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Evolution and Determination of Educational Inequalities in the Czech Republic between 1955 and 2002 in the European Context

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Contents

Evolution and Determination of Educational Inequalities in the Czech Republic between 1955 and 2002 in the European Context

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Abstract

This text identifies the trends in the influence of socio-economic, cultural and gender factors in the reproduction of educational inequality in access to tertiary education in the Czech Republic, Switzerland, Germany, Poland and Sweden. Previous research conducted in the Czech Republic alone arrived at contradictory conclusions – concerning both trends in inequality after the demise of the Socialist regime and the weight of the factors that cause inequality. Also, no comparison has been made that would place the Czech Republic in an international context of other countries. This article does, on the one hand, follow on previous research, but, on the other, it adds two new dimensions: 1) an international comparison and 2) the most recent data on the trends in inequality in all the aforementioned countries (Czech Republic, Switzerland, Sweden, Germany and Poland). The focus of our research is the trend in inequality in the Czech Republic, which is the country of our focus. The international comparison provides a feedback for adequate assessment of the level and progress of the inequality. We used multidimensional statistical methods (logit modelling and log-linear analysis), which we applied to the latest available international data from the ESS survey (ESS 2004). We built our model to suit Czech conditions; then we applied it to the other countries and explored the differences in comparison to the Czech situation. The results have shown that the most important determinant of the present attitude to tertiary education in the Czech Republic in the pool of all the surveyed countries is the cultural aspect of social background (the father's education). Switzerland is the most similar to the Czech Republic in this respect. In both countries, the chances for success in the transition to university increase with time, and men have generally better chances than women. The educational status of the family is also the main determinant of educational reproduction in Sweden. Paradoxically, in countries which are closer to the Czech Republic in terms of history and geography, i.e. Poland and Germany, the main driver of the transition of educational status is the father's EGP.

Keywords

reproduction of education, educational inequality, tertiary education

Vývoj a determinace vzdělanostních nerovností v České republice v letech 1955 až 2002 v evropském kontextu

Natalie Simonová, Petr Soukup

Abstrakt

Tento text identifikuje vývoj vlivu socio-ekonomických, kulturních a genderových faktorů na reprodukci vzdělanostních nerovností v přístupu k terciárnímu vzdělání v České republice, Švýcarsku, Německu, Polsku a Švédsku. Dosavadní analýzy provedené pouze pro ČR došly k rozporuplným výsledkům jak o samotném vývoji nerovností po pádu socialismu, tak o váze faktorů, které je způsobují, a dosud rovněž nebyla provedena žádná mezinárodní komparace, s jejíž pomocí by bylo možné výsledky získané pro ČR porovnat s jinými státy. Tímto textem tak sice navazujeme na předchozí analýzy, nově je však rozvíjíme ve dvou ohledech: 1) mezinárodním srovnáním a 2) aktualizací vývoje nerovností ve všech zmíněných zemích (České republice, Švýcarsku, Švédsku, Německu a Polsku) až do roku 2002. Jádrem našeho zkoumání je vývoj nerovností v ČR, která stojí v centru našeho zájmu. Porovnání s ostatními státy nám slouží jako zpětná vazba pro adekvátní posouzení hladiny i vývoje nerovností. K analýze jsme použili multi-dimenzionální statistické metody (logitové modelování a log-lineární analýzu), které jsme aplikovali na poslední dostupná mezinárodní data šetření ESS. Model, který jsme vybudovali tak, aby co nejlépe vystihoval české podmínky, jsme poté aplikovali na ostatní zkoumané země, u nichž jsme sledovali odlišnost od české situace. Výsledky nám ukázaly, že současný přístup k terciárnímu vzdělání v ČR je v rámci všech analyzovaných zemí nejvíce determinován kulturní složkou sociálního původu (vzděláním otce). Zemí, která je ČR v tomto ohledu nejvíce podobná, je Švýcarsko. V obou zemích se šance na úspěch v tranzici na vysokou školu v čase zvyšují, přičemž muži mají tyto šance větší než ženy. Vzdělanostní status rodiny je zásadním faktorem vzdělanostní reprodukce také ve Švédsku. Paradoxně pak v zemích, které mají k ČR historicky i geograficky blíže, Polsku a Německu, je naopak zásadní determinantou přenosu vzdělanostního statusu EGP otce.

Klíčová slova

reprodukce vzdělání, vzdělanostní nerovnosti, terciární vzdělání

Entwicklung und Bestimmung von Bildungsungleichheiten in Tschechien in den Jahren 1955 bis 2002 im europäischen Kontext

Natalie Simonová, Petr Soukup

Abstrakt

In diesem Text wird die Entwicklung des Einflusses sozio-ökonomischer, kultureller und Gender-Faktoren auf die Reproduktion von Bildungsungleichheit im Zugang zur tertiären Bildung in Tschechien, der Schweiz, Deutschland, Polen und Schweden identifiziert. Die bisherigen, nur für Tschechien durchgeführten Analysen führten sowohl hinsichtlich der Entwicklung der Bildungsungleichheit nach dem Fall des Sozialismus als auch hinsichtlich der die Bildungsungleichheit bedingenden Faktoren zu widersprüchlichen Ergebnissen; gleichfalls gibt es bislang keinen Studien mit einem internationalen Vergleich zwischen Tschechien und anderen Ländern. Mit diesem Text knüpfen wir daher an vorherige Analysen an, erweitern diese jedoch um zwei wichtige Aspekte: 1) den internationalen Vergleich und 2) die Aktualisierung der Entwicklung der Bildungsungleichheit in den genannten Ländern (Tschechien, Schweiz, Deutschland, Polen und Schweden) bis zum Jahr 2002. Kern unserer Untersuchung und Zentrum unseres Interesses ist die Entwicklung der Bildungsungleichheit in Tschechien. Der Vergleich mit den anderen Ländern dient uns als Feedback zur adäquaten Bewertung des Niveaus und der Entwicklung der Bildungsungleichheit. Zur Analyse verwendeten wir multidimensionale Statistikverfahren (die Logit-Modellierung und die Log-lineare Analyse), die wir auf die neuesten greifbaren Daten der internationalen ESS-Untersuchung anwendeten. Das Modell, das wir so aufbauten, damit es den tschechischen Bedingungen möglichst entspricht, wendeten wir anschließend auf die anderen Länder an und untersuchten die Unterschiede zu Tschechien. Die Ergebnisse zeigten, dass der Zugang zur tertiären Bildung in Tschechien im Vergleich mit den analysierten Ländern am meisten durch den Kulturfaktor der sozialen Herkunft (Bildung des Vaters) determiniert ist. Dabei ist die Schweiz in dieser Hinsicht Tschechien am ähnlichsten. In beiden Ländern erhöhen sich die Erfolgschancen für einen Hochschulübergang mit der Zeit, wobei Männer hier größere Chancen haben als Frauen. Der Bildungsstatus der Familie ist auch in Schweden ein grundlegender Faktor der Bildungsreproduktion. Paradoxerweise ist in den Ländern, die Tschechien historisch und geografisch am nächsten sind, d.h. Polen und Deutschland, der EGP des Vaters die grundlegende Determinante der Übertragung des Bildungsstatus.

Schlüsselwörter

Bildungsreproduktion, Bildungsungleichheit, tertiäre Bildung

Introduction

It is not easy to compare the trends in educational inequality in different countries. There are cultural, political and economic differences at play, exacerbated by different histories and different developments in education policy. The situation is further complicated by the difficult demarcation, with regard to the different histories, of individual stages which could be compared across the countries. Regardless of these complications, the differences between the countries are what make the study interesting and inspirational. The analysis we are making here is based on comparing countries which we selected in anticipation of interesting differences between them. The Czech Republic is our reference; we compared it to a former Eastern Bloc country (Poland, a country with a shared political history with the Czech Republic), a country with a tradition of political neutrality (Switzerland, whose history has not been disrupted by political experimentation), a country with a formally very similar schooling system (Germany), and a country with a long tradition of having an advanced schooling system and low educational inequality (Sweden).

The development of inequalities in the Czech lands during the twentieth century – and here we are referring not only to educational inequality – was determined by a series of several, largely very diverse political formations: first the yoke of the Austro-Hungarian monarchy, then the birth of the independent Czechoslovak Republic in 1918, the arrival of Socialism after the Second World War, its subsequent fall in 1989, the split of Czechoslovakia and the formation of the independent Czech Republic in 1993. The Czech State entered the new millennium under a wholly new political constellation, which also determined the future shape of the schooling system. Its previous development was typical especially in the sense that all previously Socialist Eastern Bloc countries implemented a common strategy for the development of their systems of education. That is precisely why the attributes of the Czech schooling system that developed during the era of Socialism were not substantially different from the attributes of the systems of the other countries in the region. Educational institutions were directly managed by the state and provided free education, educational opportunities expanded (on all levels), positive discrimination measures proved effective only in isolated instances, men and women were made equal and any barriers in access to secondary education were levelled out. Tertiary education, on the other hand, proved to be resistant to any attempts to level out any barriers. After the fall of Socialism, the situation certainly was not a reason for despair, but nor was it a reason to celebrate.

1. Tenets

The following research question provided the tenet for our analysis: Despite the diverse development trajectories in the countries included in the comparison and their diverse economic and educational structures and institutions, are there any differences in the trends in educational inequality, i.e. differences in the scope of the inequality and in the factors that drive them? Or – in other words – we asked how the relationship between the socio-economic attributes of the family of origin and the success of the respondent's transition to tertiary education developed over time. The key advantage over the available attempts at an international comparative analysis [namely by Shavit, Blosfeld 1993 or Shavit, Arum, Gamoran 2007] was that we used an international survey carried out with the same methodology in all the surveyed countries (ESS 2004). The aforementioned attempts to make an international comparison did, however, provide us with their authors' findings to draw on. Generalisations concerning the effects of social background over the course of the educational trajectory – e.g. that the social background factors decline across the cohorts and in the direction of higher transitions as the selectiveness of the system increases while the non-measured heterogeneity decreases – have proven to be very valuable. Students become socially more homogeneous in the direction of higher educational transitions, which "optically" reduces the influence of their social background. In reality, however, the factor of the social background works on higher transitions, because here the students have to leave their path of education due to the increasing demands of their study. Numerically, on the other hand, the social background factor is lowest on the higher and highest transitions, because students from poorer backgrounds tend to leave the system earlier and do not participate in these transitions.

Another tenet was the finding that in all countries analysed to date there was little or no change in the socio-economic inequality in educational opportunities. The finding refuted the modernisation theory, which predicted a decline in inequality, and endorsed the cultural reproduction theory, which predicts a stable or even a growing trend in inequality, i.e. the growing influence of social background. In the context of the trends in educational inequality in the countries we analysed, the theory of Maximally Maintained Inequality (MMI) was very important. The theory was refuted only in Sweden and the Netherlands, where – despite the unsaturated demand from higher classes – educational inequality on higher levels was not successfully reduced [Jonsson 1993; De Graaf, Ganzeboom 1993]. We also wanted to reflect on the theory of Effectively Maintained Inequality (EMI), which points to the implications of qualitatively differentiated expansion into higher levels of education [Lucas 2001].

As a starting point, we also used comparative analyses made to date. They concluded that the Czech Republic at the end of Socialism had the same level of educational inequality as Western countries and displayed the same long-term stability [Matějů 1990; Matějů, Peschar 1990]. The fall of Socialism bestowed on the country a system of education that could not meet the demands of the nascent market economy. The purpose of this discourse is to demonstrate the influence of the period after the so-called Velvet Revolution (1989), which also brought transformation of the system of education, on the trends in inequality of access to tertiary education in the Czech Republic, and to compare it to other countries: Germany, Poland, Sweden and Switzerland. This text follows on earlier research of inequality of access to higher education in the Czech Republic [e.g. Matějů 1993; Simonová 2003; Matějů, Řeháková, Simonová 2007], but we add two substantive dimensions: 1) an international comparison and 2) an analysis of the current trends in the context of the developing market mechanisms. To this end, we used the latest available data from the international ESS survey from 2004, which had already included the youngest cohort. Our analysis surveyed the inter-cohort differences in the influence of socio-economic factors (represented by education and the father's EGP) and the respondent's gender on success in the two main educational transitions (to secondary and tertiary education). Before we proceed to the analysis of the data itself, we will summarise the progress of inequality in (but not limited to) the Czech schooling system, referring to the theories of educational inequality.

2. General Trend in Educational Inequality in (but not Limited to) the Czech Republic, as Seen through the Prism of Theory

Since the history of educational inequality and educational mobility in the Socialist era in the Czech lands has been well described by other authors [Matějů 1993; Simonová 2008], our study will deal with past developments only in terms of their (non)conformity with theoretical theses, and we will focus particularly on the post-1989 period. The first theory to proffer itself from the pool of available theories is the modernisation theory [Blau, Duncan 1967; Treiman 1970; Featherman, Hauser 1978], which predicts that educational inequalities would diminish over time. Despite the expansion in the number of educational opportunities (especially after the Second World War), the theory was not borne out in reality. Although formal education increased and the association between social background and length of education weakened in the Czech lands, as well as in the whole Eastern Bloc and in Western countries, the social background factor remained the same. As already mentioned above, the Socialist tendencies to eliminate class differences have not produced a more permanent effect either. There were only short-term dips in inequality, e.g. in the 1950s in Czechoslovakia, which in this instance were caused by a massive effort to recruit university students from among the lower classes (young workers and collective farmers) in conjunction with a campaign to cleanse universities of people with a tainted class profile and of undesirable elements. For explanation and proof of this phenomenon see the *socialist transformation hypothesis* [Matějů 1993].

The theory of *Maximally Maintained Inequality – MMI* [Raftery, Hout 1993] explains how it is possible that inequality decreased in the Socialist period on the level of secondary education and yet remained the same on entry to the universities. The authors demonstrated that the increasing numbers of students going through a transition may reduce inequality in the transition in question, yet cause a constant or increasing inequality in the following transition, unless the educational opportunities broaden accordingly on this level also. In the Czech lands after 1971, the number of student places increased significantly due to the expansion of complete vocational secondary education (meaning education with a leaving examination, the so-called *maturita)*. The increase not only balanced out the "natural" population growth and the ascending inter-generation social mobility, but also suppressed the inequality in access to education. Increasingly more children from low-status families were making the transition, and the number of applicants for universities grew accordingly. Since the expansion of tertiary education did not match that of secondary schooling, the low-status candidates hoping to pass from the secondary to the tertiary system were those who had markedly lower chances of succeeding. The social background factor in the transition between secondary school and university reverted in the 1970s to its pre-Socialist level [Matějů 1993; Simonová 2003]. The MMI theory suggests that the process of reducing inequalities may be turned around completely

if the rising numbers of applicants produce greater selectiveness on a particular level of the system of education.

To date, no proof has been put forward as to whether the situation has perpetuated also after 1989 – meaning whether the surplus of university applicants is still the same or growing, or whether the selection criteria have grown more lenient, which would mean that the social background factor is weaker and the higher classes were saturated (as suggested by MMI). The results available to date have been contradictory; they have varied according to the analytical method and the data used. Some suggested stability [Simonová 2003] and others seemed to point in the direction of greater inequality [Matějů, Řeháková, Simonová 2007]. However, what has survived 1989 and consistently applies is a mechanism that the theory of *Effectively maintained inequality – EMI* [Lucas 2001] draws attention to and criticises MMI for ignoring. The process is patently evident in the Czech secondary schooling system and wields almost absolute influence over success in the subsequent transition to university. The battle is no longer about how to secure secondary education – because access to secondary education is universal – but about getting quality education, i.e. at which secondary school. The EMI theory takes issue with MMI for implying that inequalities in the context of universal access are zero at a certain level of education. EMI points to the qualitative differences at the same level of education, which are caused by selection for various types of schools. The Czech Republic has: 1) vocational colleges providing lower secondary education with manual skills and no possibility of going on to university; 2) secondary professional schools providing higher secondary education with professional and academic skills, with the possibility of going on to university; 3) grammar schools (academic secondary schools) providing general academic education aimed at preparing school leavers for university studies (figure 1 and 2).

Figure 1. Structure of compulsory education in the CR

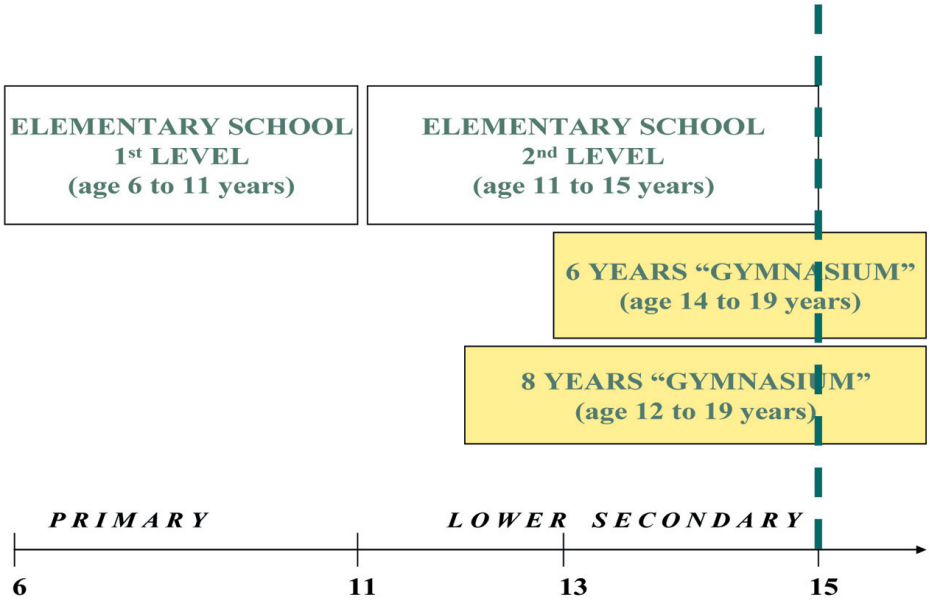
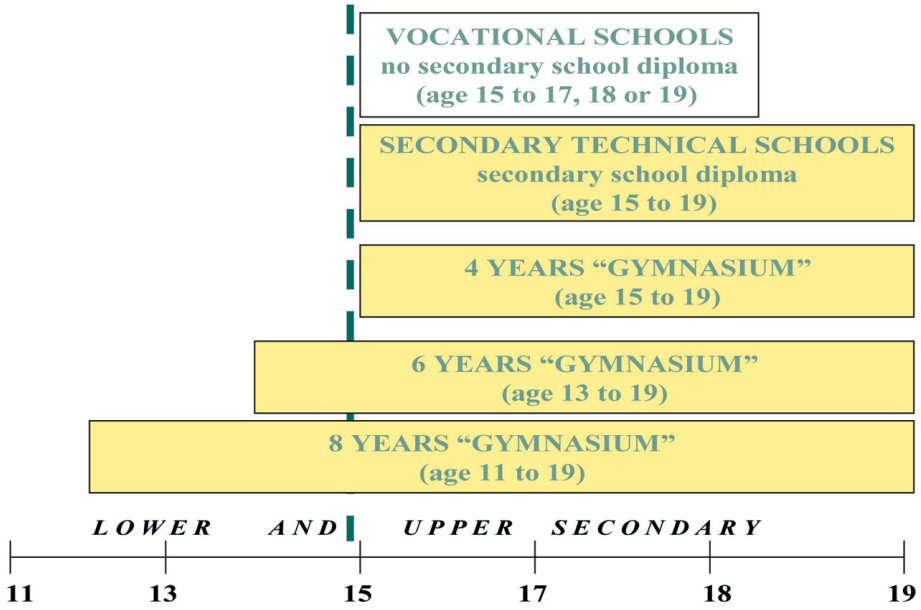


Figure 2. Structure of secondary education in the CR



It is evident that families with a better socio-economic standing will, in the context of this structure of secondary schooling, choose between the two latter options, with the possibility of going on to university and reaching the highest form of education. The process and its existence in the Socialist period were documented in the *trajectory maintenance hypothesis* [Hanley, McKeever 1997]. It can be rightly assumed that the same principle would apply also at the tertiary level. On the one hand, the Czech Republic does not have league tables of universities as we know them in the U.S., but there is a certain acquiescence about which schools are good and which are poorer, which manifests itself in the number of applications and the success rate of applicants. In response to EMI, which showed that the qualitative differences between schools could increase the social background factor also at the tertiary level, factors such as the status profiles of students in better and poorer universities, as a potential consequence of the massification and diversification of tertiary education, must be considered.

At present, the social background effect in the Czech system of education is at its strongest in the selection of secondary schools; in some instances even earlier, in the selection of a specialised class in the elementary school. As already mentioned above, the social background factor in the transition to university is already "diluted" and the situation appears to be conforming to both directions of the transitive research (MMI or Life-course hypothesis). The effect of social background is diminishing across the transition due to the earlier selection and the fact that older students are less dependent on the starting conditions (both materially and for their values). In the Czech environment, the social background factor still carries more weight on entry to secondary school than to university. However, EMI has demonstrated that it does not need to apply universally, and the situation could be quite the opposite. If the degree of differentiations between individual levels

is factored in, the conflict theory [Collins 1971, 1979; Bourdieu 1973; De Graaf 1986] could be correct in that the effect of social background on the degree of completed education is diminishing only in earlier transitions.

3. Transition from Secondary Schools to Universities in the Czech Republic – the History

The Czech Republic has never experienced such massive overflows of social classes within levels of education as, for instance, Russia during Stalin's Cultural Revolution or Khrushchev's reforms [Gerber, Hout 1995], or China during its Cultural Revolution of 1966-1977 [Zhou, Moen, Tuma 1998]. Restricting educational opportunities for some and positive discrimination for others in the Czech Republic led to a certain equalisation of access to university in the 1950s and 60s, but inequality began to grow again during the 70s and 90s. At this time, the gap between the secondary and tertiary level of education began to widen. Although the numbers of university students gradually increased, the rate of increase was still slower than the rate of increase of secondary school leavers (with the leaving examination). On the one hand, each cohort had more opportunities to study (social background played a lesser part in the achieved education), but on the other hand, the opportunities were not allocated in a different way than before [e.g. Nieuwbeerta, Rijken 1996; Matějů 1993]. In the long term, the relative positioning of the classes has not changed either – the relations of sons and daughters of workers to sons and daughters from higher classes remained the same. The random effectiveness of Socialist measures was not peculiar to the Eastern Bloc; following a dip in 1978–94, China is again experiencing a growing trend in inequality [Zhou, Moen, Tuma 1998]. Similarly in Sweden, where the system of education was reformed in the early 1960s, the reduction in the association between social background and education of offspring could not be ascribed to the reforms, as the decrease occurred prior to the reforms.

The simplest proof of structural changes in the social profile of Czech university students before 1989 would be records of percentage transformations in their class constitution. With respect to all the official policies of the times, which called for the student profile at universities to reflect the class profile of the general population, it is rather surprising that no official data is available and indeed it seems no such data was ever collected. However, from sociological research we know that the democratisation of education in the Czech Republic reduced the dependency of achieved education on class, gender and birthplace.

Our knowledge of the educational inequality situation during Socialism and the subsequent political turnaround in 1989 then raises the question: What happened to the social background factor afterwards? Did it go up or down? EMI refers to the basic tenet that where there is no universal access to education of a certain level, inequalities are rife (this is a point where it agrees with MMI), and the battle is not waged at the level of quality (i.e. striving for education of the highest quality), but at the level of quantity (just getting any education), which is (still) the case for university education

not only in the Czech Republic,[1] but in all the countries we analysed. The analyses of mobility and of odds ratios mapping the post-Revolution history seem to suggest that, despite the increase in educational opportunities, there has not been a decrease in educational reproduction. The results reveal either a stable situation [Simonová 2008] or an increase [Matějů, Řeháková, Simonová 2007]. Likewise, another post-Socialist country, Russia, has not been able to determine whether inequalities in access to tertiary education after 1990 increased or decreased [Gerber 2000].

Available research suggests that the determinants of transition from secondary school to university have not changed. Until the end of Socialism in the Czech Republic, as was the case in Poland [Heyns, Bialecki 1993], the transition was influenced rather by the parents' education than by the father's social class. The last available analysis of the Czech situation, however, indicates a substantial reduction in the odds of the offspring of unskilled and semi-skilled labourers compared to the offspring of other social classes [Matějů, Řeháková, Simonová 2007]. An earlier analysis which used a different set of data and a different methodology concluded that the father's class still carried the same weight, but his education played a greater part (which is corroborated also by our research, as we will demonstrate later). As regards the overall inequality in access to tertiary education, our research found that it has not changed at all or has changed very marginally since 1989, compared to the generations which went on to university in the 1970s and 80s. The bottom line is that the results of various analyses do not point clearly in one direction. It is therefore necessary to view the transition from secondary school to university through the prism of the latest data. We will be able to corroborate either the earlier findings, claiming that educational reproduction in the Czech Republic is increasing and the system of education is becoming more exclusive, or those conclusions that reflect the opposite – a situation with strengthening mechanisms of upward mobility. It will also be interesting to see how the Czech Republic fares in comparison with other countries.

1 Detailed explanation of legislative changes in the Czech tertiary education system, including their qualitative and quantitative implications – Matějů, Simonová [2003] and Simonová, Antonowicz [2006].

4. Overall Trend in Educational Inequality in the other Four Compared Countries

As we already stated above, the countries we chose for comparing to the Czech Republic were chosen in anticipation of interesting variations. Poland, a former Eastern Bloc country, was chosen to see whether a country that shares a political history with the Czech Republic would have the same mechanism of educational reproduction and the same degree of educational inequality, especially as a large part of the Polish university sector has been privatised. Switzerland was chosen for its traditional political neutrality and advanced economy on the one hand, and for its differentiated system of education on the other. Germany[2] represents one of the countries with a system similarly differentiated formally to that of the Czech Republic; like Switzerland, Germany has a binary system of tertiary education. We chose Sweden for its long tradition of sophistication in its system of education, low level of inequality and diversified tertiary level.

All the countries that were subject to our analysis have had practically universal access to primary and lower secondary education since the end of the Second World War. Lower secondary education saw the biggest expansion, followed by higher secondary education; tertiary education was the least expanded. The decision whether or not to carry on the path of education has shifted towards the higher educational levels and it can be said that in all the countries we analysed, the principal decision to carry on or abandon the path of education is made on transition from the elementary to the secondary school, despite the fact that in Switzerland the first transition happens still within compulsory schooling (at 12 years of age). In the 1980s, all of the countries experienced a surge in demand for transition from secondary school to university, while university education still maintained its exclusive character. From earlier analyses of the trends in educational inequality which used the method of OLS regression (examining how social background influences the level of achieved education) and the transitive method (examining how social background influences a specific transition), we now know that in all but a few countries educational inequalities remain more or less at the same level [Shavit, Blossfeld 1993; Shavit, Arum, Gamoran 2007].

2 In the case of Germany we used the data from the Western and Eastern parts of the country together. The reasons were mostly pragmatic. A separate analysis would not be useful or practical given the size of the sample (division into cohorts, the father's education and the respondent's gender). Moreover we think that especially in the last cohort, the pattern of dependency between the variables in both parts of Germany would be very similar. This hypothesis warrants examination in its own right. However, that is not possible with our data.

In former Czechoslovakia, the factor of the father's education weakened only temporarily, at the beginning of Socialism, and then began to increase in importance again [Matějů 1993]; at present it seems that the gap between the chances of children from the lowest status families and children from the highest status families is widening [Matějů, Řeháková, Simonová 2007]. Out of all the analysed countries, only Sweden reported an inter-cohort decrease in the effect of the father's education and occupation on the level of education achieved by the offspring, and on transitions within the system of secondary education [Jonsson 1993]. This contradicts the MMI theory – despite the fact that the higher classes were not completely saturated in their access to the secondary level, the association still decreased. Likewise, only Sweden showed a longer-term decrease in access to the tertiary level [Jonsson, Erikson 2007]. It is quite interesting to note that the authors ascribe the decreasing inequality to the equalisation of living conditions – both in terms of cultural capital and material resources, which has led to the gradual eradication of class differences. This is contrary to the experience of the Socialist countries, in our particular case Poland [Heyns, Bialecki 1993] and Czechoslovakia [Matějů 1993]. These countries, considering their demographic development, saw very little, if any expansion of their tertiary education systems.

In the majority of the analysed countries, there was a significant differentiation of educational tracks within the secondary schooling system; vocational courses as an alternative to more academic streams in secondary education. This has restricted higher education largely to the higher social classes. When examining the transition to university, the social background effect worked in the other direction only in Switzerland, where the father's education especially plays a large role particularly in transition to university [Buchmann, Charles, Sacchi 1993; Buchmann et al. 2007]. University education is seen as very exclusive, which Switzerland has in common with the Czech Republic. With the exception of Switzerland, the social background effect was always the strongest at the outset of the educational path and diminished with each subsequent transition. In Sweden [Jonsson 1993] and in Germany [Blossfeld 1993], the social background factor on transition to tertiary education was almost undetectable. With the exception of Sweden [Jonsson, Erikson 2007] and Germany [Mayer, Muller, Pollak 2007] again, no other country in the examined pool recorded a change in the strength of the background factor in educational transitions – the only increase occurred in the male category on transition to university in Switzerland.

A positive trend of the second half of the twentieth century, which was demonstrated in all the analysed countries, was a substantial equalisation in the average education achieved by men and women. In some respects the women outperformed the men; to be precise, the women's disadvantage turned into an advantage over men from lower class families. Sweden experienced less discrimination of girls in families [Jonsson 1993], and in the post-Socialist countries boys, unlike girls, frequently took advantage of the option of vocational courses without the leaving examination. Only in Germany men have maintained their advantage over women in their access to post-secondary education [Mayer, Muller, Pollak 2007].

Table 1. Upper secondary graduation rates and entry rates to tertiary education in five European countries in 2006 (in %)

Country	Switzerland	Czech Republic	Germany	Poland	Sweden
Educational level					
			SECONDARY:		
Upper secondary graduates (ISCED 3A)	26	59	40	85	75
General programmes	30	18	40	59	34
Pre-vocational/ vocational programmes	69	72	63	36	42
			TERTIARY:		
Tertiary type A net entrance	38	50	35	78	76
			SELECTION AGE:		
Age of pupils at first selection	12 years	11 years	10 years	15 years	16 years

Sources: Education at a Glance 2005 and Education at a Glance 2008. OECD Indicators. Paris: OECD.

To illustrate the basic differences between the analyzed countries, table 1 shows briefly,[3] how many students finish secondary education and access tertiary education in individual analyzed countries in 2006. Concerning upper secondary graduation rates, i.e. graduates of study programmes designed to prepare for direct entry to tertiary type-A education (bachelor or master study programmes), Poland and Sweden were revealed to be the most productive in this respect. The percentage of upper secondary graduates (category ISCED 3A) in the population at the typical graduation age reaches 85% in Poland and 75% in Sweden, compared to only 26% in Switzerland. These numbers demonstrate that Switzerland, the Czech Republic and Germany are among the countries with differentiated educational systems and Poland and Sweden, on the contrary, have undifferentiated systems. At the same time, the table shows the proportion of students attending general programmes: the smallest numbers are again in the Czech Republic (18%) and Switzerland (30%). In line with the opposite point

3 Even though these are the official numbers taken from international OECD statistics, the reader could be confused when trying to combine them. The problem is caused by the difficult international comparison of different educational systems and also by ISCED categories, which sometimes produce incomparable numbers.

of view, these are the countries which have the biggest rate of pre-vocational and vocational students (69 and 72%). Tertiary type-A net entry rates are the most positive in Poland and Sweden, reaching more than 75%, whereas the lowest are in Germany and Switzerland. As we will show later in this text the influence of different aspects of social background takes place, quite surprisingly, inside the identified groups of states, i.e. regardless of these general statistics. Therefore, we will show that although Germany and Poland do not seem to have much in common in terms of graduation and entry rates, the opposite is true with respect to the influence of social background. The same can be stated in the case of a comparison between the Czech Republic and Sweden or Switzerland and Sweden. For further illustration, the last indicator in the table shows the age of the first selection of pupils (no matter how exclusive the subsequent school). Again, Switzerland, the Czech Republic and Germany demonstrate the same trend, in this case earlier selection (10–12 years) than Poland and Sweden (15–16 years).

5. Data, Methodology and Strategy of the Analysis

We used logit models of educational transitions to determine the effect of social background on the transition between completed secondary education and tertiary education in the Czech Republic since 1989 (and a comparison with four other European countries). We used the data from the European Social Survey (ESS) from 2004[4] and created a pool comprising the Czech Republic, Germany, Poland, Sweden and Switzerland. The number of respondents in individual countries and cohorts we created for the analysis is shown in Table 2. We used the following variables: respondent's age, gender, the highest level of education achieved,[5] the father's education and EGP at fourteen years of age of the respondent. We created 3 cohorts that reflect the modern history of the Czech Republic:[6] 1. 1955–1970; 2. 1971–1989; 3. 1990-2002. We translated the highest achieved education of the respondent and the father[7] into the following three categories: 1. lower secondary or less; 2. higher secondary; 3. tertiary education. We translated the father's class status into four categories using the generally accepted Goldthorpe class schema [Erikson, Goldthorpe 1992] as follows: 1. UW (unskilled or semi-skilled manual work); 2. MW (skilled manual work and trades, farming); 3. NM (office and other white collar work at middle level); 4. PROF (traditional and modern professionals, top, middle and low level management, civil servants). We compared two generations from the pre-1989 period (i.e. before the fall of Communism in the Czech Republic and in Poland) and one of the youngest generations (the post-Socialist generation in Poland and in the Czech Republic). We therefore covered the whole period from 1955 to 2002, the year with the most recent data. The cohorts were born between 1937–1984 and reached 18 years of age in 1955–2002.

4 European Social Survey (ESS) is an international survey that is carried out every two years in more than 30 countries worldwide. The first ESS was run in 2002/2003, the second in 2004/2005 and the latest in 2006/2007.

5 The youngest respondents, whose present social status was *student,* who had completed their secondary education and were twenty years old or older, were given the status of "university graduate".

6 We consulted historian Prof. Jan Křen from IMS FSV UK, Prague, when creating the period categories reflecting Czech history.

7 A considerable restriction attached to using the international data was that almost all ESS respondents had ISCED secondary education, without any way of discerning whether it was a complete secondary course (eligible for transition to university) or a course that does not finish with a leaving examination (non-eligible for transition to university). We took this into account when interpreting our results.

Table 2. Numbers of respondents in cohorts – having reached 18 years of age – in five European countries[8]

Country	Switzerland	Czech Republic	Germany	Poland	Sweden
Cohort					
1955-70	496	805	723	334	504
1971-89	794	991	1036	567	622
1990-2002	356	533	394	409	340
Total (n)	1,646	2,329	2,153	1,310	1,466

Source: ESS 2004.

We used the logit models to simulate the effect of social background (the father's education and EGP) and the respondent's demographics (gender and year of birth, i.e. the cohort) on the respondent's transition from complete secondary education to university. The aim here was to determine the likelihood of the monitored phenomenon, i.e. successful transition to university (and secondary school), and to find variables that would shed most light on the phenomenon (and determine their effect). We followed the logic that the father's education or social class and the respondent's gender and cohort can influence the final education of the respondent. This logic is included in logit models where one variable is dependent, others are independent and all variables are categorical (this was also our case). As a side exercise, we also analysed the transition from primary to secondary school. The dependent (explained) variable in the model was the dichotomic variable of success in the transition to university (1 = passed, 0 = failed). The father's education (FED), his social class (F_EGP4), the respondent's gender and cohort were the independent variables. As a side exercise, we also analysed the transition from primary to secondary school. Because, however, in the case of the first transition the resulting model was only suited to the Czech data, we show only the Czech model.

The likelihood of a successful transition to university was modelled using logit equations. The first contained only the main effects and the other models tested the importance of interactions between the variables. We compared the models using the rules of statistical inference based on L^2 (Likelihood ratio) and X^2, and we also used the effective degrees of freedom. The higher the values of L^2 and X^2, the more suitable is the model for the data. As the suitability of the model is influenced also by the number of parameters, or the number of degrees of freedom (df), respectively, we used the ratio L^2/df in selecting the model, taking into account also its significance (sig). The significance value should be the highest, so that the hypothesis on the suitability of the model for the data is rejected. After evaluation of the models, we also tested the statistical significance of the individual model parameters and against the adjusted residues, including a test of how these approximate to the normal division. In the part of our analysis dedicated to the Czech Republic, we tested four models of the likelihood of success in transition to university.

8 The number of analysed cases in logit models is slightly lower than is shown in the table as sometimes information about the father's education or EGP is lacking. This decreases the number of analysed cases by about 10%.

a) The basic model (M I), without double interactions with a variable father's education:

log (P(UNI)/ p(non-UNI)) = constant + gender + FED + cohort,

where the gender was coded as 0 = male, 1 = female; FED (father's education) was coded as 1 = lower secondary or lower, 2 = higher secondary, 3 = tertiary, and the cohort was coded as 1 = respondent reached 18 years of age in 1955–70, 2 = respondent reached 18 years of age in 1971–89 and 3 = respondent reached 18 years of age in 1990–2002.

b) For more complex deliberations we also tested another model (M II), which was based on the hypothesis that the relationship between the father's education and the child's success in transition changed between the cohorts, and that the relationship between the respondent's gender and success in the transition was different in different cohorts. It was this model which incorporated double interactions:

log (P(UNI)/ p(non-UNI)) = constant + gender + FED + cohort + cohort*FED + cohort*gender.

c) The other model (M III) worked with the variable of the father's social class (F_EGP4) instead of his education (FED); the model did not contain any double interactions (neither did M I):

log (P(UNI)/ p(non-UNI)) = constant + gender + F_EGP4 + cohort,

where F_EGP4 was coded as: 1 = unskilled manual work (UW), 2 = skilled manual work (MW), 3 = non-manual workers (NM) and 4 = professionals (PROF).

d) We also tested a more complex model (M IV) which again contained double interactions. The model's hypothesis was that the relationship between the father's class and the child's success in transition was different in different cohorts, and that the relationship between the respondent's gender and success in transition was different in different cohorts. The model containing double interactions used this equation:

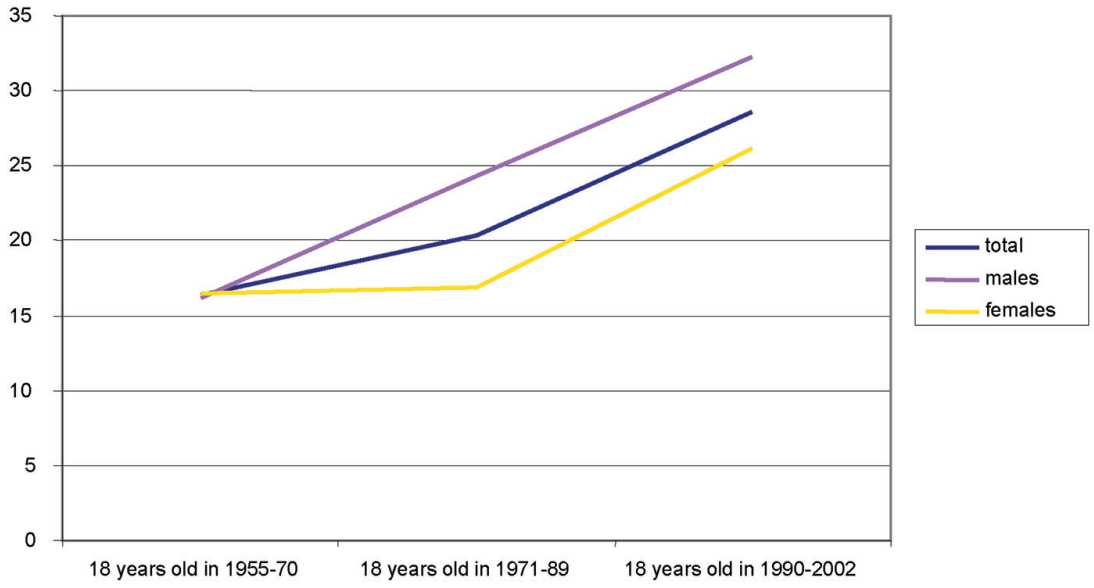
log (P(UNI)/ p(non-UNI)) = constant + gender + F_EGP4 + cohort + cohort*F_EGP4 + cohort*gender.

For international comparison we used in every case only that model from each pair (M I vs. M II and M III vs. M IV) that proved more suitable for the Czech Republic. We wanted to establish whether the models created using the Czech context could be used to model the situation in other countries, and to what extent the Czech situation is different from that of other countries. We used the procedure GENLOG in the software application SPSS 15.0. Unlike the previous procedure, LOGLINEAR does not distinguish between contrasts (hence also non-linear effects of independent variables), but contains adjusted residuals which are better for suitability diagnosis of a model than the standardized residuals that the previous SPSS version gave. We were aware that if the variable is the father's education, it could happen that a non-linear contrast could be more suitable for modelling; it would however require further analysis.

6. Results

Our analysis set out to find the best model describing the relationship between the variables "father's education", "father's social class", "respondent's gender" and "respondent's cohort", and to test the hypothesis in the Czech Republic and the other selected countries; Switzerland, Sweden, Germany and Poland. We looked for an answer to the question if and how the father's education influences the odds of the offspring to succeed in the transition from secondary school to university, and what role is played by the father' s social class (for a detailed description of the models please refer above). Firstly, we will look at how the chances for success in the transition to university developed in the Czech cohorts – mixed gender, male and female separately (Figure 3).

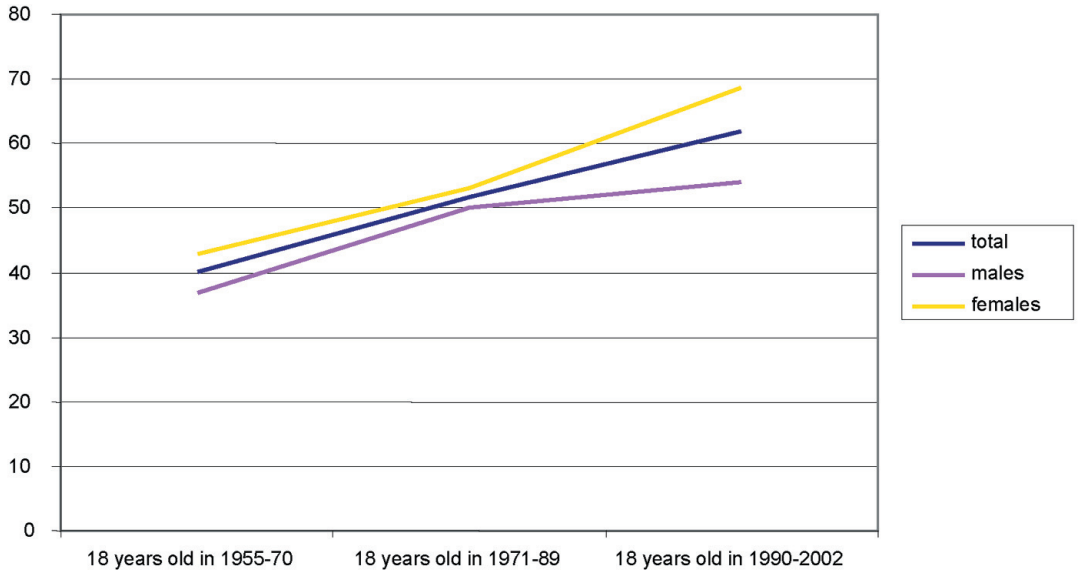
Figure 3. Trend in the percentage of secondary school leavers admitted to university (succeeded in the second transition) in the Czech Republic (by cohort) – in %



Source: ESS 2004, Czech data.

As evident from Figure 3, the Czech Republic experienced an overall increase in the proportion of those who succeeded in the transition from secondary school to university. Between the first and second cohorts the increase was only in the male category, but in the cohort admitted to university after 1989 we see a substantial increase in females, too. Overall, the success rate of women is still lower than that of men. For the sake of completeness we show the same data for the first transition, i.e. the transition from primary school to a secondary school with a leaving examination, which is the pre-requisite (one could say a sort of filter) for success in the subsequent transition (Figure 4).

Figure 4. Trend in the percentage of primary school leavers admitted to a secondary school with a leaving exam (succeeded in the 1st transition) in the CR (by cohort, in %)



Source: ESS 2004, Czech data.

In the case of the first transition, the proportion of successful students grew during the whole period of review. The growth was more evident in women than in men between the second and third cohorts. After evaluating the information from Figure 3 and Figure 4, it is clear that women are more successful in the first transition and less successful in the second. Owing to this fact, the difference in the percentages of male and female university graduates is diminishing.

Because in the Czech Republic – as in the majority of systems of education – admission to university is not automatic and requires the formal completion of a lower level of education, the issue had to be taken into account analytically. We concentrated also on finding an optimal model for the transition from primary school to a secondary school that would enable transition to university. We first tested the model on Czech data. We used the logit model with a dependent variable "studied (studies) at a secondary school with a leaving exam" (a condition for university in the Czech Republic), whereas the independent variables were the same as in the second transition

model: father's education, cohort and gender. We used two models – the first working only with independent variables without interactions, the second taking into account the differences due to the effect of the father's education on the first transition across the cohorts. With respect to the model's characteristics (especially the overall test and adjusted residuals), we can conclude that the latter model (with interactions between the cohort variable and father's education) is more suitable for describing the first transition (Tables 3 and 4).

Table 3. The fit statistic (LR) for models applied to the 1st transition

Model	Model A		
Statistical criteria	**value**	**df**	**sig.**
CR (full educational classification)	9.630	8	0.292
CR (ISCED classification)	21.508	12	0.043
Switzerland (ISCED)	12.834	12	0.381
Germany (ISCED)	17.330	12	0.138
Poland (ISCED)	25.076	12	0.014
Sweden (ISCED)	27.749	12	0.006

Source: ESS 2004.

Table 4. Parameters of estimates for the transition between primary and secondary education in the Czech Republic (B, S.E., sig, exp(b))[9]

	Model A			
	B	**S.E.**	**sig.**	**exp(b)**
[tran1cz = 0] * [fed = 1]	-0.09	0.12	0.44	0.91
[tran1cz = 0] * [fed = 2][10]	-1.04	0.17	<0.01	0.35
[tran1cz = 0] * [fed = 3]	-2.34	0.40	<0.01	0.10
[tran1cz = 0] * [cohort = 1]	0.53	0.68	0.44	1.69
[tran1cz = 0] * [cohort = 2]	0.35	0.55	0.53	1.42
[tran1cz = 0] * [gender = 0]	0.32	0.09	<0.01	1.38
[tran1cz = 0] * [cohort = 1] * [fed = 1]	0.15	0.69	0.83	1.16
[tran1cz = 0] * [cohort = 1] * [fed = 2]	-0.96	0.74	0.19	0.38
[tran1cz = 0] * [cohort = 2] * [fed = 1]	0.05	0.57	0.93	1.05
[tran1cz = 0] * [cohort = 2] * [fed = 2]	-0.96	0.61	0.11	0.38

Note: "tran1cz = 0" implies a failed transition.
Source: ESS 2004, Czech data.

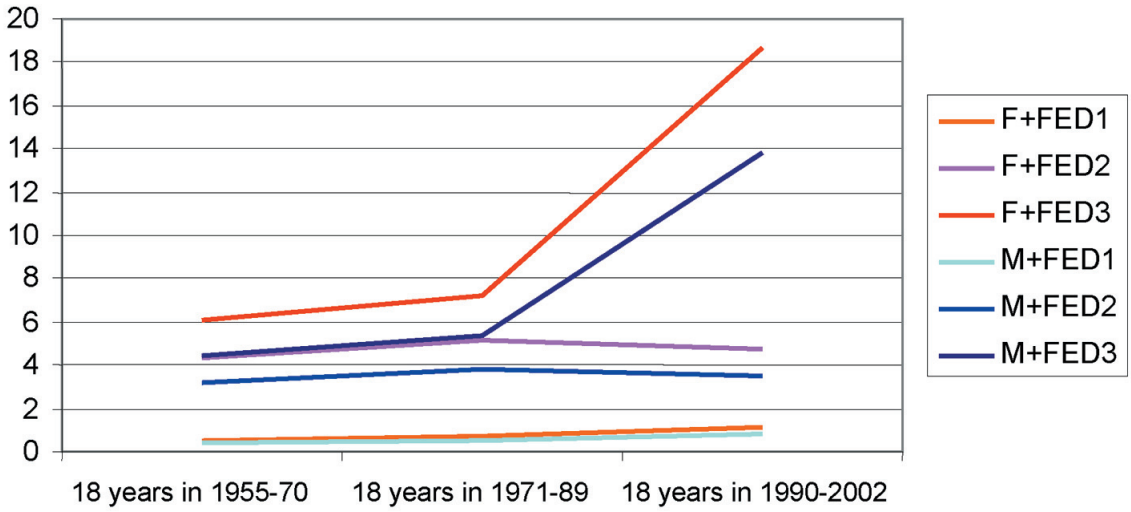
9 Note: Tables 3, 5, 7 and 9 display the statistical criteria values for all three categories of FED (father's education) and all four categories of EGP (father's class). SPSS calculates the chances (their logarithm) for all categories of the variable that enters the model as the first. The chance after exposure and the likelihood ratio are calculated by the quotient of these two chances.

The deduction is that the odds of a successful first transition increase with time; there is also an inter-cohort development of the chances – different for boys and girls. Girls and persons with better educated fathers stand a better chance of succeeding. To be specific, the odds ratio of women to men in respect of the first transition is 1.4 times greater; the youngest cohort has 1.4 times better odds than the middle cohort and 1.6 times better odds than the oldest cohort (these ratios are statistically insignificant, non-provable and cannot be generalised to the whole population). Naturally, the father's education plays a great part in the success of the first transition (Figure 5); a child of a university graduate has 3.5 times better odds than a child of a secondary school leaver, and 9 times better odds than a child of a father who did not pass a secondary school leaving examination (these results can be reached by this calculations: 1/(0,1/0,35) = 3,5 and 1/(0,1/0,91) = 9,1).[11] To be precise concerning the evolution over time, we can say that if we compare the offspring of university educated fathers with the offspring of secondary school leavers between the youngest and the oldest cohort, the odds of the most privileged group was almost 3 times higher during 1990–2002 than between 1955–1970. Analogously, this difference between the children of university educated fathers and children of fathers with lower secondary education stays almost the same between 1955 and 2002. When we look at the difference between the middle Socialist period and the post-Socialist period, the results simply copy the differences described above: the odds ratio between the offspring of university educated fathers and the offspring of secondary school leavers was almost 3 times higher during 1990–2002 than between 1971 and 1989. Last but not least, this difference between the children of university educated fathers and children of fathers with lower secondary education again remains almost the same between 1971 and 2002.

10 SPSS procedure for log-linear models computes parameters for all categories of first variable (in our case father's education) and for analytical purposes it is necessary to compute the ratio between two parameters (e.g. parameters for FED3/FED2= -2.34/-1.04=2,25). For other variables one last category is omitted and serves as a reference category (e.g. in the case of cohort1, the parameter 0,53 is the ratio for parameter of cohort1/cohort3, as cohort3 is the reference category).

11 These expressions 1/x are influenced by the logic of results in SPSS. SPSS compares the first category (failure in transitions) to the second category (success) but we would like to compute the opposite ratio (success to failure) so it is necessary to invert the value by the expression 1/x.

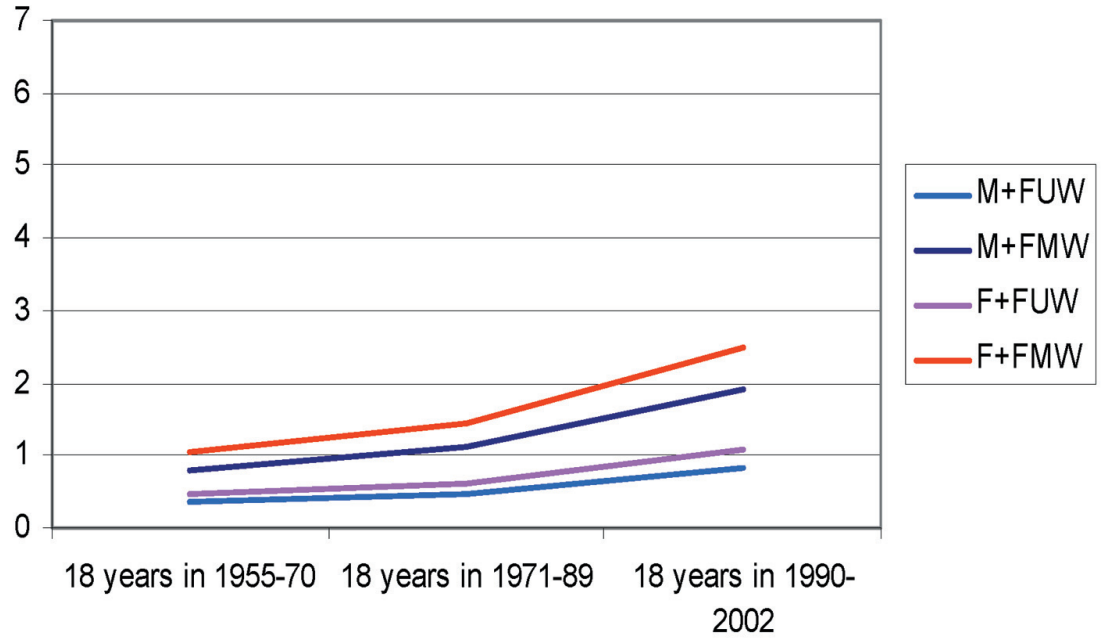
Figure 5. Odds of success in the first transition according to child's gender and father's education in the CR



Source: ESS 2004, Czech data.

The graph in Figure 5 clearly illustrates that the chances of children with less educated fathers of success in the first transition were much lower than those of children with university educated fathers in the period under review, and in the last cohort (persons who reached 18 years of age after 1989) the difference has grown substantially. By contrast, in the last cohort the chances of children with parents who did not complete their secondary education were reduced. This applies similarly to boys and girls; girls in the last cohort were somewhat more successful in the second transition than the boys (we know from official statistics that there are more girls than boys finishing secondary schools with a leaving examination). In the case of gender, in all pairs of boys and girls with fathers with equal education, boys were less successful in this first transition than girls. The biggest difference was revealed in the last cohort, i.e. after the fall of Socialism, between girls and boys with professional fathers. This difference is probably caused by the structure of secondary education (specialisations of study fields forcing boys to go to vocational schools and girls to general programmes) and also by personal characteristics, which in case of girls are better suited to the nature of admission exams (i.e. they focus more on good marks and are more thorough and conscientious).

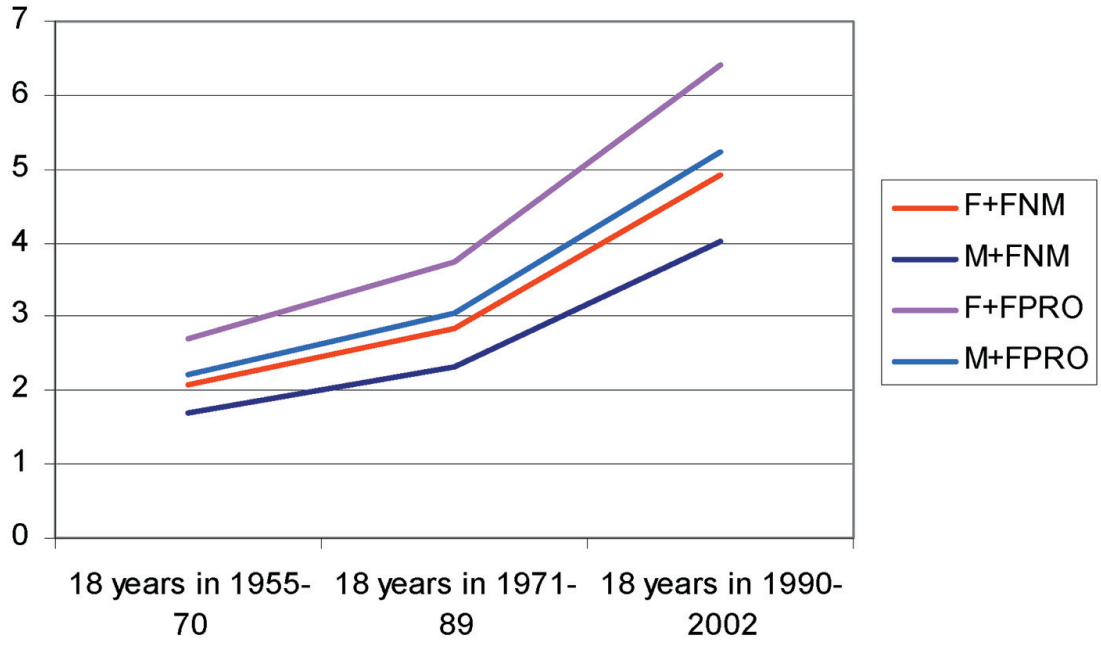
Figure 6. Odds of success in the first transition according to gender and father's EGP (unskilled manual workers = UW and skilled manual workers = MW)



Source: ESS, Czech data.

If we focus on the effect of the father's social class (EGP), we arrive at the same conclusions as when analysing the effect of the father's education on the chances in the first transition. The higher the father's class status, the higher chances his offspring has of succeeding. These chances also increase over time, especially for children with fathers from the highest status categories; non-manual workers and professionals. The graphs in Figures 6, 7 and 8 confirm again that girls who have fathers of higher social status have better chances than boys with fathers of a similar social standing. To conclude, in the long-term perspective the chances of entering a secondary school with leaving examination "(*maturita*)" grew steadily from 1955 to 2002 among workers' offspring, more significantly after the fall of Socialism and in the case of girls.

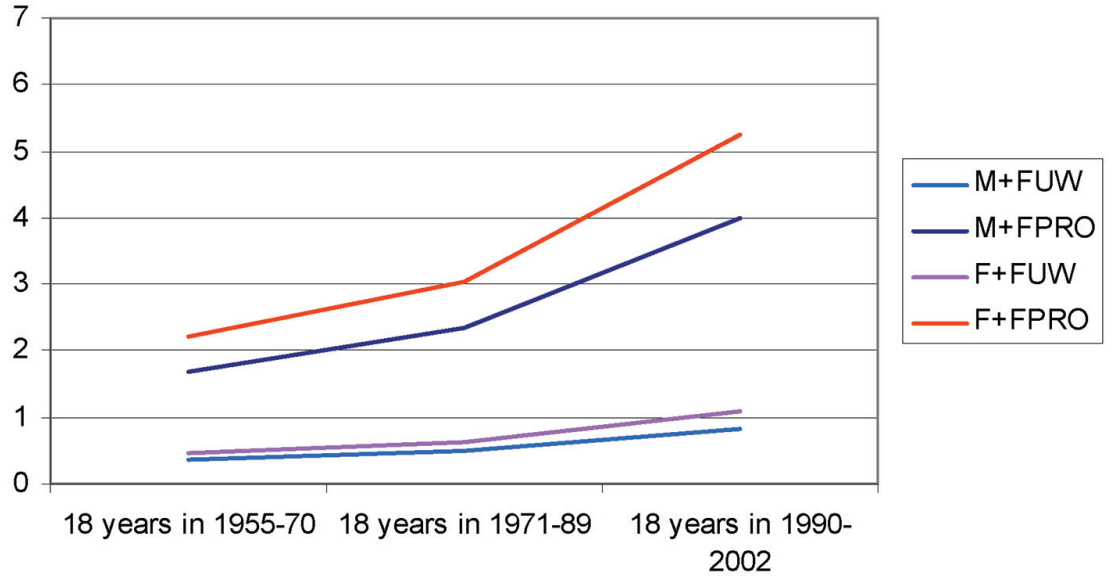
Figure 7. Odds of success in the first transition according to gender and father's EGP (non-manual workers = NM and professionals = PROF)



Source: ESS, Czech data.

When comparing the two extreme groups (i.e. fathers from the highest professionals (PROF) class and fathers from the unskilled manual workers (UW) class), the difference becomes even more apparent, especially in the last cohort, where the chances of daughters and sons with high-status fathers increase, whereas the chances of children with the lowest status fathers remain low. The difference in the chances between offspring of these two extreme groups (UW and PROF) of passing through the first transition was greatest in comparison to the first two combinations we looked at (unskilled manual workers (UW) and skilled manual workers (MW) in Figure 6, and non-manual workers (NM) and professionals (PROF) in Figure 7) – the difference could almost be qualified as abysmal (Figure 8). Overall, one could say that the chances of making the first transition increase for the offspring of all fathers over time, albeit disproportionately.

Figure 8. Odds of success in the first transition according to gender and father's EGP (unskilled manual workers = UW and professionals = PROF)



Source: ESS, Czech data.

It would of course be good to use a similar first transition model also for the other European countries in the study. The issue here is that the simple version of the model cannot be applied to these countries. It would be the same in the case of international data for the Czech Republic (fortunately we had the original variable telling us the respondent's education). We have run into the problem of international data which uses ISCED classification instead of the variable indicating the level of education needed for transition to the tertiary level. For this reason, the ESS data for the Czech Republic does not allow for making a distinction between complete and incomplete secondary education (with/without the school leaving examination). The model for the first transition that we described above hence loses its point and does not work even statistically. A similar situation exists in other countries, too.

Let's now focus on the question of whether the father's education or social class played any part in the success of the second transition, and whether this factor changed in any way in different cohorts. The first model that we tested worked on the premise that the likelihood of this transition changed in different cohorts, yet the effect of the father's education was stable in all cohorts and the variations between men and women remained more or less constant. The second model, on the other hand, anticipated that the effect of the father's education and the respondent's gender on the success of the transition was different in different cohorts. Table 5 summarizes the results of both models.

Table 5. The fit statistics for models I and II applied to the Czech Republic

Model	Model I			Model II		
Statistical criteria	**value**	**df**	**sig.**	**value**	**df**	**sig.**
Likelihood Ratio	12.54441	12	0.403005	1.907767	6	0.927983
Pearson Chi-Square	12.39498	12	0.414502	1.918899	6	0.927004

Source: ESS 2004, Czech data

The summary statistics of both models seem to suggest that the model with interactions (M II) is better at describing the data. Also, the adjusted residuals are lesser in this case (not shown in the table). It is however important to also test the individual model parameters for significance before we decide whether Model II is better for the data than Model I. Table 6 summarizes the model parameters and their characteristics. The table illustrates that all triple interactions (or double interactions of independent variables) have a first type error which is too great; the hypothesis of their zero character cannot be refuted. The significance testing of individual parameters seems to suggest that Model I would be simpler to apply, as all its variables are statistically significant, meaning that all variables contribute to an explanation of the variability of the dependent variable "success in transition".

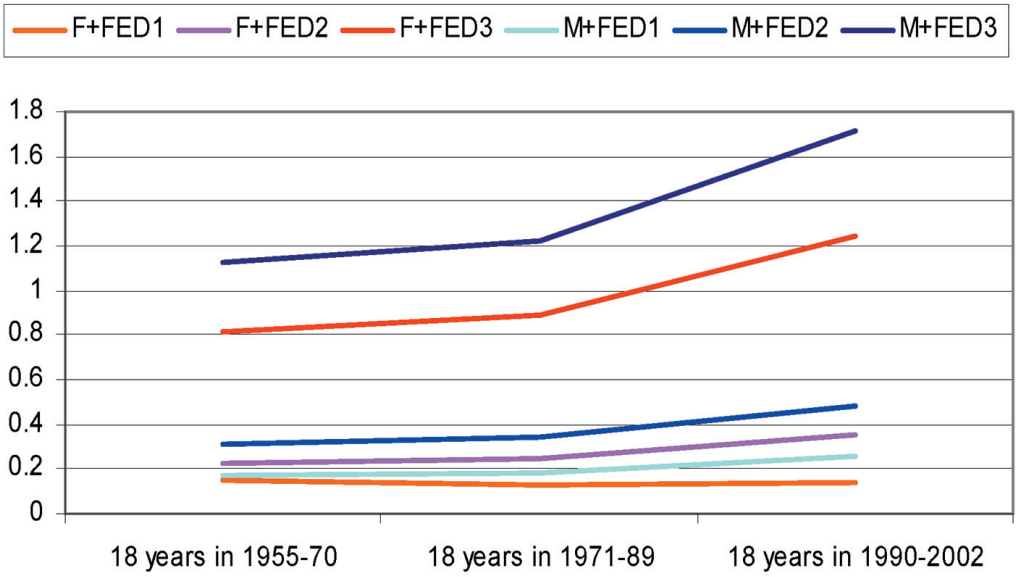
Table 6. Parameters of estimates of models I and II for transition between complete secondary and tertiary education in the Czech Republic (B, S.E., sig, exp(b))

	Model I				Model II			
	B	**S.E.**	**sig.**	**exp(b)**	**B**	**S.E.**	**sig.**	**exp(b)**
[tran2cz = 0] * [fed = 1]	1.66	0.18	<0.01	5.26	2,11	0,29	<0,01	8,27
[tran2cz = 0] * [fed = 2]	1.05	0.18	<0.01	2.86	0,81	0,24	<0,01	2,26
[tran2cz = 0] * [fed = 3]	-0.22	0.22	0.31	0.80	-0,32	0,31	0,30	0,72
[tran2cz = 0] * [cohort = 1]	0.42	0.20	0.04	1.53	0,38	0,55	0,49	1,47
[tran2cz = 0] * [cohort = 2]	0.34	0.18	0.06	1.40	0,61	0,44	0,16	1,84
[tran2cz = 0] * [gender = 0]	-0.32	0.16	0.04	0.73	-0,35	0,28	0,21	0,70
[tran2cz = 0] * [cohort = 1] * [fed = 1]					-0.59	0.62	0.34	0.62
[tran2cz = 0] * [cohort = 1] * [fed = 2]					0.09	0.62	0.88	0.62
[tran2cz = 0] * [cohort = 2] * [fed = 1]					-0.88	0.52	0.09	-0.88
[tran2cz = 0] * [cohort = 2] * [fed = 2]					0.30	0.50	0.55	0.30
[tran2cz = 0] * [cohort = 1] * [gender = 0]					0.44	0.42	0.29	0.44
[tran2cz = 0] * [cohort = 2] * [gender = 0]					-0.14	0.37	0.72	-0.14

Note: "tran2cz = 0" implies a failed transition.
Source: ESS 2004, Czech data.

The results of Model I allow us to conclude that the variable "father's education" had a positive influence in the respondent's success in transition; the odds ratio of offspring of university-educated fathers to the offspring of fathers who did not complete their secondary education (failed the leaving examination) was 6.6 (see the likelihood ratio of the first to the third row in the exp (b) column of Model I). The odds ratio of offspring of university-educated fathers to the offspring of fathers with complete secondary education (passed the leaving exam) was approximately half the foregoing: 3.6 to be precise. The positive effect in the "gender" variable worked for the male category – their likelihood of success in transition to university is 1.4 times higher than for females (their likelihood is 1/0.73). As for the time frame, we can conclude that the probability of the second transition has grown from cohort to cohort. In the first cohort (the oldest, reaching majority and continuing to university between 1955–70), it was 1.5 times lower than in the third and last cohort (the youngest, reaching majority in 1990–2002), in the middle cohort (continuing to university between 1971–1989) it was 1.4 times lower than in the youngest cohort (which was our benchmark). Figure 9 illustrates the increasing probability of success on an inter-cohort basis by father's education.

Figure 9. Probability of success in the second transition by respondent's gender and father's education in the Czech Republic according to M I



Source: ESS 2004, Czech data.

In our other models we tried to capture the factor of the father's social class (his EGP). Again, we started with the simpler model with no interactions between independent variables, and later we introduced interactions into the equation. Table 7 recapitulates the overall characteristics of suitability of models III and IV.

Table 7. The fit statistics for models III and IV for the Czech Republic

Model	Model III			Model IV		
Statistical criteria	**value**	**df**	**sig.**	**value**	**Df**	**sig.**
Likelihood Ratio	18.32718232	17	0.368487	6.600282	9	0.678657
Pearson Chi-Square	18.70584948	17	0.345675	6.755562	9	0.662552

Source: ESS 2004, Czech data.

Overall, the models fared somewhat worse than the previous models I and II. We concluded that the factor of the father's social standing in the child's success in the second transition is weaker than the factor of the father's education. The overall characteristics suggest that the model with independent variable interactions is more suitable. But, from previous experience with Model II, we already know that the interaction between the gender and the cohort does not carry significant statistical implications. Table 8 summarizes the results for parameter estimates for models III and IV.

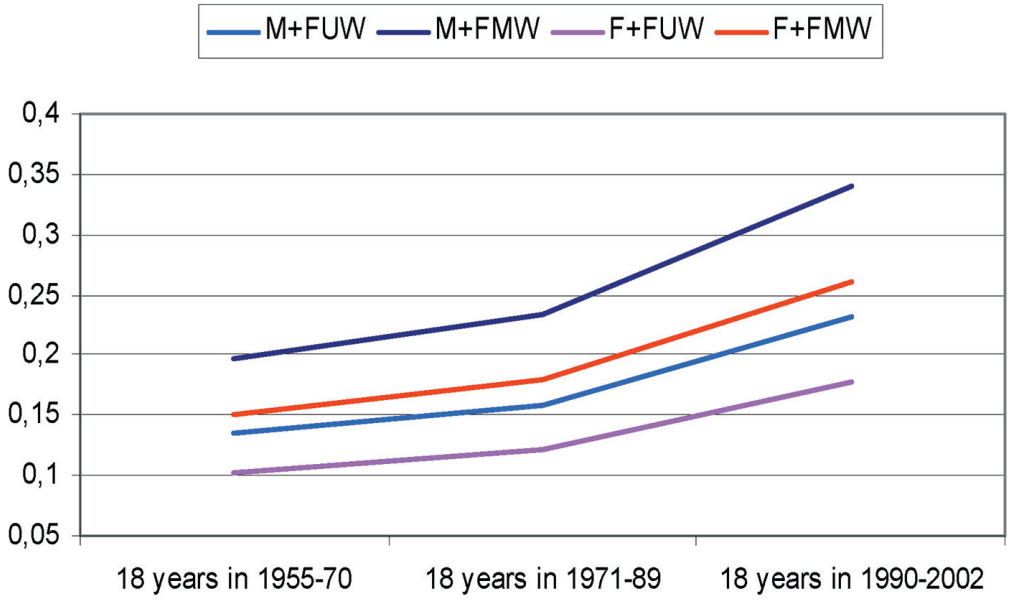
Table 8. Parameters of estimates for models III and IV for the transition between higher secondary and tertiary education in the Czech Republic (B, S.E., sig, exp(b))

	Model III				Model IV			
	B	**S.E.**	**Sig.**	**exp(b)**	**B**	**S.E.**	**Sig.**	**exp(b)**
[tran2cz = 0] * [egp4 = 1]	1.73	0.22	<0.01	5.66	2.18	0.36	<0.01	8.87
[tran2cz = 0] * [egp4 = 2]	1.35	0.20	<0.01	3.84	1.37	0.27	<0.01	3.93
[tran2cz = 0] * [egp4 = 3]	0.58	0.29	0.05	1.78	1.14	0.62	0.07	3.14
[tran2cz = 0] * [egp4 = 4]	0.47	0.19	0.01	1.60	0.25	0.25	0.32	1.29
[tran2cz = 0] * [cohort = 1]	0.54	0.21	0.01	1.72	0.55	0.38	0.15	1.74
[tran2cz = 0] * [cohort = 2]	0.38	0.19	0.05	1.46	0.97	0.36	0.01	2.63
[tran2cz = 0] * [gender = 0]	-0.27	0.16	0.10	0.76	-0.38	0.29	0.19	0.68
[tran2cz = 0] * [cohort = 1] * [egp4 = 1]					-0.98	0.56	0.08	0.37
[tran2cz = 0] * [cohort = 1] * [egp4 = 2]					-0.06	0.53	0.91	0.94
[tran2cz = 0] * [cohort = 1] * [egp4 = 3]					-0.44	0.85	0.60	0.64
[tran2cz = 0] * [cohort = 2] * [egp4 = 1]					-0.93	0.53	0.08	0.39
[tran2cz = 0] * [cohort = 2] * [egp4 = 2]					-0.54	0.47	0.25	0.58
[tran2cz = 0] * [cohort = 2] * [egp4 = 3]					-1.38	0.76	0.07	0.25
[tran2cz = 0] * [cohort = 1] * [gender = 0]					0.65	0.43	0.14	1.91
[tran2cz = 0] * [cohort = 2] * [gender = 0]					-0.17	0.39	0.67	0.85

Note: "tran2cz = 0" implies a failed transition.
Source: ESS 2004, Czech data.

The table again illustrates that all triple interactions (or double interactions of independent variables) have a first type error which is too great; the hypothesis of their zero character cannot be refuted. The significance testing of individual parameters suggests that Model III is more suitable; it is simpler and all its variables are statistically significant (except for "gender"). The results show that the variable "father's class" had a positive effect on the respondent's likelihood of success – the higher the father's rank on the EGP scale, the greater the odds of his child of making the transition to university. In more specific terms, the odds ratio of offspring of "professional" fathers and the offspring of "unskilled worker" fathers is 3.5 (5.66/ 1.6), which means that the odds of children of professionals in the competition for university education are almost four times higher. When we compare the offspring of professionals with other EGP categories, the ratios are: 2.4 to the offspring of "skilled workers"; 1.1 (equal) to the offspring of "non-manual workers". The cohort factor was the same as in Model I, i.e. the probability of success in the second transition increased on an inter-cohort basis.

Figure 10. Odds of success in the second transition according to gender and father's EGP (unskilled manual workers = UW and skilled manual workers = MW)

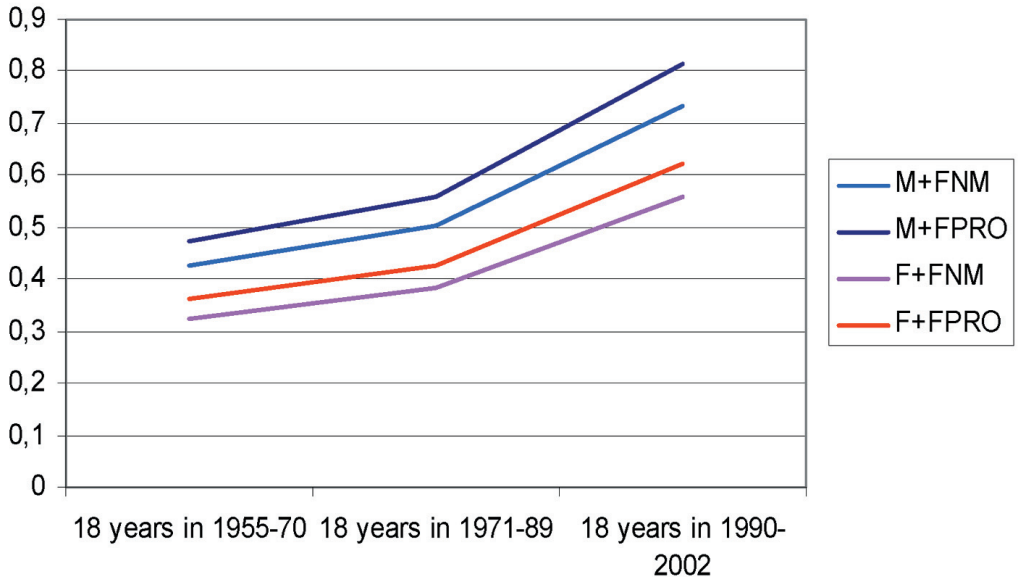


Source: ESS 2004, Czech data.

As the graphs in Figures 10, 11 and 12 show, the influence of social status (EGP) with respect to the second transition was also pronounced, as was the case in the first transition (compare Figures 6, 7 and 8 and the commentary below). The higher the status of the father, the higher the chances of transition to university. These chances grow over time – but especially for children with the higher status fathers. The graphs in Figures 10–12 illustrate the fact that – in contrast to the first transition

– girls have lesser chances than boys. This can be also postulated from the official statistics (there are more or less the same numbers of boys and girls at university, while more girls succeed in the transition to secondary schools – it is therefore logical that boys were more successful in the second transition). The chances of tertiary education for boys and girls with fathers of different status groups improve over time, but the proportionate differences between the chances of individual groups remain the same.

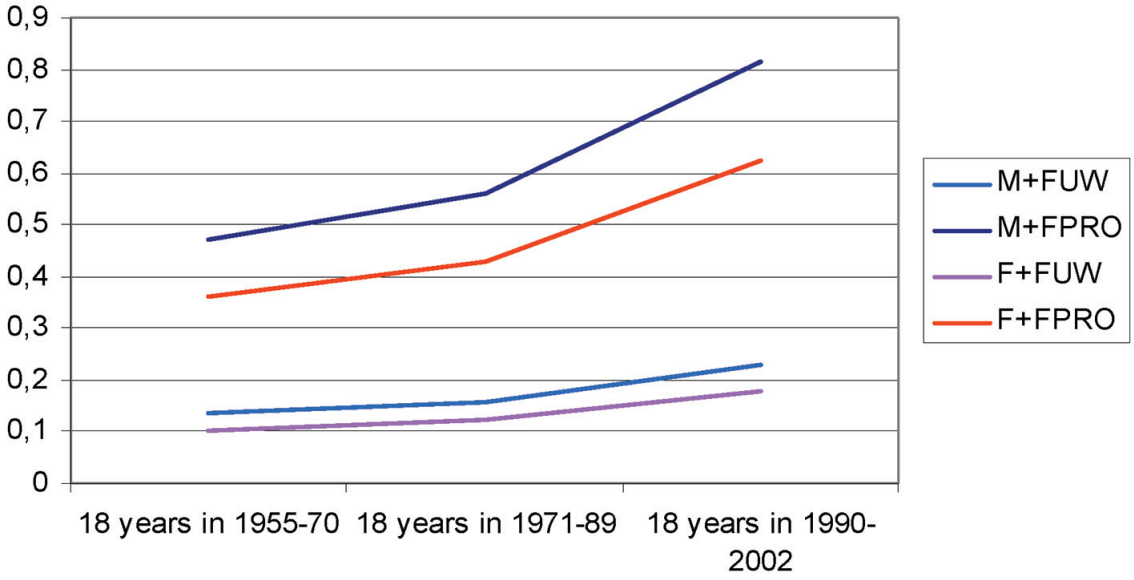
Figure 11. Odds of success in the second transition according to gender and father's EGP (non-manual workers = NM and professionals = PROF)



Source: ESS 2004, Czech data.

As was the case in the first transition, in the second transition also the fact is still true that the difference in the chances of the most extreme social groups – unskilled manual workers (UW) and professionals (PROF) – is most pronounced in comparison to that of more similar groups (UW and MW as captured in Figure 10, and NM and PROF as captured in Figure 11). And again as in the case of the first transition, the chances of passage from secondary school to university increase over time for the offspring of fathers from all social status groups, but the proportionate differences between the chances of individual groups remain the same. The improvement is almost imperceptible for children with fathers who are unskilled manual workers (UW) and very pronounced for children with fathers who are non-manual workers (NM) and professionals (PROF).

Figure 12. Odds of success in the second transition according to gender and father's EGP (unskilled manual workers = UW and professionals = PROF)



Source: ESS 2004, Czech data.

When we compare all four models, Model I seems to be the most suitable for explaining the trends in inequality of access to tertiary education in the Czech Republic. It is relatively simple, captures the basic dependencies and is statistically suitable. We decided to apply this model not just to the Czech Republic, but also to the other four countries. As the ESS 2004 data we used uses ISCED classification for the "education" variable (both for the father and the respondent), we converted the Czech data to this model. Given the fact that ISCED does not distinguish between those who passed the secondary school leaving exam and those who did not, and that the exam is a condition for continuing to university, this inaccuracy makes it problematic for application to the Czech Republic, Germany and other countries. The Model I results for all the countries in our pool are summarized in Tables 9 and 10.

Table 9. The fit statistics for Model I for five European countries

		value	df	sig.
Czech Republic	**Likelihood Ratio**	15.6464	12	0.207973
	Pearson Chi-Square	14.02058	12	0.299396
Germany	**Likelihood Ratio**	19.87562	12	0.069476
	Pearson Chi-Square	19.48528	12	0.077471
Switzerland	**Likelihood Ratio**	6.943074	12	0.861352
	Pearson Chi-Square	6.930869	12	0.862148
Poland	**Likelihood Ratio**	29.39609	12	0.00344
	Pearson Chi-Square	26.33813	12	0.009611
Sweden	**Likelihood Ratio**	13.69637	12	0.320516
	Pearson Chi-Square	13.33441	12	0.34521

Source: ESS 2004.

As Table 9 shows, Poland is the only country for which Model I is unsuitable. In the case of Germany, the model oscillates on the threshold of statistical significance. On the other hand, the model is excellent for describing the situation in Switzerland and Sweden, as well as in the Czech Republic.

Table 10. Parameters of estimates for the preferred Model I for the transition between higher secondary and tertiary education in the five surveyed countries

	Czech Republic				Germany				Switzerland			
	B	S.E.	Sig.	exp(b)	B	S.E.	Sig.	exp(b)	B	S.E.	Sig.	exp(b)
[tert = 0] * [fed = 1]	2.861	0.336	0.000	17.477	1.733	0.215	0.000	5.658	1.891	0.234	0.000	6.626
[tert = 0] * [fed = 2]	1.856	0.159	0.000	6.398	1.316	0.150	0.000	3.730	1.398	0.166	0.000	4.047
[tert = 0] * [fed = 3]	-0.163	0.213	0.446	0.850	0.080	0.158	0.615	1.083	-0.240	0.192	0.210	0.786
[tert = 0] * [cohort = 1]	0.541	0.200	0.007	1.718	0.160	0.157	0.306	1.174	0.608	0.196	0.002	1.837
[tert = 0] * [cohort = 2]	0.416	0.173	0.016	1.515	0.124	0.148	0.401	1.132	0.316	0.169	0.062	1.371
[tert = 0] * [gender = 0]	-0.143	0.147	0.330	0.866	-0.735	0.108	0.000	0.480	-0.487	0.140	0.000	0.615

	Poland				Sweden			
	B	S.E.	Sig.	exp(b)	B	S.E.	Sig.	exp(b)
[tert = 0] * [fed = 1]	1.589	0.182	0.000	4.898	0.311	0.160	0.052	1.365
[tert = 0] * [fed = 2]	0.349	0.221	0.114	1.418	-0.499	0.262	0.056	0.607
[tert = 0] * [fed = 3]	-1.128	0.296	0.000	0.324	-1.091	0.192	0.000	0.336
[tert = 0] * [cohort = 1]	0.833	0.287	0.004	2.300	-0.421	0.181	0.020	0.656
[tert = 0] * [cohort = 2]	0.353	0.199	0.077	1.423	-0.022	0.165	0.893	0.978
[tert = 0] * [gender = 0]	0.655	0.188	0.001	1.926	0.563	0.129	0.000	1.756

Note: "tert = 0" implies a failed transition.
Source: ESS 2004.

Based on the results of using the optimal model for the Czech Republic also for other countries (Table 10), we can conclude that Switzerland is the country most like the Czech Republic in terms of the reproduction of educational status. In Switzerland, too, the odds of succeeding in the transition to university increases from cohort to cohort.[12] The impact of the father's education is also high, men stand better odds of making the transition than women and the relevant ratio is similar to the Czech one. In more precise terms, in the Czech Republic the odds of the oldest cohort succeeding in the transition to university is 1.7 times higher than the odds in the youngest cohort, and it is practically the same in Switzerland – 1.8 times higher. With regard to the gender factor, Czech men have 1.2 times higher odds and Swiss men have 1.6 times higher odds. The odds of children of fathers with lower secondary education or less are almost 21 times lower in the Czech Republic than the odds of children of university-educated fathers, and 8 times lower in Switzerland. In Poland,

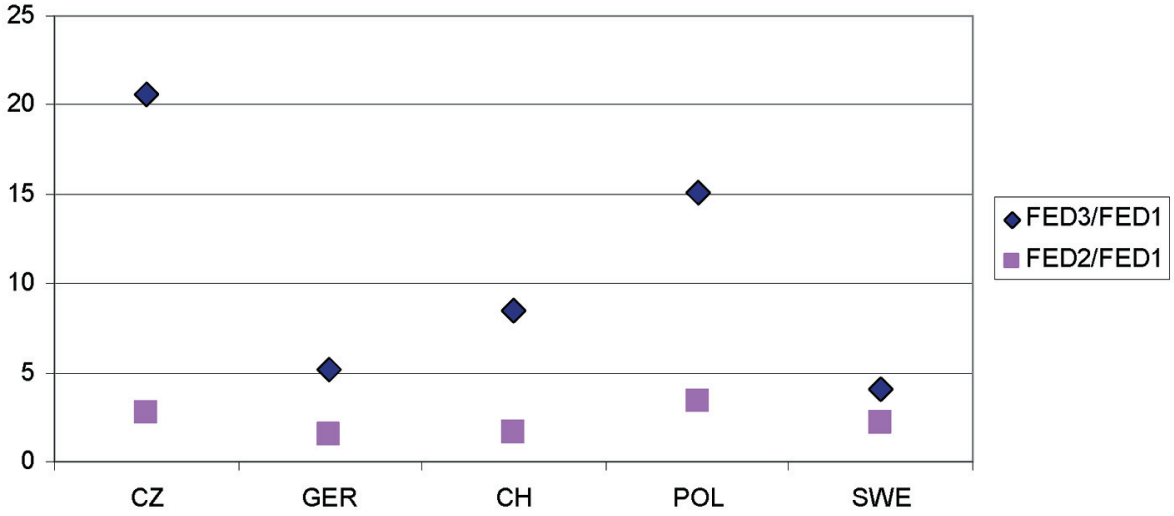
12 We have to again draw attention to the logic of SPSS. The odds of success can be computed from the inverted values in the column exp(b), e.g. for Switzerland for the first cohort (1/6,626=0,15) for the third one (1/0,786=1,276) so decreasing exp(b) mean increasing odds for success-failure. The reason is simple. SPSS compares opposite ratio (failure/success); this information is included in the first column of the table, where tert=0 means failure and the reference category is logically success. For other variables similar logic can be applied but exp(b) are not odds but odds ratios as the last category of these variables is omitted.

another post-Socialist country, the same odds are 15 times lower, but we must not forget that the model was not suitable for Poland. In Germany, the odds of children of fathers educated to lower secondary level or less were 5 times lower than those of the offspring of university-educated fathers. The inequality was the lowest in Sweden; the odds of the offspring of the fathers with a lower level of education were only 4 times lower.

Germany is similar to the Czech Republic in that men have higher odds of succeeding in the second transition (2 times higher than women), and the father's education influences the likelihood of success positively. Inter-cohort differences in Germany are, however, not that evident and the tests did not prove their statistical significance. Let us just note that the effect of the father's education is the greatest in the Czech Republic (see the likelihood ratio in column exp (b)). Sweden, on the other hand, is different from the Czech Republic, Switzerland and Germany; as proven by other research, there was a decrease here in the likelihood between the first and the second cohort. The situation between the youngest and the middle cohort remained approximately stable. Poland and Sweden are the only countries in the pool where men stand better odds of succeeding in the second transition than women – the situation in the other countries is just the opposite.

Poland is specific in that the Model I we used practically does not work here. Although the parameters are statistically significant and at the right side of the scale, the overall test and the residuals test suggest unsuitability of the model for application to ESS 2004 data. Poland is much more suited to the model with interactions between cohort and father's education. The factor of the father's education in the second transition changed with time; the low odds of children of fathers with lower secondary education or less in the first cohort (reaching majority in 1955–1970) were the most evident. Poland clearly suits Model III best (with the father's occupation instead of his education). This model is also much more suitable for Germany than Model I, which was used. The question arises as to whether in some countries perhaps the transfer of cultural capital does not happen exclusively through education, but through the *occupation – education* relationship in one generation, and subsequently through the traditional *education – education* relationship. Initial research seems to suggest that Poland and Germany could recently qualify for this group with the relationship between the father's occupation and the child's education. According to research, the Czech Republic, Switzerland and Sweden, on the other hand, appear to be in the category where traditionally the transfer is achieved along the line of father's education – child's education.

Figure 13. Odds ratios in the second transition for 3 educational categories of the father (tertiary vs. higher secondary education, tertiary vs. lower secondary education or less)



Source: ESS 2004.

Figure 13 reveals which country has the highest level of inequality in access to tertiary education. The graph shows that the highest odds ratio, which translates in the highest level of inequality in odds of succeeding in the second transition, is in the Czech Republic. Children of fathers with lower secondary education or less face about 20 times lower odds of success in their transition to university. At the same time we have to note that, owing to the ISCED classification, the figure includes many children who had already failed in the first transition (we point this out on pages 13 and 16). Sweden and Germany are countries with rather more equal chances of children from families with fathers of different education. Poland is closest to the Czech Republic (we already noted the second highest odds ratio between the offspring of fathers with lower secondary education or less and the offspring of university-educated fathers, which was 15). The situation is markedly more equal when we compare the odds of children of university-educated fathers and secondary-educated fathers (the odds ratios in the second transition range between 1.5–3); the ratio is the highest in Poland and lowest in Germany. It is necessary to point out a surprising disparity between the high numbers of students obtaining upper secondary education and the number entering university education in Poland (i.e. the large expansion of education), especially in comparison with the CR, or the opposite case – Sweden, as shown in table 1. Two possible explanations could be that either the situation changed very significantly between 2002 and 2008 in Poland or that children from lower class families go to worse secondary schools and still lag behind in the entrance to universities. When looking at the numbers in table 1 and figure 13, it is also interesting that, despite the numbers of upper secondary graduates (classified according to ISCED 3A category) and the tertiary type-A net entrance rate in the Czech Republic (59% and 50%) being higher than in Switzerland (26% and 38%) the odds ratio is more “unequal” in the CR. The explanation here may be in the nature of selection – one may say that in the Switzerland the selection, although made at the

same ages as in the CR, seems to be more "meritocratic" and more just. This is in line with the result showing that the influence of cultural capital on success in the transition to university is highest in the CR, even higher than in Switzerland. We may conclude that the openness of the educational systems does not automatically lead to lower inequalities in access to education, as can be seen in the case of the Czech Republic in comparison, for example, with Poland, Switzerland etc.

7. Conclusion

This text concerned the role that is played by social background and other demographic factors in the reproduction of educational inequalities in access to tertiary education in the Czech Republic since 1989. We based our analysis on a comparison of the Czech situation with that of Germany, Poland, Sweden and Switzerland. We tracked the current trends in the transfer of the educational status of the family in these countries in the period from 1955 until 2002. Using logit and log-linear modelling, we wanted to see how the father's education and social class, and the respondent's gender and age cohort, influence the respondent's success in the transition from the secondary to the tertiary system of education. We were eminently interested in seeing whether educational inequality has increased or decreased since 1989, which factor drives the trend and which of the other countries is closest to the Czech context.

The choice made on the first transition from primary school to a secondary school with a school leaving examination already plays a major part in success/failure in the second transition. For this reason we examined this "milestone" first. We found that the likelihood of success increases with time and that women and persons with higher-educated fathers also stand better chances. The father's education plays a major role – children of university-educated fathers have 3.5 times better odds of succeeding than children of fathers educated to secondary level, and 10 times better odds than children of fathers without the secondary school leaving examination! It is obvious that the first selection, which subsequently dilutes the effect of social status in higher transitions – as described on page 4 – happens at 15 years of age, at the time of the transition from primary to secondary school.

In order to capture the trend in inequality in access to tertiary education in the Czech Republic and the other countries in the pool, we used a model that worked on the premise that the odds ratio in the second transition was different in each cohort and that the father's education played a stable role on an inter-cohort basis, and that the differences between men and women did not progress. The model fared better than the model which claimed that the influence of the father's education changed between cohorts, and that the relationship between the respondent's gender and his/her success in the transition changed on an inter-cohort basis. Moreover, the chosen model has proven to be more suitable than the model in which the father's social status (EGP) interacted with the likelihood of success of his child in the transition, from which we concluded that the father's education is more important than his EGP in educational reproduction in the Czech Republic. The conclusion is in line with the conclusions of previous research [e.g. Matějů 1993, Wong 1998, Simonová 2003].

The model capturing the reproduction of university education in the Czech Republic proved that the variable "father's education" reflected positively on the respondent's success in the transition. The difference between the offspring of university-educated fathers and the offspring of fathers with incomplete secondary education (no school leaving examination) was almost 7 times, and between the offspring of fathers with complete secondary education (with the school leaving examination) almost four times. Men have 1.4 times higher odds of going on to university than women. With regard to development over time, we can conclude that the likelihood ratio of continuing to university increased with each cohort. The father's EGP played a lesser role than his education in the child's success in the second transition. The variable "father's class", however, still reflects positively on the respondent's success in the transition: the higher the EPG of the father, the higher the odds of his child in the transition to university

The modelling of tertiary education reproduction in the surveyed countries revealed that Switzerland is the country which is closest to the Czech Republic in terms of reproduction of its educational status. There, too, the odds of succeeding in the second transition increase between cohorts, the father's education plays a major role and men have a better chance of making the transition than women, and the ratio is similar to the Czech one. We already mentioned above that in Switzerland, as in the Czech Republic, university education is traditionally regarded as very exclusive, which determines the educational inequality on this level. In Switzerland, the odds of the offspring of fathers with lower secondary education or less compared to the offspring of university-educated fathers are the second lowest after the Czech Republic (we are discounting Poland as the model was not statistically suitable). The effect of the father's education in the Czech Republic turned out to be the highest (the variance in the odds ratio obtained using the Czech and international data stems from the different classification of the achieved education, as noted in the text). The model confirmed our expectation of finding the lowest inequality in Sweden, where the odds ratio between offspring of the two educational categories was the lowest. Sweden also differs from the Czech Republic, Switzerland and Germany in that there was a dip in the odds between the first and the second cohort (from the second cohort onwards, the odds of the individual educational groups remained stagnant). Sweden and Poland are the only countries where men have higher odds of succeeding in the second transition; the situation in all the other surveyed countries is the opposite.

Poland is also specific in that the influence of the father's education on the transition changed over time, and in that the father's EGP seems to prevail over his education, just as in Germany. It seems that in the Czech Republic, Switzerland and Sweden, cultural capital is transferred through education (the traditional father's education – child's education channel); in Poland and Germany, on the other hand, it is the occupation – education route. At any case, our conclusions indicate that access to tertiary education in the Czech Republic today is – compared to the other countries in the pool – most determined by the cultural aspect of social class (father's education). We can postulate that the Czech tradition, i.e. the principal influence of the educational climate in the family on the education of the offspring, has not been eradicated. From a historical point of view, the Czech lands have always been an egalitarian society with a rather flat social hierarchy. The father's education has always been an expression of culture rather than a vehicle for improvement in lifestyle (in the material sense). The situation at the same time suggests that the theory of cultural reproduction applies to the Czech context – the notion that tertiary education is still rather elite (we are talking about the period up to 2002; in the last five years, the university sector has undergone a significant expansion). The analysis also speaks in favour of the MMI hypothesis, provided we accept its tenet

that inequality in the Czech Republic is decreasing from one cohort to another due to the saturation of demand from higher classes. We must not forget EMI – it raises the question whether the decrease in inequality on entry to the tertiary level does not bring about a social notion of which universities are better and which are worse, thus simply pushing the problem of inequality one level higher. Despite this risk, the latest research indicates that any expansion on the tertiary level produces more inclusion (i.e. of people with lower status backgrounds) than diversification [Shavit, Arum, Gamoran 2007].

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Summary

The aim of this work was to identify the trends in the influence of socio-economic, cultural and gender factors in the reproduction of educational inequality in access to tertiary education in the five chosen countries: the Czech Republic, Switzerland, Sweden, Germany and Poland. We tracked the current trends in the transfer of the educational status of the family in these countries in the period from 1955 until 2002. We built our model to best suit Czech conditions, then applied it to the other countries and explored the differences compared to the Czech situation. Previous research conducted in the Czech Republic alone arrived at contradictory conclusions – both concerning the trends in inequality after the demise of the Socialist regime and the weight of the factors that cause the inequality. Also, no international comparison that would place the Czech Republic in the context of other countries had been made. Therefore, we were eminently interested in seeing whether educational inequality has increased or decreased since 1989, which factor drives the trend and which of the other countries is closest to the Czech context.

As the first selection, which subsequently dilutes the effect of the social status in higher transitions happens at 15 years of age, we first examined the pattern of choice upon the first transition (i.e. from primary school to a secondary school with the school leaving examination). We found that the likelihood of success increases with time and that women and persons with higher-educated fathers also stand better chances. The best model capturing the trend in inequality in access to tertiary education in the Czech Republic and the other countries in the pool worked on the premise that the odds ratio in the second transition was different in each cohort, the father's education played a stable role on an inter-cohort basis and the differences between men and women did not progress. It revealed that the variable "father's education" reflected positively on the respondent's success in the transition, that men have higher odds of going on to university than women and that the likelihood ratio of continuing to university increased with each cohort in the Czech Republic. It also implies that the father's education is more important than his EGP in educational reproduction in the Czech Republic.

The modelling of tertiary education reproduction in the surveyed countries revealed that Switzerland is the country which is closest to the Czech Republic in terms of reproduction of its educational status. There, too, the odds of succeeding in the second transition increase between cohorts, the father's education plays a major role and men have a better chance of making the transition than women, and the ratio is similar to the Czech one. As in the Czech Republic, university education in Switzerland is traditionally regarded as very exclusive, which determines the educational inequality on this level. The model confirmed our expectation of finding the lowest inequality in Sweden, where the odds ratio between offspring of the two educational categories was

lowest. Sweden also differs from the Czech Republic, Switzerland and Germany in that there was a dip in the odds between the first and the second cohort (from the second cohort onwards the odds of the individual educational groups remained stagnant). Sweden and Poland are the only countries where the men have higher odds of succeeding in the second transition; the situation in all the other surveyed countries is the opposite.

Also, in Germany and Poland, the father's EGP seems to prevail over his education. Therefore, it seems that in the Czech Republic, Switzerland and Sweden cultural capital is transferred through education (the traditional father's education – child's education channel), but in Poland and Germany, on the other hand, it is the occupation – education route. In any case, our conclusions indicate that access to tertiary education in the Czech Republic today is – compared to the other countries in the pool – most determined by the cultural aspect of social class (father's education). We can postulate that the Czech tradition, i.e. the principal influence of the educational climate in the family on the education of the offspring, has not been eradicated, partly because of the notion that tertiary education is still rather elite.

Shrnutí

Cílem této práce bylo identifikovat vývoj vlivu socio-ekonomických, kulturních a genderových faktorů na reprodukci vzdělanostních nerovností v přístupu k terciárnímu vzdělání v pěti vybraných zemích: České republice, Švýcarsku, Švédsku, Německu a Polsku. Sledovali jsme aktuální trendy v přenosu vzdělanostního statusu rodiny v těchto zemích mezi lety 1955 až 2002. Výsledný model jsme vybudovali tak, aby co nejlépe vystihoval české podmínky, a poté jsme ho aplikovali na ostatní zkoumané země, u nichž jsme sledovali odlišnost od české situace. Dosavadní analýzy provedené pouze pro ČR totiž došly nejen k rozporuplným výsledkům jak o samotném vývoji nerovností po pádu socialismu, tak o váze faktorů, které je způsobují, ale dosud rovněž nebyla provedena žádná mezinárodní komparace, s jejíž pomocí by bylo možné výsledky získané pro ČR porovnat s jinými státy. Nejvíce nás tedy zajímalo, zda se po roce 1989 vzdělanostní nerovnosti snižují či zvyšují, a jakým faktorem je daný trend způsoben, a rovněž to, která z komparovaných zemí je ČR nejvíce podobná.

Protože první selekce, která následně „řadí" vliv sociálního původu na vyšších tranzicích, se odehrává v 15 letech, nejdříve jsme zkoumali mechanismy působící na prvním vzdělanostním přechodu (tj. mezi základní a střední školou s maturitou). Zjistili jsme, že postupem času se zde šance na úspěšný přechod zvyšují, vyšší šance mají ženy a osoby, které mají vzdělanější otce. Nejlepším modelem zachycujícím vývoj nerovností v přístupu k terciárnímu vzdělání v České republice i dalších komparovaných zemích byl ten, který předpokládal, že šance na přechod mezi střední a vysokou školou se mezikohortně proměňovala, vliv vzdělání otce však byl mezikohortně stabilní a taktéž rozdíly mezi muži a ženami zůstávaly zhruba konstantní. Modelování ukázalo, že proměnná „vzdělání otce" měla na úspěch respondenta v tranzici pozitivní vliv, že muži mají šanci na přechod na vysokou školu vyšší než ženy a že šance na vstup na vysokou školu se v České republice mezikohortně zvyšovala. Tento model rovněž implikoval, že vliv třídního postavení otce (jeho EGP) na úspěch dítěte v druhé tranzici je nižší než vliv jeho vzdělání.

Modelování reprodukce terciárního vzdělání v jednotlivých zemích odhalilo, že zemí, která je ČR ve způsobu reprodukce vzdělanostního statusu nejvíce podobná, je Švýcarsko. I zde šance na úspěch v tranzici na vysokou školu mezikohortně roste, vliv vzdělání otce je rovněž vysoký a muži mají šance na překonání tranzice vyšší než ženy, a to v podobném poměru, jako v ČR. Jak bylo zmíněno výše, stejně jako v ČR i ve Švýcarsku je vysokoškolské vzdělání tradičně chápáno jako elitní vzdělání, což determinuje vzdělanostní nerovnosti na této úrovni. Nejmenší nerovnosti se nám podle očekávání potvrdily ve Švédsku, kde je poměr šancí mezi potomky obou zmíněných vzdělanostních skupin nejmenší. Švédsko je rovněž zemí odlišnou od ČR, Švýcarska a Německa: na rozdíl od nich zde došlo k poklesu šancí mezi první a druhou kohortou (od druhé kohorty se šance různých vzdělanostních

skupin nemění). Švédsko společně s Polskem jsou rovněž jedinými zeměmi, kde mají muži vyšší šance na druhou tranzici než ženy, ve všech ostatních státech je tomu naopak.

V Německu a Polsku je pak působení EGP otce důležitější než jeho vzdělání. Vypadá to tedy, že zatímco v České republice, Švýcarsku a Švédsku dochází k přenosu kulturního kapitálu skrze vzdělání (tj. funguje zde tradiční kanál vzdělání otce – vzdělání dítěte), v Polsku a Německu se tak děje nikoliv skrze vzdělání, ale skrze vazbu profese – vzdělání. Každopádně naše zjištění ukázala, že přístup k vysokoškolskému vzdělání je v ČR v současné době ze všech analyzovaných zemí nejvíce determinován kulturní složkou sociálního původu (vzděláním otce). Dalo by se říci, že česká tradice, tedy zásadní vliv vzdělanostního klimatu rodiny na vzdělání potomků, nebyla stále ještě zvrácena, také díky tomu, že terciární vzdělávání je chápáno stále jako elitní.

Zusammenfassung

Ziel dieser Arbeit ist die Identifizierung der Entwicklung des Einflusses sozio-ökonomischer, kultureller und Gender-Faktoren auf die Reproduktion von Bildungsungleichheit im Zugang zur tertiären Bildung in Tschechien, der Schweiz, Schweden, Deutschland und Polen. Dabei verfolgten wir die aktuellen Trends der Übertragung des Bildungsstatus der Familie in diesen Ländern im Zeitraum 1955 bis 2002. Das entwickelte Modell bauten wir so auf, dass es den tschechischen Bedingungen möglichst entsprach, und wendeten es anschließend auf die anderen Länder an, bei denen wir die Unterschiede zu Tschechien untersuchten. Die bisherigen, nur für Tschechien durchgeführten Analysen führten nämlich sowohl hinsichtlich der Entwicklung der Bildungsungleichheit nach dem Fall des Sozialismus als auch hinsichtlich der die Bildungsungleichheit bedingenden Faktoren zu widersprüchlichen Ergebnissen; gleichfalls gibt es bislang keine Studien mit einem internationalen Vergleich zwischen Tschechien und anderen Ländern. Am meisten interessierte uns also, ob sich die Bildungsungleichheit nach 1989 verringert oder vergrößert, welcher Faktor den vorliegenden Trend bestimmt und gleichfalls, welches der Vergleichsländer Tschechien am ähnlichsten ist.

Da die erste Selektion, die den Einfluss der sozialen Herkunft auf höhere Transitionen anschließend „ausdünnt", um das 15. Lebensjahr stattfindet, untersuchten wir zunächst die Mechanismen, die beim ersten Bildungsübergang wirken (d.h. zwischen Grundschule und Mittelschule mit Abitur). Dabei stellten wir fest, dass sich die Chancen auf einen erfolgreichen Übergang mit der Zeit erhöhen, mit höheren Chancen für Frauen und Kinder von Vätern mit höherem Bildungsgrad. Als bestes Modell zur Erfassung der Entwicklung der Ungleichheiten beim Zugang zur tertiären Bildung in Tschechien und in den Vergleichsländern erwies sich jenes, das von der Voraussetzung ausging, dass sich die Chancen auf einen Übergang von der Mittel- zur Hochschule zwischen den Kohorten verändern, wobei die Bildung des Vaters zwischen den Kohorten jedoch stabil ist und auch die Unterschiede zwischen Männern und Frauen in etwa konstant bleiben. Der Modellaufbau zeigte, dass die Variable „Bildungsstand des Vaters" einen positiven Einfluss auf den Transitionserfolg der Respondenten hatte, dass Männer eine höhere Chance auf einen Hochschulübergang haben als Frauen, und dass sich die Chancen auf einen Hochschulzugang in Tschechien zwischen den Kohorten erhöhten. Dieses Modell implizierte außerdem, dass der Einfluss der sozialen Zugehörigkeit des Vaters (EGP) auf den Erfolg des Kindes in der zweiten Transition geringer ist als der Einfluss des Bildungsstands des Vaters.

Der Modellaufbau der Reproduktion der tertiären Bildung in den einzelnen Ländern zeigte, dass die Schweiz Tschechien hinsichtlich der Reproduktion des Bildungsstatus am ähnlichsten ist. Auch hier steigen die Chancen auf einen erfolgreichen Hochschulübergang zwischen den Kohorten, auch der Einfluss des Bildungsstands des Vaters ist hier hoch und gleichfalls haben Männer höhere Tran-

sitionschancen als Frauen, wobei das Verhältnis mit Tschechien vergleichbar ist. Wie bereits erwähnt, wird die Hochschulbildung in der Schweiz ähnlich wie in Tschechien traditionell als elitäre Bildung aufgefasst, was die Bildungsungleichheit auf dieser Ebene determiniert. Die geringste Ungleichheit bestätigte sich erwartungsgemäß in Schweden, wo das Verhältnis der Chancen unter den beiden genannten Bildungsgruppen am kleinsten ist. Schweden unterscheidet sich auch von Tschechien, der Schweiz und Deutschland: in Schweden verringerten sich im Unterschied zu diesen Ländern die Chancen zwischen der ersten und der zweiten Kohorte (ab der zweiten Kohorte ändern sich die Chancen der verschiedenen Bildungsgruppen nicht mehr). Schweden ist auch zusammen mit Polen das einzige Land, in dem Männer größere Chancen auf eine zweite Transition haben als Frauen, in allen anderen Ländern ist es umgekehrt.

In Deutschland und Polen ist der Einfluss des EGP des Vaters wichtiger als der Bildungsstand des Vaters. Es sieht also so aus, dass während in Tschechien, der Schweiz und in Schweden das kulturelle Kapital durch Bildung übertragen wird (d.h. dass hier der traditionelle Kanal Bildung des Vaters – Bildung des Kindes funktioniert), in Polen und Deutschland die Übertragung nicht durch Bildung, sondern durch die Beziehung Beruf – Bildung erfolgt. In jedem Fall zeigten unsere Feststellungen, dass der Zugang zur Hochschulbildung in Tschechien im Vergleich mit den analysierten Ländern derzeit am meisten von dem Kulturfaktor der sozialen Herkunft (Bildung des Vaters) determiniert ist. Man kann sagen, dass die tschechische Tradition, d.h. der grundlegende Einfluss des Bildungsklimas der Familie auf die Bildung der Nachkommen bislang ungebrochen ist, was auch darauf zurückzuführen ist, dass die tertiäre Bildung immer noch als elitäre Bildung aufgefasst wird.

O autorech

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Evolution and Determination of Educational Inequalities in the Czech Republic between 1955 and 2002 in the European Context

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