

HENRYK DOMAŃSKI
Polish Academy of Sciences

Barriers of the Selection to Secondary and University-Level Education

Abstract: This paper analyses educational inequalities in Poland over the last two decades. Using data from national surveys carried out during the period 1982–2002 these results provide insight into the relationship between social origin and transition to secondary schools and university levels. Transition to both secondary school and universities are unquestionably selective by social class. The only question is whether these patterns have changed over the last two decades, when the communist regime collapsed and new inequalities emerged. Previous cross-time analyses for most countries showed a lack of substantial changes in educational inequalities over long periods of time. The main findings of the investigation can be summarised as follows. First, it showed that the effect of the class position of the father significantly increased in the 1990s, and then—until 2002—it declined to the degree of the 1980s, before the communist system collapsed. Second, in accordance with the findings of all previous studies, secondary school transition proved to be more selective as compared to that to the university level.

Keywords: educational inequality, barriers of selection, social stratification, post-communist societies

Previous inquiries have proven that the effect of social origin on educational attainment has mainly been stable over time. As it has been documented in the United States by pioneering studies by Blau and Duncan (1967), the effect of a father's occupation and education on schooling did not significantly change over decades. Admittedly, there were some indications that it slightly changed in the next period of time. Featherman and Hauser (1978), and Hout, Raftery and Bell (1993), discovered that the barriers of origin in educational selection slightly decreased. As regards Britain, the results of the *Oxford Mobility Study* in 1972 disclosed even an increase in educational inequalities after 1945 (Halsey 1977). This tendency was confirmed by Kerckhoff and Trott (1993), and although some analyses for an extended period of time showed some decline in the relationship between social origin and educational attainment (Jonsson and Mills 1993), other findings still documented the lack of change (Goldthorpe 1996; Marshall et al. 1997).

A stable association between the education of children and the status of parents was also found in Germany, Israel, and Italy. Cross-time analyses for these countries showed no changes in educational inequalities over long periods of time (Blossfeld 1993; Shavit and Kraus 1993; Cobalti and Schizzeroto 1993). In the Netherlands,

Henryk Domański is Professor of Sociology and Director of the Institute of Philosophy and Sociology Polish Academy of Sciences, Warsaw, Poland. Member of the Steering Committee for the European Social Survey under European Science Foundation; Member of the Steering Committee of Quantitative Methods in Social Sciences; e-mail: hdomansk@ifispan.waw.pl

de Graaf and Ganzeboom (1993) found a weakening effect of the educational and occupational position of the father in the youngest cohorts of age. However, according to other results the father category remained a significant determinant of educational attainment (Dronkers 1993). In general, among all countries in which educational inequalities were studied, Sweden seems to be the only country where (until the 1990s) one could find a systematic decline in the association between social origin and educational level (Jonsson and Mills 1993).

Starting from the analyses conducted by Robert Mare (1981) educational attainment has been defined in terms of series transitions. Following the general tendencies, most inquiries revealed an unchanging effect of social origin on two basic transitions, that is to secondary and university levels (see Shavit and Blossfeld 1993). Mixed results came from Eastern European societies. The communist government in Eastern Europe sought to implement a policy aiming at equalising access to education, but it did not succeed in Poland. Sawiński and Stasińska (1986) and Białecki and Heyns (1993) convincingly proved that social origin, and other ascriptive features, did not decline in its influence on transition to secondary and university levels. A similar level of stability took place in Russia (Gerber and Hout 1993) and Hungary (Robert 1991; Szelenyi and Aschaffenburg 1993; Hanley and McKeever 1997). In the case of Czechoslovakia, Belarus, and the Baltic states, recent analyses disclosed significant changes in secondary school tracking during the communist rule (Saar 1997; Kreidl 2004).

Although educational inequalities under the communist system were intensively examined, the investigation did not extend beyond 1990. The dynamics of these processes in transition economies have been obscured, and one hardly knows whether systemic change brought about an increase or decline in the association between social origin and schooling. I will address this question for the Polish case in the analyses presented below. Through using data from national surveys carried out during the period 1982–2002 my results provide a preliminary understanding of the relationship between social origin and transition to secondary schools and universities.

Transition to Secondary and Tertiary Levels

Educational selection results from many factors—such as entrance examinations, payment of tuition fees, quota systems—not excluding the subjective reasons of leaving school. Nevertheless, in the end, these mechanisms boil down to the influence of parental “capitals” on their children’s decision to stay in the educational system. The standard way of examining this process is through its decomposition into a series of transitions and tracking.

As Robert Mare (1981) has shown, the conceptualisation of formal schooling in a sequence of transitions between grades is the most appropriate embodiment of the inequalities of educational opportunity. He used the logistic response model to specify the relationship between social background and schooling in terms of grade progression rates and the effect of social background on progression rates. Mare

argued that dividing the schooling process into separate grade transitions made it possible, first, to distinguish between two facets of educational inequality: univariate dispersion of formal schooling and the multivariate association between school attainment and socio-economic background characteristics. Second, the logistic response model makes it possible to measure the association between school continuation and the social background net of the marginal distribution of schooling. In other words, it makes the changes in the principles of allocation of schooling explicit.

This approach illuminates the apparent stability of educational stratification, which is disclosed by means of a linear model of the highest grade completed in school. The research conducted by Mare demonstrated that the two facets of educational inequality represented offsetting influences—decreasing variance in the schooling distribution and increasing the association between socio-economic background and grade progression. The analyses of data from most of countries carried out according to this model emphasised the stability of effects of parental socio-economic background on the formal schooling of their offspring. Equally important was that they revealed a downward trend in grade progression rates; in particular, the effect of parental characteristics on the transition from primary to secondary school was higher in comparison to the transition from the secondary to university level (Garnier and Raffalovitch 1984; Vrooman and Dronkers 1986; Blossfeld 1993; Treiman and Yamaguchi 1993; Cobalti and Schizzerotto 1993).

These results contradicted one of the most influential explanations for social stratification. Modernisation theories and other structural-functional arguments posit that as economic development increases, the allocation of individuals across the social hierarchy shifts from ascription toward more universalistic, merit-based mechanisms (Kerr et al. 1960; Treiman 1970; Parsons 1971; Inkeles and Smith 1974). Hence, with modernisation, the effect of social origin tends to decline.

In view of the existing theories it was also surprising that parental characteristics appear to be relatively weaker determinants of transition to the university level than progression to secondary schools. According to Bowles and Gintis (1976), the objective educational system has been etched in the meritocratic perspective, and nowhere is this seen more clearly than in “open admission” to top colleges and universities. However, as they argued in their book *Schooling in Capitalist America*, “the ostensibly objective and meritocratic selection and reward system of the U.S. corresponds not to some abstract notion of efficiency, rationality, and equity, but to legitimisation of economic inequality and the smooth staffing of unequal work roles (Bowles and Gintis 1976: 106–9).

Other explanations focus on the mechanisms of cultural reproduction. Collins (1971) and Bourdieu (1986) pointed out that privileged categories seek to maintain their high socio-economic positions, and in doing this they tend to monopolise access to symbols of superiority. Their strategies include the erection of formal barriers that restrict admission to the university level. In his analyses of the French case, Bourdieu (1986: 154) wrote that “in the present state of the system, the exclusion of the great mass of working-class and middle-class children takes place not at the end of primary schooling but steadily and imperceptibly, all through the early years of secondary

schooling, through hidden forms of elimination, such as repeated years (equivalent to deferred elimination), relegation into second-class courses, and, finally, awarding of devalued certificates.” Collins and Bourdieu emphasised that the cultural capital of the family strengthens educational selection in transition to tertiary schools, while the selective role of the secondary school’s barrier decreases.

People’s Poland and the 1990s

In many countries—particularly in the U.K.—studies on educational inequality have been designed to check the effectiveness of social policy aiming at reducing class barriers. The decrease in educational inequality would have been good for legitimising the communist system, which was installed under the banner of eliminating class divisions. In fact, national studies on educational attainment, which began in Poland in the 1980s, sought to diagnose the two phenomena detected earlier in the United States and the U.K., namely, whether: (i) social origin is a stronger determinant of selection to secondary school than the later transitions, and whether (ii) the effect of social origin remains stable over longer periods of time.

Indeed, both tendencies took place also in Poland. The selection to secondary school proved to be much stronger and stable over time as the cohort analysis revealed. There was a slight decline in this association in the second transition—that from secondary school to university level—but this did not weaken the overall effect of parental status on the highest grade completed (Sawiński and Stasińska 1986; Heyns and Bialecki 1993). It should be mentioned that similar results were obtained later for Czechoslovakia and communist Hungary (Mateju 1993; Szelenyi and Aschaffenburg 1993).

The collapse of communism and the transition to a market economy resulted in two major breakthroughs. First, tertiary education faced a rapid growth of students—from 403,800 in 1990 to 1,818,700 enrolled in 2002. Second, the educational boom was paralleled by tracking in public and non-public schools, which before 1989 almost did not exist. It mostly took place on the tertiary level—the total number of higher education institutions increased from 122 in 1990 to 344 in 2001/2002 with private institutions accounting for 221. All in all, the “scholarisation rate brutto” (number of students/population in the cohort of 18–24) increased in the period 1990–2002 from 12.9% to 43.6%.

On the one hand, one could realistically assume that patterns of educational selection remained basically unchanged, bearing in mind the results of all previous studies. On the other hand, one could expect that the systemic change created new circumstances that did not exist in stable Western democracies and under communist regimes. It would not be unusual if the expansive development of the market relations resulted in increasing the impact of social origin on the educational attainment of offspring. Cross-time analyses heavily emphasised the growing role of education in determining earnings, which was demonstrated by the rapid increase of the financial value of the university level. For example, the net premium for higher education

increased from 12% in 1982 to 46% in 2002, relative to average earnings (Domański 2004). It seemed likely that this would enhance competition in access to education and, consequently, would lead to an increase in the role of the family background.

Recent sociological research is unambiguous regarding this point. Actually, studies have shown that in the 1990s the association between parental socio-economic status and both educational transitions significantly increased (Domański 2000). It is important to note that this upward swing resulted, in fact, in widening the gap between the opportunities of the offspring of the intelligentsia and representatives of other social categories. The intelligentsia that occupies the higher rungs of stratification in Poland turned out to be the sole beneficiary of the systemic change on the educational market.

Hypotheses

While we found aspects of the increasing role of the family background in the first years of transition to a market economy, the question remains whether this tendency continued in the later stage of systemic change. I will attempt to address this question using more complete data and observations repeated over time. One can consider three scenarios as regards social origin and secondary and tertiary school transitions.

In sum we can expect that:

Hypothesis 1: after intensive changes in the preliminary stage of the market economy, which brought about a certain increase in educational inequalities, educational channels were established. The processes of increasing the closure of secondary and tertiary schools reached their highest point in the 1990s. After that, a greater certainty and status stability followed as well as a relatively strong, although unchanging, effect of parental socio-economic status on educational attainment.

Hypothesis 2: building upon prevailing tendencies, which were revealed in the majority of findings, one can argue that stability in patterns of educational selection fits the universal "norm." In view of this interpretation the rapid increase in differentials among the offspring of different strata in the 1990s was only an episode, as prompted by the growing role of credentialism based on the meritocratic ideology of capitalist societies. After reaching a "saturation" point educational channels should return to the trajectory dictated by the logic of social stratification that would result in decrease of social origin on secondary and tertiary school transition.

Hypothesis 3: one cannot exclude the progressive increase in educational inequality over a longer period of time. Recent developments on the Polish labour market suggest that employers seek qualified graduates with valid credentials. The persistence of the high value of a diploma is accompanied by increasing costs of schooling, which confines access to higher levels of education to those who can afford to pay. In this scenario, the family resources become a decisive asset when educational choices are made. Applying this line of reasoning, one can predict that the association between social origin and transition to secondary and post-secondary education continues to increase.

Another primary theme in this work concerns the relative role of the transition to secondary school and to the university level. One important result from previous studies is that the former is more decisive. There is nothing in the Polish educational system that could drastically change this pattern, and one can hypothesise that parental status has a greater impact on transition to secondary school than to the tertiary level. This is in line with the findings of Robinson and Garnier (1985) and Goux and Martin (1997) that family resources lose their impact on the allocation to higher levels of schooling among graduates who have left their original social environment.

Data and Variables

In this article I make use of data from national, representative surveys carried out in Poland in 1982, 1984, 1987, 1992–1995, 1998, 1999 and 2002. The data from the period 1992–1995 were drawn from the Polish General Social Survey, and those from 1982, 1984, 1987, 1998, 1999, and 2002 come from surveys carried out by Institute of Philosophy and Sociology at the Polish Academy of Sciences (Domański 2004). All of them are based on probability samples of men and women aged 21–65. The total size for 1982 was 5317, for 1984 1911, for 1987 5884, and for the PGSS 1992–1995—respectively 1647, 1649, 1609, and 1603. In 1998 the number of individual responses yielded 1584 and in 1999 it was 1384. Finally, the data for 2002 come from the first round of the European Social Survey that comprised 2110 respondents. In the surveys from 1982 and the PGSS 1992–1995, samples were drawn on the basis of households, while in 1984, 1987, 1998, 1999 and 2002 the sample consisted of individuals. All these surveys contain detailed information on social background and the educational attainment of each respondent. The wording of the questions, answer categories, and sequencing were similar in all of them producing cross-time comparable datasets. I used this data to determine the effect of parental status on transition to secondary and tertiary education.

The analysis used two main dependent variables: transition to secondary school and transition to university. Until 2000, the core of primary school education in Poland was public, compulsory, and eight years long. Children were required to start school at the age of seven and had to attend it until the age of seventeen. Secondary schools were divided into basic vocational schools, secondary schools of general education and secondary vocational schools. Post-secondary schools consisted of post-secondary vocational schools and higher educational institutions (universities and polytechnics). In 2000, under the reform of the educational system, primary school was reduced from eight years to six, and the post-primary level was divided into two stages: three years of gymnasium followed by tracking into various “profiled vocational” and general schools attended for three years. As regards tertiary education, it was divided into M.A and B.A. Certainly, the reform of the 2000 was too recent to affect the impact of social origin on educational selection and one cannot expect that it will be reflected in our findings.

Transition to secondary school and the university level are two separate dichotomised outcomes. The reference category for the former includes those who did not continue their educational path after finishing primary school, and in the case of transition to the university it is those who did not continue after completing their secondary education. Social origin is measured by the class position of the father. Although a mother's class position could be a more valid measure of social background—as some studies found that it had an even stronger effect on schooling transitions—such information was not available in all data files. I identified six class locations of fathers based on the collapsed version of the EGP class-schema (Erikson and Goldthorpe 1992): (i) higher-grade professionals, managers, and large proprietors, (ii) lower-grade professionals, managers, supervisors, high-grade technicians, and routine non-manual workers, (iii) small proprietors and self-employed workers, (iv) skilled manual workers, (v) unskilled manual workers, (vi) and farmers and agricultural workers.

Three principal strategies for the study of educational transitions were employed. In the first, canonical correlations between the probability of transitions and a set of dummy variables for social origin were estimated for consecutive points of time in from 1982 to 2002. The second strategy was designed to capture the structure of the effect of social origin. In order to accomplish it, I used a multivariate logistic regression equation predicting transition probability to secondary, and, separately, to the university level. Social origin is specified in terms of six EGP categories for fathers with controlling for age (coded in terms of the four dummy variables: 21–30, 31–40, 41–59, 60–65), and sex (coded 1 for men).¹ In the third stage, I attempted to determine the effect of the father category on different tracks on the tertiary level. Multinomial logistic regression was conducted to determine the net effect of social origin on the probability of the completion of the university level, as compared to the probability of not completing it, or transition to non-university post-secondary school.

An analysis of the selectivity of transitions to both secondary and tertiary levels will be based on a comparison of the total samples of 21–65. I did not employ a comparison of cohorts that may be considered as a limitation of this study since the representatives of the total population made their transitions in the education systems in very different periods. Due to the small sizes of the national samples, I could not divide them into cohorts and determine the effects of social origin on transitions within them. Even in the case of the division into three cohorts, the net effects for the categories of the father proved to be insignificant. The solution of this problem might be to combine samples from neighbouring years, but I could not do this for 2002, which was the latest and crucial date in the series of samples that I use. The only data that I had for 2002 came from samples using different sampling units: that of Polish edition of the ESS, based on a sample of individuals, and the Polish General Survey, based on randomly

¹ Dummy variables for the father category and age were entered to the models as effect-coded variables, which makes it possible to interpret the values of parameters as a measure of the distance between the average (non-weighted) chances of transition for a given category and the sample mean. Omitted categories were, respectively, “Farmers and agricultural workers” and those aged 60 to 65. Parameters for these categories were established in models using other omitted categories for fathers and age.

selected households. As regards the analysis for the communist period, available data sets for neighbouring years did not exist. An analysis based on the comparison of different years limits the possibility of making conclusions on changes although it does not exclude them.

Two Transitions

Table 1 shows the transition rates to secondary and tertiary education. As one can see, the percentage of primary-school graduates who continued their education in vocational and secondary school systematically increased. This category rapidly grew in the period 1982–92—from 54.4% to 72.7%; by 1998 it reached 80.1%, and in 2002—84.1%. In the case of transition to tertiary education, while in 1982 the percentage of secondary-school graduates stood at 29.6%, it increased in the 1990s to 35%–37%. Until 2002 it rose to 44.2%, which was much more than in the 1980s. Whatever reason was behind this trend in transition rates, capitalist Poland witnessed a decrease in secondary-school leavers as compared to communist Poland.

Table 1
Transition to Secondary and Tertiary Levels

Years	Percentage of primary school leavers who continued education in secondary level	Percentage of secondary school leavers who continued education in tertiary level
1982	54.4	29.6
1992	72.7	36.6
1995	73.7	35.7
1998	80.1	34.2
2002	84.1	44.2

Let us look at the changes in educational selection. Table 2 presents the coefficients of the canonical correlations that reveal the association between social origin (defined in terms of the six EGP categories of the father) and the dichotomic division into school leavers and those who continued their educational path.² Higher values indicate the increasing effects of the family background on the respective transition.

When interpreting the changes in the canonical correlations we confront them with the two basic tendencies reported in previous research. One can easily see that the first one, which revealed a more rigid transition to secondary rather than to tertiary schools, also took place in Poland. Beginning with the 1980s the father category strongly affected the selection to secondary schools, and this relationship also remained strong after the communist system collapsed. It does not imply a lack of changes; in the second half of the 1990s the gap between the sizes of these correlations

² We report values of coefficients of canonical correlations obtained for the so-called first pair of variates, which maximise this association, i.e. account for its largest part (see Klecka 1980). It should be noted that there is no satisfactory usable test statistics that can be employed to establish the statistical significance of canonical correlations and one cannot assess the standard errors of them. These values were established using discriminant analysis, with transition to secondary, and—separately—tertiary education, defined as dependent variables, and the EGP six-fold division of the father being an explanatory variable.

Table 2

Coefficients of Canonical Correlations Between Fathers' EGP Classes and Transition to Secondary and Tertiary Levels

Years	Coefficients of canonical correlations between fathers' EGP classes and:	
	Dichotomic division of primary school leavers into those who continued education in secondary level and those who exited school	Dichotomic division of secondary school leavers into those who continued education in tertiary level and those who exited school
1982	.36	.17
1984	.34	.24
1987	.36	.21
1992	.38	.19
1993	.38	.19
1995	.37	.24
1998	.37	.26
2002	.28	.20

narrowed relative to the earlier period of time. As shown in column two of Table 2, this narrowing gap results from a certain increase of association between the father category and transition to the tertiary level.

As regards the second tendency—concerning the pattern of educational transition over time—the findings confirm previous results that in Poland the effect of the family background increased in the 1990s (Domański 2000). Nevertheless, the most important question concerns what happened in the following years. It shows that until 2002 there was a subsequent change in that association as social origin dropped for both transitions. While in the period 1995–98 the canonical correlation between the occupational category of the father and the transition to secondary school remained at 0.37, by 2002 it declined to 0.28. It was paralleled by a decrease—from 0.24 to 0.20—of the correlation between the father's EGP classes and transition to tertiary school. One can preliminarily conclude that the first decade of emerging capitalism in Poland was marked by an increase in educational inequality, followed by a return to a less rigid selection.

The Structure of Selection

The logic of social stratification dictates that students from the middle classes gain higher access to education in comparison to the lower ones. Table 3 presents the coefficients for the EGP categories of the father from the logistic regression analysis of transition to secondary education with controlling for the effect of sex and age. The results of the corresponding model for transition to post-secondary level are found in Table 4. Positive signs indicate increasing effects of the respective father's categories (relative to the hypothetical average effect); negative signs indicate decreasing effects.

First, in each year, students whose fathers were employed in professional and managerial categories had the best chances of transition to secondary school. In 1982 the odds of students coming from these categories were 6.77, thus almost seven times higher than average. For other non-manual categories it stood at 1.99, and in the case

Table 3

Logistic Regression of Primary School Selection in Poland. Exponential Coefficients

Independent variables	1982	1987	1992	1995	1998	2002
Fathers EGP class (contrasted with mean)						
Higher professionals and managers	6.77**	4.95**	10.11**	6.88**	4.30**	2.95**
Lower professionals and managers	1.99*	3.79**	2.51**	1.94*	2.16**	.49
Owners	1.08	.84	.63	.98	.95	.59
Skilled workers	.60**	.65**	.88	.82	.94	.33
Unskilled workers	.55**	.43**	.32**	.31**	.35**	.28
Farmers and agricultural labourers	.21**	.22**	.22**	.30**	.34**	.13
Male	1.42**	1.50**	1.41*	1.01	1.04	.93
Age (contrasted with mean)						
21–30	3.01**	3.48*	2.30**	2.66**	2.18**	1.78**
31–40	1.73**	2.09*	2.06**	2.14**	1.45*	2.10**
41–59	.60**	.58**	.72**	.70*	.85	.84
60–65	.32**	.24**	.29**	.25**	.38**	.32**
Constant	2.97	3.85	5.15	5.15	6.5	22.5
R ² (Nagelkerke)	.29	.22	.31	.26	.20	.18
Percentages of correctly classified in model	70.3	78.1	78.1	76.3	80.3	85.7

* p < 0.05

** p < 0.01

Table 4

Logistic Regression of Secondary School Selection in Poland. Exponential Coefficients

Independent variables	1982	1987	1992	1995	1998	2002
Fathers EGP class (contrasted with mean)						
Higher professionals and managers	1.78	2.68**	2.16**	3.31**	3.88**	1.57**
Lower professionals and managers	1.21	1.20	1.56*	1.10	1.19	1.67*
Owners	.97	.86	.52	1.00	1.10	1.17
Skilled workers	.80	.78	.67	.84	.62**	.88
Unskilled workers	.52	.67	.99	.36**	.54	.87
Farmers and agricultural labourers	1.14	.92	.87	.91	.58**	.43**
Male	1.09**	1.17	1.07	.80	.85	1.02
Age (contrasted with mean)						
21–30	.91	.60*	.93	.88	1.08	1.43*
31–40	1.55*	.95	1.09	1.27	.78	1.08
41–59	1.04	1.08	1.34	1.33	1.46*	.88
60–65	.68	1.63	.73	.68	.83	.74
Constant	.35	.92	.52	.50	.52	.79
R ² (Nagelkerke)	.04	.11	.07	.09	.14	.08
Percentages of correctly classified in model	69.6	61.6	63.0	67.7	70.7	58.2

* p < 0.0

** p < 0.01

of the children of owners—1.08. Children whose fathers were from the working class and agricultural categories clearly had worse chances that were below average.

The results in Table 4 demonstrate that the competitive advantage of persons from professional and managerial families were less pronounced in the selection to tertiary school. However, almost in each year those whose fathers were in this category paid off more in comparison to other categories. The offspring of professionals and managers were followed by the offspring of non-manual workers, owners, skilled workers, unskilled workers and farmers.

Second, there is a significant cross-time variation in the degree of educational inequality. The disparity between odds for the categories of the father increased in the 1990s with a distinctive improvement of chances for students with fathers who were professionals and managers. In the period 1987–1992 their odds of transition to secondary school increased from 4.95 to 10.11; however by 1995 it had declined to 6.88. Since 1995 this group has systematically fewer profits, and in 2002 the educational premium for it provided only 2.95 more chances of transition to secondary school—in comparison to the average chances in Poland.

As regards stratification in access to tertiary school, it developed in a slightly different pattern. The parameter estimates in Table 4 show that in this case the professional/managerial category of the father also provided the highest chances of transition, but it did not remain stable for the whole period of time. The odds for this category increased from 1.78 to 2.68 already in the 1980s, from 1987 to 1992 they declined, and next—by 1998—their relative advantage rose again. In 1998 they peaked at 3.88 with a sharp decline of this gap later on. In the period 1998–2002 social distances between the father categories narrowed overall, and in 2002 persons from professional/managerial families faced even less chances of transition than persons coming from the lower non-manual strata.

Tertiary School Tracking

The dichotomic division into secondary school graduates and those who continued their education on the tertiary level provides an overall picture of the changes. However, there are various educational paths on the secondary and tertiary school level and social origin affects assigned to them. In order to gain deeper insight into the structure of educational inequality, I will attempt to pursue the effect of the father's education on tertiary-school tracking. One can hardly analyse long-term changes in secondary school tracking as—after collapse of the communist system—it was transformed.

Let us proceed from the dichotomised outcome as a dependent variable into a division consisting of four tracks: (i) secondary-school graduates who completed the university level, (ii) persons who ended their educational career with incomplete university studies, (iii) persons who obtained a diploma of some post-secondary school, and (iv) those who left secondary school and exited from the school system.

Table 5 is a prelude to the examination of the effect of social origin on tertiary-school tracking. It reports the coefficients of canonical correlations between social origin (defined in terms of the six EGP categories of fathers) and the nominal variable defined in terms of the four tracks.

A comparison of canonical correlations presented in Table 2 and Table 5 suggests that the family background affected transition to tertiary level less strongly than tertiary-school tracking. The values of corresponding coefficients in Table 5 are higher as compared to those in Table 2. Nevertheless, social origin still exerts more impact on transition to secondary school than tertiary-school tracking. Turning to the cross-

Table 5

**Coefficients of Canonical Correlations Between Fathers' EGP Classes
and Transition to Four Tracks on Tertiary Level**

Dependent variable	1982	1984	1987	1992	1993	1994	1995	1998	1999	2002
Division of secondary school leavers into those who (i) exited from school, (ii) graduated from university level, (iii) uncompleted university (iv) graduated from some post-secondary school	.20	.25	.23	.18	.21	.28	.28	.35	.34	.23

time variation, the tertiary education tracking tends to corroborate a cyclical pattern revealed for transition defined in terms of dichotomised outcomes. We see that in 1982 social origin has been relatively less important factor of tracking than in 1984–1987. Until 1987 this association increased, then declined. However, since the mid-1990s it rose again until its highest in 1998, after which it declined in the period 1998–2002.

To specify who gained and who lost I conducted a multinomial logistic regression, which—in multiplicative formula—expresses the association between the class position of the father and tertiary-school tracking as a set of odds ratios. Consequently, the “returns” to social origin regarding educational tracks were measured in relative terms. I concentrated on the competitive (dis)advantage provided by the specific class position of the father compared to the chances provided by other class position with respect to the odds of transition to track rather than exiting the school system (omitted category). The class position of the father was entered in the models as dummy-coded variables with an omitted category being “farmers and agricultural workers.”

Table 6

**Multinomial Logistic Regression of Secondary School Selection in Poland in 1982^a.
Exponential Coefficients**

Independent variables	Completed university	Uncompleted university	Some post-secondary school
Fathers EGP class			
Higher professionals and managers	2.24*	1.17	.84
Lower professionals and managers	1.59	.52	.73
Owners	1.64	.00	.60
Skilled workers	.88	.24	.90
Unskilled workers	.35	.25	.80
Male	1.75	.99	.41*
R ² (Nagelkerke)	.17		

* p < 0.05

^a Values of parameters established with controlling for age.

In order to examine the question of change in the patterns of tertiary-school tracking by the father category, I focused on results from three points of time, namely: 1982, 1998, and 2002. A comparison of these data suggests, first, that clear educational

Table 7

**Multinomial Logistic Regression of Secondary School Selection in Poland in 1998^a.
Exponential coefficients**

Independent variables	Completed university	Uncompleted university	Some post-secondary school
Fathers EGP class			
Higher professionals and managers	9.37**	4.87	.54
Lower professionals and managers	2.12*	2.55	1.83
Owners	1.43	9.63**	.62
Skilled workers	.84	2.40	1.28
Unskilled workers	.37	2.76	1.76
Male	1.11	.79	.37*
R ² (Nagelkerke)	.24		

* p < 0.05

** p < 0.01

^a Values of parameters established with controlling for age.

Table 8

**Multinomial Logistic Regression of Secondary School Selection in Poland in 2002^a.
Exponential Coefficients**

Independent variables	Completed university	Uncompleted university	Some post-secondary school
Fathers EGP class			
Higher professionals and managers	5.90**	2.28*	2.55
Lower professionals and managers	7.69**	1.13	3.15*
Owners	3.49*	1.46	3.85
Skilled workers	2.51**	1.00	3.44**
Unskilled workers	2.89**	.75	3.24
Male	1.20	1.49	.45
R ² (Nagelkerke)	.17		

* p < 0.05

** p < 0.01

^a Values of parameters established with controlling for age.

inequality persists. Intergenerational reproduction of educational opportunities is displayed mostly in the track leading to completed university level, where graduates are drawn mainly from the offspring of professional and managerial classes. In contrast, it holds that the lower the social origin is, the lower the chances are, which especially concerns unskilled workers and farmers (omitted in the model). This pattern was specifically reversed in the track leading to some post-secondary school. Results from the last column of Tables 7–8 clearly demonstrate that the offspring of professionals and managers had lower “chances” to graduate from some non-university school relative than the children of farmers, workers, owners and lower non-manual strata.

Second, by comparing these associations across time, I found a strengthening link between the class of origin and tertiary-school tracking in the period 1982–1998 and a weakening of it from 1998 to 2002. Overall, the effect of social origin has been weakest under the communist regime and in the most recent stage of the market

transition. What are the concrete findings? Most visibly, access to higher education (completed university level) was most strongly tied to the offspring of the service class (professionals and managers) in 1998. In contrast, chances of gaining access to this most advantageous educational level decreased significantly between 1998–2002. Certainly, having a father in professional and managerial occupations appeared to be a less relevant asset also in 1982. As shown in Table 6, students from this category had 2.24 more odds to graduate from a university than children of farmers and agricultural labourers. By 1998 this disparity increased to 9.37 (Table 7) and then declined to 5.90 in 2002 (Table 8). This slowdown resulted in the loss of the privileged position of the offspring of professional and managers in favour of students from other non-manual strata whose odds stood at 7.69.

Discussion

The primary goal of this contribution was to shed light on educational transitions in Poland. Transitions to both secondary and university schools are unquestionably selective by social class. The only question is whether these patterns changed over last two decades, when the communist regime collapsed and new inequalities emerged. More specifically, one could expect three scenarios based on previous findings that documented an increase in the effect of social origin on educational paths in the 1990s (Domański 2000; Mach 2003).

The first of them stated that after a substantial increase in the 1990s high educational inequalities persisted in the following period of time. The second scenario, corresponding to what many studies in educational inequalities have shown, maintained that after the growth of the selective role of family background, this association should decline to appear neither more nor less hereditary today than twenty years ago. According to the third scenario, the influence of parental class might increase.

The main findings of the investigation can be summarised as follows. First, it showed that the second scenario proved to be most valid. The effect of class position of the father significantly increased in the 1990s, then—by 2002—it declined to the same degree as before communism collapsed in the 1980s. Second, in accordance with the findings of all previous studies, secondary school transition proved to be more selective as compared to transition to the university level. The third point concerns the patterns of this effect. As regards transition to secondary school, the analyses confirmed distinctively higher competitive advantages of professional/managerial families in the whole period of time. Specifically, they overrun in chances of access to secondary schools other non-manual categories, owners, working class families and farmers. Surprisingly, this pattern did not hold for the university transition. The data suggest that in 2002 students with fathers from the professional/managerial class no longer enjoyed the highest chances of transition to the university level and the same applies as regards to the selection to the most effective track of graduating from the university.

Certainly, these significant changes over time depart from general patterns detected in Western societies, where long-lasting stability in educational inequalities prevail. First several years of transformation to the market economy in Poland stimulated rapid ups and downs in the effect of the parental status on access to education. While not fitting to the general patterns, they are by no means striking. The growing role of the market forces inflated the market value of educational credentials. The rising price of education, in turn, made it more exclusive by social origin, which, consequently, led to an increase in its selective role.

The analysis went further in showing what happened with inequalities in the later stage of post-communist transition. According to the findings—in a very short period of time—the tendency of the selective role of the family background to rise was reversed. In 1998–2002 one can observe a decline in the effect of the class origin on both the transition to secondary and university level. Looking at the recent developments in the educational system in Poland, one can find an explanation for this finding in terms of the increasing supply of schools, mainly in the private sector. Bearing in mind that the number of universities in the period 1989–2002 increased from 112 to 387 (with private ones accounting for the vast bulk of this increase), channels to education widened and the transitions became less tied to social origin and more open. Further research needs to consider the consequences of educational expansion. The basic question remains whether the educational reforms have given birth to a steady decline in the link between education and parental status.

References

- Beskid, Lidia (ed.) (1984) *Warunki życia i potrzeby społeczeństwa polskiego* [Conditions of Life and Needs of Polish Society]. Warszawa: IFiS Publishers.
- Blaau, Peter and Duncan, Otis D. (1967) *The American Occupational Structure*. New York: Academic Press.
- Blossfeld, Hans-Peter (1993) "Changes in Educational Opportunities in the Federal Republic of Germany: A Longitudinal Study of Cohorts Born between 1916 and 1965," in: Shavit, Y. and Blossfeld, H.-P. (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 51–74.
- Bourdieu, Pierre (1986) *Distinction: A Social Critique of the Judgment of Taste*. London: Routledge & Kegan Paul.
- Bowles, Samuel, and Gintis, Herbert (1976) *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life*. London: Routledge & Kegan Paul.
- Cichomski, Bogdan and Morawski, Paweł (1995) *Polski Generalny Sondaż Społeczny. Skumulowany komputerowy zbiór danych* [Polish General Social Survey]. Warsaw: Instytut Studiów Społecznych UW.
- Cobalti, Antonio and Schizzerotto, Antonio (1993) "Inequality of Educational Opportunity in Italy," in: Y. Shavit, and H. P. Blossfeld, (eds), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 155–176.
- Collins, Randal (1971) "Functional and Conflict Theories of Educational Stratification." *American Sociological Review* 36: 1002–1019.
- De Graaf, Peter M. and Ganzeboom, Harry B. (1993) "Family background and educational attainment in the Netherlands for the 1891–1960 Birth Cohorts," in: Y. Shavit and H. P. Blossfeld (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 75–100.
- Domąński, Henryk (1999) *Hierarchie i bariery społeczne w latach 90-tych* [Hierarchies and Social Barriers in the 1990s]. Warszawa: Instytut Spraw Publicznych.

- Domański, Henryk (2000) "Selekcja ze względu na pochodzenie społeczne do szkoły średniej i na studia wyższe" [Selection to Secondary and University-Level Education]. *Nauka i Szkolnictwo Wyższe*, 2/16: 97–108.
- Domański, Henryk (2004) *Struktura społeczna* [Social Structure]. Warszawa: Wydawnictwo Naukowe Scholar.
- Dronkers, Jaap (1993) "Educational Reforms in the Netherlands. Did it Change the Impacts of Parental Occupation and Education." *Sociology of Education* 66: 262–277.
- Erikson, Robert and Goldthorpe, John H. (1992) *The Constant Flux: A Study of Class Mobility in Industrial Societies*. Oxford: Clarendon Press.
- Featherman, David L., Jones, Frank L. and Hauser, Robert M. (1978) *Opportunity and Change*. New York: Academic.
- Garnier, Maurice A. and Raffalovich, Lawrence E. (1984) "The Evolution of Educational Opportunities in France." *Sociology of Education* 57: 1–11.
- Gerber, Theodore P. and Hout, Michael (1993) "Educational Stratification in Russia During the Soviet Period." *American Journal of Sociology* 101: 611–660.
- Goldthorpe, John H. (1996) "Class analysis and reorientation of class theory: The case of persisting differentials in educational attainment." *British Journal of Sociology* 47: 481–505.
- Goux, Dominique and Maurin, Eric (1997) "Meritocracy and Social Heredity in France: Some aspects and Trends." *European Sociological Review* 13: 159–178.
- Halsey, Anthony H. (1977) "Towards Meritocracy? The Case of Britain," in: J. Karabel, J. and A. H. Halsey (eds.), *Power and Ideology in Education*. New York: University Press, pp. 173–186.
- Hanley, Eric and McKeever, M. (1997) "The Persistence of Educational Inequalities in State-Socialist Hungary: Trajectory Maintenance versus Counterselection." *Sociology of Education* 70: 1–18.
- Heyns, Barbara and Białecki, Ireneusz (1993) "Educational Inequalities in Postwar Poland," in: Y. Shavit, and H. P. Blossfeld (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 303–336.
- Hout, Michael, Raftery, Adrian and Bell, Wendy (1993) "Making the great: educational stratification in the United States, 1925–1989," in: Y. Shavit, and H. P. Blossfeld (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 25–51.
- Inkeles, Alex and Smith, David H. (1974) *Becoming Modern: Individual Change in Six Developing Countries*. Cambridge Mass.: Harvard University Press.
- Jonsson, John and Mills, Collin (1993) "Social mobility in the 1970s: a study of men and women in England and Sweden." *European Sociological Review* 9/2: 229–247.
- Kerckhoff, Alan and Trott, J. M. (1993). "Educational Attainment in Changing Educational System," in: Y. Shavit, and H. P. Blossfeld (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 133–155.
- Kerr, Clark et al. (1960) *Industrialism and Industrial Man*. Cambridge: Harvard University Press.
- Klecka, William R. (1980) *Discriminant Analysis*. London: Sage Publications.
- Kreidl, Martin (2004) "Politics and Secondary School Tracking in Socialist Czechoslovakia, 1948–1989," *European Sociological Review* 20: 123–140.
- Lenski, Gerhard (1966) *Power and Privilege*. New York: McGraw-Hill.
- Mach, Bogdan (2003) *Pokolenie historycznej nadziei i codziennego ryzyka* [Generation of Historical Hope and Everyday Hope]. Warszawa: Wydawnictwo Instytutu Studiów Politycznych PAN.
- Mare, Robert (1981) "Change and Stability in Educational Stratification." *American Sociological Review* 46: 78–87.
- Marshall, Gordon, Swift, Adam and Roberts, Stephen (1997) *Against the Odds. Social Class and Social Justice in Industrial Societies*. Oxford: Clarendon Press.
- Mateju, Petr (1993) "Who Won and Who Lost in a Socialist Redistribution in Czechoslovakia?" in: Y. Shavit, and H. P. Blossfeld (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 252–272.
- Parsons, Talcott (1971) *The System of Modern Societies*. Engelwood Cliffs: Prentice-Hall.
- Raftery, Adrian E. and Hout, Michael (1990) *Maximally Maintained Inequality: Expansion, Reform, and Opportunity in Irish Education 1921–1975*. Paper on the ISA Research Committee on Social Stratification conference, Madrid.
- Robert, Peter (1991) "Educational transition in Hungary from the post-war period to the end of the 1980s." *European Sociological Review* 7: 213–236.
- Robinson, R. V. and Garnier, Maurice A. (1985) "Class reproduction among men and women in France: Reproduction theory in its home ground." *American Sociological Review* 91: 250–280.

- Saar, Ellu (1997) "Transitions to Tertiary Education in Belarus and the Baltic Countries." *European Sociological Review* 13: 139–158.
- Sawiński, Zbigniew and Stasińska, Marzanna (1986) *Przemiany w oddziaływaniu czynników pochodzenia na dwóch progach selekcji międzyszkolnej* [Changes in Influence of the Social Background on Two Thresholds of Inter-school Selection]. Zeszyt 42 Zespołu Badań Socjologicznych nad Problemami Oświaty. Warsaw: Instytut Socjologii UW.
- Shavit, Yosi and Blossfeld, Hans-Peter (eds.) (1993) *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press.
- Słomczyński, Kazimierz M. et al. (1989) *Struktura społeczna: schemat teoretyczny i warsztat badawczy* [Social Structure: Theoretical Scheme and Research]. Warszawa: IFiS Publishers.
- Szelenyi, Szonja and Aschaffenburg, Karen (1993) "Inequalities in Educational Opportunity in Hungary," in: Y. Shavit. and H. P. Blossfeld (eds.), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 273–302.
- Treiman, David J. (1970) "Industrialization and Social Stratification," in: E. O. Laumann (ed.), *Social Stratification: Research and Theory for the 1970s*. Indianapolis: Bobbs Merrill, pp. 207–234.
- Treiman, David J. and Yamaguchi, Kaoru (1993) "Trends in Educational Attainment in Japan," in: Y. Shavit, and H. P. Blossfeld (eds), *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*. Boulder: Westview Press, pp. 229–251.
- Vrooman, J. C. and Dronkers, Jaap (1986) "Changing Educational Attainment Process: Some Evidence from the Netherlands." *Sociology of Education* 59: 69–78.