educational inequalities in the 1990s (see Saar, 2010). The reversed equalization of educational opportunities in Estonia has echoed previous findings from several post-socialist countries (see Gerber, 2000; Bukodi and Goldthorpe, 2010).

We found that social origin variables had a strong impact on the transition to higher education. Surprisingly this effect did not change during either socialist period or in the 1990s. The increasing enrolment in higher education in the 1990s produced only minor

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changes in the effects of social origins on the probability of entry to higher education. This finding contradicts expectations derived from MMI, which implies that the effects of origin on transition probabilities should decrease in proportion to enrolments. This pattern could result from two factors having opposite effects on class inequalities in transitions to higher education. On one side, expansion of higher education might decrease while on the other side privatization of higher education and the growth ofsocial inequality might increase this impact. These factors might counterbalance each other and explain our results about the stable impact of social origin in the 1990s. Another explanation is based in the consequences of stricter origin-based selection at the secondary level. Because social selection at the secondary level became more pronounced in the 1990s, lower origin young people who completed general secondary school could have performed better on average on the unmeasured attributes that contribute to their academic success, such as ability and motivation. The result is persistent inequality in the transition to higher education, because the impact of the secondary education track on this transition has increased.

The findings suggest that effects of class and parental education do not follow the same patterns over time. We found an increase of the effects of parental class and no change in the impact of parental education on educational transitions in the 1990s, which means that besides a family's cultural resources the importance of material resources increased in the post-communist period.

This complex pattern – increased stratification at transition to secondary education and stable stratification at entry to higher education is similar to the pattern found in post-Soviet Russia (Gerber, 2005). But if Estonia witnessed a contraction at secondary level but expansion at the higher level, in Russia enrolments fell at both levels. Therefore opposite trends (increased and decreased enrolments) may produce a similar result (stable stratification).

Our main conclusion is that the distribution of educational opportunity is related more to the rules that govern educational selection and the mechanisms of resource distribution than to the expansion of the educational system per se (Wu, 2010). Estonia seems to be similar to Britain, where educational expansion also occurred with no change in educational equality (Breen, 2010).

We were not able to take into account the hierarchical differentiation of higher

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education. According to the typology offered by Shavit et al. (2007) Estonia has a diversified higher education system and in these conditions university education, which is still considered better and more prestigious than professional higher education, could maintain and increase its level of selectivity (see also Saar and Unt, 2011).

Previous studies (Helemäe et al., 2000) indicate the compensatory effect of social background on educational transitions, which means that young people with higher social origin placed in non-academic track have had 'a second chance' (see Bernardi, 2012). Further analysis is needed to study this compensatory effect more thoroughly.

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Notes

[1]According to Boudon (1974) social origin affects educational transitions as a result of differences in children's academic performance (primary effects) and class differences in decision to continue on to higher levels of education (secondary effects) (see also Jackson et al., 2007). However, we are not able to separate these two effects because the ESS does not include questions about academic performance.

[2]We have data about educational transitions of 5682 respondents. Du to missing origin class data we have lost approximately 900 respondents. However, it seems have no impact on our results because there were very minor differences in the educational transitions of respondents for whom we have data about their social origin and for whom we do not have such data.

[3]We as most studies of educational stratification view parental education primarily as an indication of cultural capital and parental social group as a measure of material resources.

[4]We have also re-estimated with a loglinear approach so as to check for robustness. As it turned out, the results are similar to those derived from our transition models. Results are available upon request from authors.