Sociologický časopis

Czech Sociological Review

Volume 39 (2003): 3

Sociologický časopis
Czech Sociological Review

Vydává Sociologický ústav
Akademie věd České republiky

České vydání:

Marek Skovajsa, *šéfredaktor*

Published by the Institute of Sociology
Academy of Sciences of the Czech Republic

English issues:

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tisk/Printers Tiskárna UJI, Praha 5
návrh obálky/Cover Design Filip Blažek

Sociologický časopis/Czech Sociological Review (ISSN 0038-0288). Objednávky přijímá Postservis, Poděbradská 39, 190 00 Praha 9, tel. 800 104 410, e-mail: predplatne@prstc-p.cpost.cz a redakce. Objednávky do zahraničí přijímá redakce. Vychází 6 čísel ročně (4 česky, 2 anglicky). Cena 44 Kč, v zahraničí 14 € (14 $), Slovensko 65 Kč, roční předplatné v ČR 264 Kč.
Časopis je citován v *Current Contents/Social&Behavioral Sciences (CC/S&BS)*, v počítačové databázi *Social SciSearch* a v aktuálních oznámeních *Research Alert*, publikacích Institute of Scientific Information, USA. Obsah časopisu (od roku 1993) je uveřejněn na internetu na URL http://www.soc.cas.cz

Sociologický časopis/Czech Sociological Review (ISSN 0038-0288) is published bimonthly (4 issues in Czech, 2 issues in English) by the Institute of Sociology, Academy of Sciences of the Czech Republic. Orders: Czech Sociological Review, Jilská 1, 110 00 Praha 1, Czech Republic, e-mail: prodej@soc.cas.cz. One issue costs 14 $ (14 €).
The Review is cited in publications of the Institute of Scientific Information, *Current Contensts/Social &Behavioral Sciences (CC/S&BS)*, *Social SciSearch* and in *Research Alert*.
Contents of the Review (since 1993) are published on the Internet URL http://www.soc.cas.cz

Podávání novinových zásilek povoleno ŘPP Praha, čj. 1043/95 ze dne 20. 3. 1995. MK ČR E 4901.

VOLUME 39, NUMBER 3, JUNE 2003

Sociologický ústav AV ČR, Praha
Institute of Sociology, Academy of Sciences, Prague, Czech Republic

Sociologický časopis
Czech Sociological Review

(ISSN 0038-0288) vydává Sociologický ústav Akademie věd ČR v Praze. Vychází 6x ročně (4 čísla v češtině a 2 v angličtině)

Sociologický časopis/Czech Sociological Review je recenzovaný oborový časopis zaměřený na oblast sociologické teorie a metodologie, přinášejici výsledky a interpretace sociologických výzkumů. Zaměřuje se na rozvoj oboru a jeho výuku a zároveň chce být užitečný při řešení praktických problémů české sociální a ekonomické politiky.

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Návštěvní dny v redakci jsou pondělí a čtvrtek 10-16 hod.

Sociologický časopis
Czech Sociological Review

(ISSN 0038-0288) is published 6x annually (4 issues in Czech with abstracts and article summaries in English and 2 issues in English) by the Institute of Sociology of the Academy of Sciences of the Czech Republic in Prague.

Sociologický časopis/Czech Sociological Review is a scholarly review focusing on the field of sociological theory and methodology, and the dissemination of the results and interpretation of sociological research. Its attention is directed towards the development of the field and its teaching, while simultaneously striving to contribute to the solution of the practical problems of Czech social and economic policy.

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Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3

Thematic Issue

Higher Education

Guest Editor

Petr Matějů
Institute of Sociology, Academy of Sciences of the Czech Republic,
Prague

June 2003

Editorial: Czech Higher Education at the Crossroads

This issue of the *Czech Sociological Review* is devoted primarily to higher education, its development, structural reforms, financing, accessibility, and inequality, with special emphasis on the Czech Republic and other transforming societies.

The decision to have sociologists, economists and policy-makers address some of these issues was not accidental. The accessibility of higher education has for decades been one of the central issues in modern sociology. Sociological research in most advanced countries has provided valuable results for policy-makers striving to design measures and policies aimed at reducing inequalities in access to higher education.

Though the research on social stratification evolved very rapidly once it was freed from ideological control, sociologists in post-communist countries still owe policy-makers relevant and unambiguous results concerning the development of educational inequality after the demise of socialist redistributive systems that controlled – though with varying degrees of success – the growth of and access to higher education through structural, financial and political measures. There is no doubt that a significant reduction of inequality in access to higher education is not possible without a true expansion of the tertiary education system.

In 'Western' countries, where inequality in access to higher education has diminished or at least has been kept stable, tertiary education had grown from an elite to a mass institution and enrolment rates have risen from the low teens to close to fifty percent of birth cohorts. In most of the former communist countries, such expansion, supported by organisational reforms has not taken place. Therefore, in order to meet equity goals and succeed in global economic competition, post-communist countries must expand their tertiary education systems and provide significantly more opportunities to meet the steadily increasing demand for higher education.

Owing to the still lower level of economic performance and available financial resources, the expansion of tertiary education in most of the post-communist countries is to be achieved under tough fiscal constraints. Since the development of human capital plays a crucial role in determining competitiveness and sustainable growth, and as the reduction of educational inequality will require a rapid growth of educational opportunities, post-communist countries are facing deep reforms of their tertiary educational systems, particularly their financing. If these reforms are to bring about sustainable growth in university budgets and greater efficiency, the policy-makers can hardly avoid implementing some forms of 'cost sharing', i.e. the financial participation of students and other private entities ultimately benefiting from the 'production' of the universities.

Available surveys and analyses show that such reforms will be quite difficult, not only because of the still strong 'socialist residues' in people's perceptions of ed-

ucation as part of their social entitlement, but also because post-communist countries show more and still growing socio-economic inequality in access to tertiary education than many advanced countries. There is a common notion that shifting some of the cost burdens of higher education from taxpayers to students, as the potential beneficiaries of education, will further increase socio-economic inequality in access to higher education. Is there any proof of this assumption from the countries where cost sharing has been implemented, along with a system of loans, student aid and subsidies?

There is no doubt that promoting equity in access to tertiary education and financing its growth are becoming intertwined issues, which bring together sociologists, economists and policy-makers. Clearly, the key question for policy-oriented sociological and economic research is whether there is a principal contradiction between equity and cost sharing. In order to promote research on these highly topical issues and raise arguments for policy and public debate, a group of scholars – sociologists, economists, and policy makers – decided to hold an international conference in Prague on *University Reform and Access to Higher Education*. This special issue, prepared with the collaboration of the organisers and the conference, aims to show where we are in addressing these issues and where the major gaps still remain.

Let us now briefly introduce the individual contributions.

The paper co-authored by Petr Matějů, Blanka Řeháková a Natalie Simonová (*Transition to University under Communism and after Its Demise: The Role of Socio-economic Background in the Transition between Secondary and Tertiary Education in the Czech Republic 1948–1998*) addresses the trend in inequality in access to tertiary education in the Czech Republic since 1989, when political control over the selection process was removed, redistributive policies were abandoned, and universities gained autonomy, but very soon fell into a deep financial crisis that hindered the further expansion of educational opportunities to meet the fast-growing educational aspirations. The authors conclude that class inequality in making the successful transition from secondary to tertiary education has increased significantly since 1989, particularly due to the widening gap between individuals from families of professionals on the one hand and semi-skilled and unskilled workers on the other.

Péter Róbert, one of the leading Hungarian sociologists of social stratification, focuses in his paper (*Self-selection and Selection: Transition from Secondary to Tertiary Education in Hungary*) on the main factors explaining persisting inequality in attaining university education in Hungary, specifically the role of social background in the self-selection process in the transition from secondary to tertiary education. His analysis of extensive data, drawn from a survey of all Hungarian secondary school graduates in 1998 that were eligible to apply for university, confirms that self-selection is more strongly affected by social origin than passing the entrance exams is. This conclusion supports the assumption of the above-mentioned article that children coming from lower social strata and less advantaged family environments decide not to engage in the tough competition with their more socially advantaged peers for a very limited number of educational spots at universities.

The article by Bruce Johnstone (*Cost Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility in a Comparative Perspective*) addresses the central issues of the conference from an economic perspective. It outlines the main theoretical and practical rationales for shifting some of the higher education costs from governments and taxpayers to students and families. These rationales range from the sheer need for other-than-government revenue in a time of worldwide fiscal austerity, to the ideas that those who benefit should share the cost, to the neoliberal economic notion that tuition encourages greater institutional efficiency and responsiveness. The article also reviews the main arguments against cost sharing, which include socio-political ideologies that hold higher education to be a social entitlement, and the related view that society is the major beneficiary of higher education. The article goes on to document the actual implementation of cost-sharing policies (and especially tuition policies) in several countries and the student financial assistance policies that are designed to protect or encourage access among low-income students. The article concludes by looking at the relationship between cost sharing and enrolment behaviour in terms of the decision to apply to, and matriculate in, any higher educational institution, the decision to apply to a particular form of post-secondary education, the likelihood of degree completion, and the likelihood of going on to more advanced levels of higher education.

Bill Weldon's paper (*Considerations for Higher Education Systems in Post-Communist Societies: A Current Look at Czech Higher Education*) is an interesting attempt to look at Czech higher education from the perspective of the key stakeholders, experts and policy-makers. The paper, based on in-depth interviews with twenty experts, sends a clear warning to all those who are responsible for the future development of tertiary education in the Czech Republic: *"Czech higher education needs a champion. Within it there exists an apparent ambiguity of leadership. Leadership by committee, like a Rectors Conference, or leadership by influence, like some individual educators, is muddled in a confusion based on a lack of clearly defined leadership principles."* Paradoxically, the author's analysis of the interviews shows that there is a lack of consensus, not only with regard to the evaluation of the current situation, but also as far as the necessity of the reforms, their goals, policies and instruments are concerned. This is quite an alarming finding, particularly in view of the fact that the examples of the most recent successful educational reforms (e.g. Ireland or Finland) show that such reforms would not have been possible without a strong consensus among all key actors.

There are two contributions to the section of State-of-the-Art Reports, both focusing on the Czech educational system. With respect to the system of tertiary education there is a report by Petr Matějů and Natalie Simonová (*Czech Higher Education Still at the Crossroads*), which addresses the development of higher education in the Czech Republic, its legislative aspects, adopted and rejected structural and institutional reforms, developments in financing, enrolment and efficiency indicators. This report uses statistical data and other objective information to generally support the picture drawn by Bill Weldon: Czech higher education suffers from a lack of dy-

namism and seems to be in the trap of a stalemate typical for many transforming societies.

The leading Czech specialist on measurement in education and the former national co-ordinator of international student assessment projects, Jana Straková, provides a report with a brief overview of the large-scale studies of educational achievement that took place in the Czech Republic during the past decade. The report offers information on the data collected in these studies and provides a summary of the findings. Brief information about national activities in the field of student assessment is also included. We have chosen to include this report because we believe that some of the problems in higher education in the Czech Republic have their roots in the lower levels of the school system.

The editors of this issue realise that the changes in higher education and its accessibility deserve more space, with a wider spectrum of questions being addressed and more opinions being expressed. As usual, the major limiting factor was the availability of space. Both the organisers of the conference and the editors of this issue of the *Czech Sociological Review* believe that their effort will increase awareness in higher education and interest in its interdisciplinary research, addressing the growth, financing and accessibility of higher education. The *Czech Sociological Review* will be open to publishing papers and reports resulting from the continuing debate on these highly topical issues.

Petr Matějů, Guest Editor
Jiří Večerník, Editor-in-Chief

University Reform and Access to Higher Education

Conference on University Reform and Higher Educational Accessibility with a Special Focus on Eastern and Central Europe Prague, Czech Republic, June 15-17, 2003

The conference on ***University Reform and Access to Higher Education*** is particularly timely, as universities throughout the world are facing three inexorable yet often conflicting pressures: (1) a rapidly increasing *demand* for higher education on the part of the young and adults alike; (2) an equally rapidly increasing *need* for expanded higher education participation, for the sake of a productive economy, a viable democracy, and an enlightened civil society; and (3) the inability of public revenues, despite these manifest public needs and benefits, to keep pace with the costs implied by this pressure for greater and more equitable participation in higher education. In the absence of sufficient resources, countries experiencing these pressures have no alternative but to 'solve' the problem either by restricting access–to the inevitable detriment of young persons from low income families, or from ethnic or linguistic minorities, or from rural regions–or by accommodating the enrollment pressure, but within increasingly underfunded, understaffed, and shabby universities.

This dilemma is particularly pressing in the formerly communist countries of Eastern and Central Europe. Here, universities and other institutions of higher education have had to undergo significant (and oftentimes costly) reforms in addition to the need to accommodate much larger student enrolments - on top of sometimes stagnant economies, greatly limited tax capacities, and compelling competing public needs in e.g. social services, public infrastructure, and environmental restoration. Finally, as the East and Central European countries have turned to other-than-governmental revenues to supplement the limited tax funds (e.g. to tuition and other fees for the costs of food and lodging) political, ideological, and legal constraints have forced virtually all of the new burden of cost sharing onto those students (and their families) who are clearly academically acceptable, but who failed to win one of the limited number of highly competitive 'free' spaces. These students (or *would-be students*) are far more likely to be from working class or rural backgrounds or from regions of ethnic or linguistic minorities. (This is the case also in Russia and most of the other former Soviet republics, as well as many countries in Africa.) For this reason, while the conference will include higher educational scholars and policy analysts from Western as well as Eastern and Central Europe and from North America, the focus will be upon the Czech Republic, Poland, Hungary, Slovakia, and Slovenia.

The Conference will be held at the Parliament of the Czech Republic in Prague, June 15-17, 2003. It will bring together scholars, policy makers and experts from the Czech Republic, Hungary, Poland, Slovenia and Slovakia and higher education experts from the EC, UNESCO, the OECD, the World Bank and leading academic institutions in Europe, North America, and elsewhere to exchange information, experiences and strategies and create collaborative relationships for the future. The conference specifically aims to promote interdisciplinary policy-oriented research on higher education in countries in Eastern and Central Europe and to develop a common strategy for implementing reforms in financing higher education. A further goal is to enrich the public and political debate in the region with expert views.

Funding for the conference has been provided by the International Comparative Higher Education Finance and Accessibility Project (SUNY Buffalo), the Open Society Fund, the Ford Foundation, ISEA - the Institute for Social and Economic Analyses, the Institute of Sociology, Academy of Sciences of the Czech Republic (from the grant # S7028203: *Obstacles to the Implementation of a Cost-sharing Principle in Financing Higher Education* provided by the Grant Agency of the Academy of Sciences), the Liberal-Conservative Academy CEVRO, and Auto Škoda, Czech Republic.

Transition to University under Communism and after Its Demise* The Role of Socio-economic Background in the Transition between Secondary and Tertiary Education in the Czech Republic 1948–1998

PETR MATĚJŮ**, BLANKA ŘEHÁKOVÁ, NATALIE SIMONOVÁ***
Institute of Sociology, Academy of Sciences of the Czech Republic, Prague

Abstract: The aim of this study is to assess the most recent trend in inequality in access to tertiary education in the Czech Republic. The authors put forward the hypothesis claiming that the period of stable inequalities in the years 1948–89 was followed by a period of growing inequalities during the post-communist transformation (1989–1999). The study focuses primarily on the cultural and socio-economic (class) dimensions of social origin and gender and their net effect on success in the transition between secondary and tertiary education. Theoretically the paper draws primarily on the work of Raftery and Hout [1996], Hanley and McKeever [1997], who claim that the chances of attaining higher education among individuals from families with a low social status can only increase on the condition that the demand for the given level of education has first of all been satiated among all the strata disposing of social and cultural capital. Another important theory they build on is the *theory of rational action* proposed by John Goldthorpe and Richard Breen [Goldthorpe 1996, Breen and Goldthorpe 1997]. The principal hypothesis (inequality has grown) is tested using log-linear analysis applied on the data from various surveys carried out between 1998–2000, merged into one data set. The authors construct several models of the influence of social origin on the chances of making a successful transition between secondary and tertiary education in the years between 1948 and 1999. The initial hypothesis of the growing effect of class origin on this transition in the period after 1989 has been confirmed. One of the strongest explanations for this trend is the insufficient expansion of the tertiary sector of education, which is incapable of satisfying the continually growing aspiration and corresponding demand for higher education in circumstances where socio-economic inequalities are on the rise.
Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3: 301–324

* The core institutional support for this research was provided by the Grant Agency of the Czech Republic (Grant # 403/03/30: Economic, Social and Cultural Sources of the Reproduction of Educational Inequality and Success on the Labour Market).

** The participation of Petr Matějů in this research was also supported by the grant from the CERGE-EI Foundation under a programme of the Global Development Network. All opinions expressed are those of the author(s), and have not been endorsed by CERGE-EI, WIIW, or the GDN.

*** Direct all correspondence to: Doc. PhDr. Petr Matějů, PhD., Institute of Sociology, Jilská 1, 100 00 Prague 1, Czech Republic, e-mail: mateju @soc.cas.cz

At the very early stages of the post-communist transformation, most of the formerly communist countries launched reforms of their tertiary educational systems pursuing two major goals: to re-establish academic freedoms and to create conditions for the expansion of tertiary education. From the sociological point of view, it was particularly the expansion of tertiary education that attracted the attention of scholars and policy-makers because it was assumed that the rapid growth of educational opportunities would prevent the growing socio-economic inequality and the formation of social classes from causing a further increase in the already high level of inequality in access to higher education.

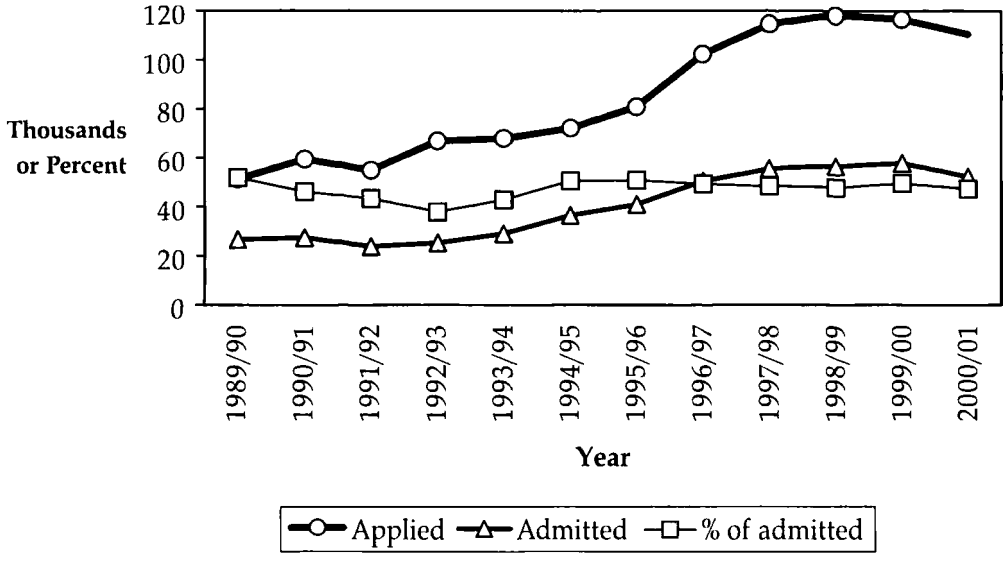
After a decade of post-communist development, sociologists should be able to offer solid empirical evidence of the actual effects reforms and policies (or the lack of them) have had on the development of inequalities in the odds of attaining higher education. Particular emphasis should be placed on the role of gender and socio-economic background, because these two dimensions of educational inequality were the primary targets of the communist educational policy agenda; unlike the post-communist governments, which left them to quite spontaneous development, with no consistent policies for addressing the relatively high level of inequality inherited from the socialist era.

The primary aim of this paper is to compare the development of inequality in access to higher education under the *communist* and *post-communist* regimes by testing hypotheses on the effect of various dimensions of socio-economic background and gender on the odds of making the transition between secondary and tertiary education. Though we focus primarily on the Czech Republic, the comparison of the two periods may contribute to a better understanding of the more general question of how the two historically unique types of social change (transition to socialism, post-communist transformation) shaped the inequality in access to higher education. As shown in a number of recent analyses [see e.g. Večerník 2001, Matějů and Kreidl 2001], the role of education in social stratification has markedly changed. Most importantly, a true revolution took place with regard to the economic returns on higher education. For instance, in the Czech Republic, which ranked among the most egalitarian countries before 1989, the effect of education on personal income doubled between 1988 and 1996 [Večerník 2001].[1]

Overall democratisation and significant growth in returns to higher education generated a fast growth in educational aspirations. Although the number of students rose by almost 60 percent between 1989 and 2001, the offer of educational opportu-

[1] While in 1988 each year of education brought a 'premium' of a 4% salary increase, in 1996 this premium had reached 8%. During the same period, the ratio of the wage of a person with a university education and that of a person holding a secondary school diploma increased from 1.48 to 2.37. Similar processes took place in other post-communist countries. As far as cross-national comparisons are concerned, OECD data show that the wage premium for higher education in post-communist countries is actually higher than in a number of more developed countries. The unsaturated demand for a labour force with higher education is the most likely explanation of why in transition countries people with tertiary education are *relatively* (i.e. in comparison with the less educated) better paid than those in more advanced countries.

Figure 1. Number of applicants for tertiary education, admitted students, and ratio of admitted to applied after 1989 in the Czech Republic



Source: *ÚIV (Institute for Information in Education).*

nities was too low to meet the steeply rising demand for tertiary education. As shown in Figure 1, the chance of being admitted did not change, it remained at about 50 percent. Owing to the rapid growth in the number of secondary school graduates and the steady accumulation of unsatisfied demand, the transition from secondary to tertiary education became the most critical moment in an educational career.

The growing *economic value* of education resulting in an increase of wage differentials, and the growing consistency between education, prestige, social status and self-perception [Matějů and Kreidl 2001] indicate that higher education has become a more valued asset than it was during socialism. This important change may increase sensitivity to the still limited offer of educational opportunities and especially to the growth of class inequality in access to higher education. Consequently, the issue of *equity in access to education* has become a true social and political issue that sociologists should be able to address, not only on the theoretical level, but also on empirical grounds.

The development of educational inequality in a theoretical perspective

In order to frame a hypothesis on the development of inequality in access to higher education after the fall of communism in a broader theoretical context, the principal hypotheses concerning the development of inequality in access to higher edu-

cation should be reviewed. We found six theoretical perspectives to be particularly relevant in this context: the modernisation theory, the cultural reproduction theory, the theory of 'maximally maintained' inequality, the rational action theory, the socialist transformation hypothesis, and the theory of trajectory maintenance.

The central argument of the *modernisation theory* [Blau and Duncan 1967, Featherman and Hauser 1978, Treiman 1970] is that the effect of social origin on educational attainment is declining over time as a consequence of industrialisation. The theory argues that industrialisation brought about an increasing demand for a skilled labour force, as well as a change in the principles underlying the allocation of individuals to occupational positions. As a consequence, the growth in educational opportunities and the change in the principles behind the allocation of education, forced by the demand for an effective functioning of the social system, led to a decline in the effect of social origin on educational attainment. The first tests of the modernisation theory by Blau and Duncan [1967] and Featherman and Hauser [1978] confirmed that, as far as the United States are concerned, the effect of social origin on educational attainment had declined and a significant part of the class inequality in access to higher education could be explained by socio-*psychological* rather than socio-*economic* factors [Sewell 1971, Sewell and Hauser 1975, Hauser, Tsai and Sewell 1983].

The *cultural reproduction theory* challenges the modernisation theory on the deepest grounds. It claims that because education in modern industrialised societies has become the most important channel to economic success and, at the same time, the meritocratic ideology has developed into a dominant norm of distributive justice, privileged social classes have abandoned using clearly ascriptive assets in securing advantages for their children and have developed new strategies for passing advantages to the next generation, which are compatible with the meritocratic ideology. The theory of various forms of capital, developed by Bourdieu [Bourdieu 1973, 1986], initiated a strong stream of analytical work attempting to asses the role of the transmission of *cultural* resources in the intergenerational transmission of socio-*economic* advantages and the reproduction of inequality. Thus, the maintenance of socio-economic privileges does not take place at the lowest levels of the educational system, but mainly at the level of post-secondary education. Therefore, the effect of social origin decreased only in the initial transitions.

Among the most successful attempts to expose this theory to empirical tests are the analyses that were carried out by Paul De Graaf [1986] and Paul DiMaggio [1982]. Both of them separated the *economic* and *cultural* components of social origin and showed that the effect of family *cultural* resources on educational attainment is independent of the *economic* situation of the family background. Moreover, De Graaf found that, at least in the Netherlands, the *stability* in the overall effect of the socio-economic status of the family background on the educational attainment of the children can be explained by two overlapping processes with opposite effects: a decrease in the effect of *economic* resources and an increase in the effect of *cultural* resources. Di Maggio was able to demonstrate that investments in cultural capital represent a specific element of the *status* culture, which predetermines the educational achievements of children, to a high degree independently of *class* position.

Interestingly enough, the attempt to show that socialism led to a decrease in the effect of socio-economic background on the educational attainment of children failed. Although Matějů and Peschar [1990] found that, at the end of the 1980s, the overall effect of family socio-economic status on the educational attainment of children was weaker in Czechoslovakia than in the Netherlands, the effect of its *economic* dimension was in fact stronger in Czechoslovakia than in the Netherlands.

Raftery and Hout [1993] developed the concept of *maximally maintained inequality* in education. According to this hypothesis, privileged social classes have the sufficient capacity to maintain advantages in access to higher education. Therefore, the chances of low-status groups can increase only when the demand for a given level of education is saturated among children who are better-off. The probability of low-status children making the transition can actually increase only with a further expansion of educational opportunities and a softening of the selection criteria (removing tuition fees, lowering entry requirements etc.). Raftery and Hout were able to corroborate their hypothesis on Irish data covering the period between 1921 and 1975. The results of the analysis showed that only the expansion of educational opportunities led to an increase in the chances for higher education among disadvantaged social groups, and did so mainly through a softening of the selection criteria (so as to accommodate the largest possible number of students), rather than through a change in the principles of educational stratification. They concluded that, in spite of a certain reduction in the effect of class on educational attainment, class inequality was not removed, but rather shifted towards higher levels of education.

The most recent attempt to explain the persisting class inequality in the odds of attaining higher levels of education in modern industrialised countries is the *theory of rational action* proposed by John Goldthorpe and Richard Breen [Goldthorpe 1996, Breen and Goldthorpe 1997]. Goldthorpe's approach to the problem of the persistence of class inequality in educational attainment is part of his effort to reorient the class analysis away from both the Marxist and liberal traditions – oriented primarily on macro-social explanations of the dynamics of class structure (class *formation* in the Marxist tradition, class *decomposition* in liberal theories) – towards a theoretically well-grounded explanation of the prevailing empirical evidence of the stability of class differentials in life-chances. Since education plays a key role in determining the life-chances of individuals, it is the marked temporal stability in the odds of attaining higher education that needs a plausible theoretical explanation, which – according to Goldthorpe – can hardly be found unless it takes into account the *micro-social* foundations of *macro-social* regularities. Therefore, in order to understand the persisting inequality, one has to take up the *notion of rationality*, assuming that social actors have goals and alternative means of pursuing them. In choosing among the means, the actors tend to assess costs, risks and benefits, rather than just follow social or cultural norms or values typical for the particular class they belong to [Goldthorpe 1996:485].

As far as class-determined educational careers are concerned, Goldthorpe's rational action theory is in fact a further elaboration of Boudon's theory of the reproduction of educational inequality, based on the assumption that a school career

is a sequence of decisions in which a social actor evaluates and compares the benefits, costs and risks of possible choices among various educational tracks, between staying in school or dropping out etc. [Boudon 1974]. Goldthorpe accepted Boudon's distinction between *primary* effects (ability, performance in school) and *secondary* effects (factors coming into play at various branching points of the educational system) and developed a theoretical and analytical approach based on the assumption that, "it is on secondary rather than primary effects that attention must center if the question of change, or rather absence of change, in class differentials under conditions of educational expansion is to be effectively addressed" [Goldthorpe 1996:491].

This approach is consistent with another explicit assumption that educational expansion leads to the weakening of the role of primary factors (selectivity of successive transitions in terms of ability is reduced). This brings ever higher numbers of children into the competition for more ambitious educational options. Class differentials in taking up these options persist because only little change has occurred in the relativities of cost-benefit evaluations made by individuals (children and parents) in different class situations. In other words, though the relative benefit of achieving higher education from an underprivileged class position is higher (expected upward mobility), the relative costs are also higher (costs of education relative to family income), and so is the risk of failure (be it dropping out, or obstacles in achieving an expected occupational position). All this applies regardless of the person's position in the scale defining primary effects (ability, actual school performance).

The above theories, though very often based on a country-specific situation or data analysis, were striving for general validity. The same cannot be claimed with regard to the various attempts to explain the development of inequality in access to higher education in formerly communist countries. The reason is that these systems were governed by different *types of mechanisms* and very specific *systems of relationships*, created and maintained by the authoritarian regime and its specific policies.

The hypothesis of *socialist transformation* claims that the socialist reforms of educational systems, and the corresponding policies (particularly the implementation of the so-called quota system), brought about an initial reduction in the effects of social origin on educational attainment. However, as soon as the new elite secured privileges for themselves and took control of the educational system, they ensured educational advantages for their own children. For this reason, in the later years of the socialist regimes, the effect of social origin grew to its original, pre-socialist level [see e.g. Matějů 1986, 1993].

Hanley [2001] challenged this hypothesis and attributed the initial reduction in the effect of social origin on educational attainment to the expansion of the educational system, questioning the real effect of the quota system on the admission processes at the secondary and post-secondary level. However, his analysis confirmed that the selection on the basis of political criteria was present during the so-called normalisation period following the Soviet invasion in 1968. The hypothesis

concerning the role of redistribution policies, including the quota system, was also supported by Kreidl [2001], who showed that the effect of the socio-economic status of parents on the success in the transition from lower to upper secondary and technical schools decreased in the years 1948–1953.

The *theory of trajectory maintenance*, which also refers specifically to the former socialist countries, claims that the members of the pre-communist elites (bureaucracy and professionals) were able to pass privileges to their children even under the new regime. They achieved this aim primarily by making use of their social and cultural capital. For this reason, inequalities in the allocation of education did not decline [Hanley and McKeever 1997]. This hypothesis in fact applies the theory of cultural reproduction to the socialist system. Also, Wong [1998] found a strong effect in the various types of capital that individual families have and employ to secure the desired education for their offspring. He showed that it was social capital, such as membership in the Communist Party, that played an important role as a mediator of intergenerational inequalities.

Gerber and Hout [1995] reached a similar conclusion for Russia, where – like in other socialist countries – the strictly controlled growth of opportunities in secondary and post-secondary education led to enormous pressure for entry into both secondary schools and universities. Thus, mainly owing to the excess demand and enormous competition, and despite the strong political control over the selection process, class differentials in the odds of attaining post-secondary education did not change through three post-war cohorts. Similar results came out of the analyses carried out on Czechoslovak and Hungarian data [Boguszak, Matějů and Peschar 1990, Simkus and Andorka 1982].

In the light of what has been said above, two competing hypotheses concerning the development of inequality in access to higher education during the socialist regime can be formulated for the analysis. The first one refers to the 'socialist transformation' hypothesis, which found support in the data from the Czechoslovak stratification survey carried out in 1984 [Matějů 1993]. If this hypothesis is true, we should be able to find a significant reduction of differentials in the odds of making a transition between secondary and tertiary education among individuals of different socio-economic backgrounds. The second hypothesis concerning this stage of development, suggested by Hanley and McKeever [1997], and supported by Wong [1998] in the case of the former Czechoslovakia, and Gerber and Hout [1995] in that of Russia, rejects any change in the effect of socio-economic background caused by the socialist reforms and corresponding policies.

As for the change in educational inequality during the post-communist transformation, all the available evidence leads us to the hypothesis that class differentials in the odds of success in the transition between secondary and tertiary education increased after 1989. Let us summarise the arguments in support of this hypothesis:

a) the tendency to maintain a traditional 'unitary system' (in contrast to the binary system adopted in the United States and most European countries) and the

deepening austerity of higher education institutions (extreme dependence on limited public funds) pose serious obstacles to the further expansion of educational opportunities;

b) growing educational aspirations and a steady growth in the number of secondary education graduates, on the one hand, and constraints on the growth of educational opportunities at the tertiary level, on the other hand, result in an excessive demand and a high number of refusals in the admission process;

c) for the above reasons, the transition between the secondary and the tertiary level of education has become extremely competitive;

d) the post-communist transformation has brought about a significant increase in the economic inequality in the formation of genuine social classes;

e) the process of objective change in the class structure transformed into the formation of subjectively defined groups of 'winners' and 'losers' in the transformation, making the new property class (owners of enterprises, the self-employed) and professionals the typical winners, leaving skilled and unskilled workers among the typical losers [Matějů 1999];

f) the perceived role of education in building strategies for getting ahead has grown significantly; achieving higher education has gradually developed into a principal strategy for life-success;

g) all these processes that took place in the social stratification occurring during the post-communist transformation brought about a growing awareness of the assessments of the costs, risks and benefits of the decisions concerning the educational transition between secondary and tertiary education, particularly among the 'losers' of the transition, represented primarily by large segments of the working class (semi-skilled and unskilled workers).

Taking into consideration all the above arguments, we propose to test the following hypotheses:

H1: The socialist-regime period did not introduce any change in the effect of socio-economic background on the odds of making the transition between secondary and tertiary education. The only significant change was the reduction of inequality between men and women that occurred as a consequence of redistribution policies.

H2: The post-communist transformation brought a significant increase in the effect of social background on the odds of making the transition between secondary and tertiary education. It was primarily due to the increasing effect of the father's social class (representing the socio-*economic* dimension of social stratification), while the effect of the father's education (the cultural dimension of social stratification) remained stable. The effect of gender remained stable.

H3: The increase of class differentials in the odds of making the transition between secondary and tertiary education was caused in particular by the widening gap between the typical losers of the transformation (semi-skilled and unskilled workers) and other classes.

The data and the strategy for the analysis

In order to obtain a sufficiently large number of cases for a cohort analysis allowing a comparison of the pre-socialist, socialist and post-socialist stages of development of the Czech Republic, the data from three surveys – namely, the Transformation of Social Structure Survey 1991 (TSS-91), the Second International Adult Literacy Survey 1998 (SIALS-98), and the International Social Survey Program – survey module on Social Inequality 1999 (ISSP-99) – were merged into one analytical file. All these surveys were carried out on random samples produced by two-stage stratified random sampling procedures.[2] The original effective sample sizes were: TSS-91 1,870 cases (in the Czech part of former Czechoslovakia), SIALS-98 3,132 cases, and ISSP-99 1,834 cases. The analytical data file had 6,740 cases.

The variables created for the analyses were: COH (the year when the respondent reached 18 years of age: 1. before 1948, 1. 1948 – 1964, 3. 1965 – 1974, 4. 1975 – 1989, 5. 1990 – 1999), SEX (1. male, 2. female), FED3 (father's education – the highest achieved level of education: 1. lower secondary or lower, 2. higher secondary, 3. tertiary), RED3 (respondent's education – the highest achieved level of education: 1. lower secondary or lower, 2. higher secondary, 3. tertiary),[3] FCL4 (father's class at the time the respondent was 16 years old: 1. semi-skilled and unskilled workers, farm workers, 2. skilled workers, 3. routine non-manual occupations, 4. professionals – including self-employed).[4] The distributions of the key variables are shown in the Appendix.

Because of the dichotomous character of the dependent variable (success – failure in the transition), logit models were applied to test the hypotheses. This strategy allowed the transformation of categorical variables into a set of special contrast variables[5] representing individual hypotheses. For example, replacing the variable 'cohort' with the 'repeated' contrasts made it possible to focus on differences in the odds of success among cohorts by making explicit assumptions that some of the adjacent cohorts do not differ significantly from each other. Similarly, replacing the variable 'father's education' by orthogonal polynomial contrasts (linear and quadratic) made it possible to test the hypothesis that the effect of the father's educa-

[2] Detailed information about TSS-91 and ISSP-99 surveys and corresponding data files can be found in the Sociological Data Archive (SDA), Institute of Sociology, Academy of Sciences of the Czech Republic (www.archiv.soc.cas.cz). The data from TSS-91 are stored as data file # 0126, the ISSP-99 survey is stored under # 0016. Information about SIALS can be obtained at the website of ETS Princeton: http://www.ets.org/textonly/all/ials.html/.

[3] Since the analysis focused primarily on the transition between secondary and tertiary education, in all surveys respondents older than 19 years reporting completed secondary education and the current status of a 'student' were assigned RED3=3 (tertiary education).

[4] It is the reduced version of a standard EGP class schema. The reduction of the number of categories was necessary to avoid extremely low frequencies in multiple classifications.

[5] See Haberman [1979] for a description of this methodology.

tion on the log-odds of success is linear just by declaring the respective contrast to be linear.

The goodness of fit of each logit model was assessed by a likelihood ratio test and by an evaluation of the adjusted residuals for individual cells of the multiple classification (i.e. by comparing observed frequencies with those derived from the given model). All the presented models showed very high levels of goodness of fit in both criteria.

The results of the analysis

a) Basic trends in opportunity and participation

The trends in two main educational transitions, as portrayed by the survey data, match the statistical data presented in the first part of the chapter. As shown in Table A1 in the Appendix, educational opportunities at the upper secondary and tertiary level grew only very slowly during the past five decades. A marked growth in the probability of success in the transition between upper secondary and tertiary education after 1989 was partly due to the slowdown of the growth in the number of upper secondary school graduates.

The development of differentials between men and women in the odds of making the first and second transition shows patterns typical for formerly socialist countries. As for the first transition (from primary to secondary education), the first period of socialist development brought a massive redistribution of educational op-

Figure 2. Proportion of individuals who succeeded in the first and second transition by gender and cohort

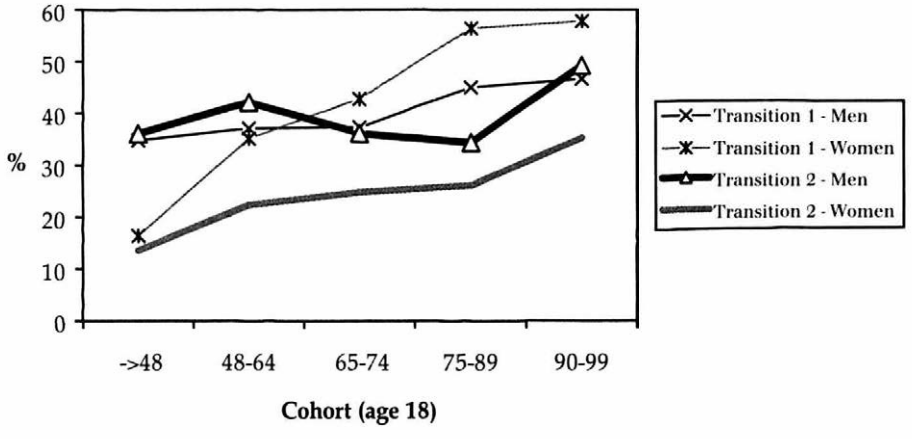


Figure 3. Proportion of individuals who succeeded in the first transition by father's class and cohort

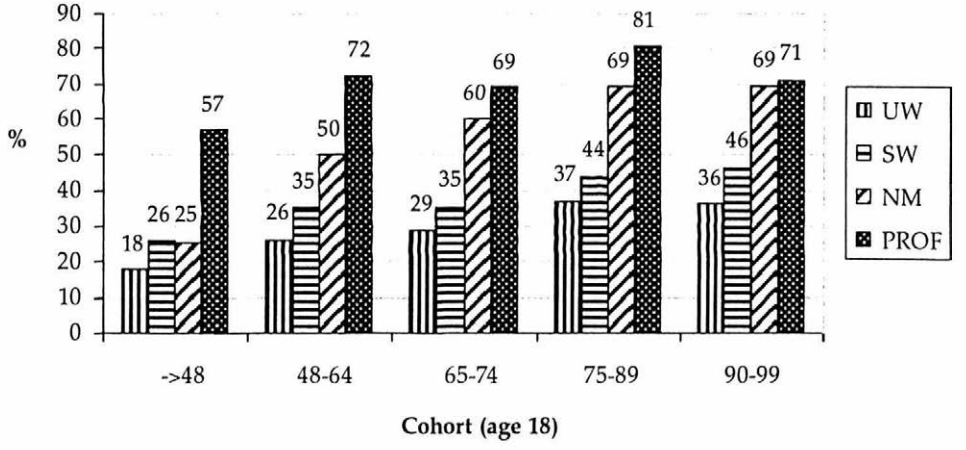
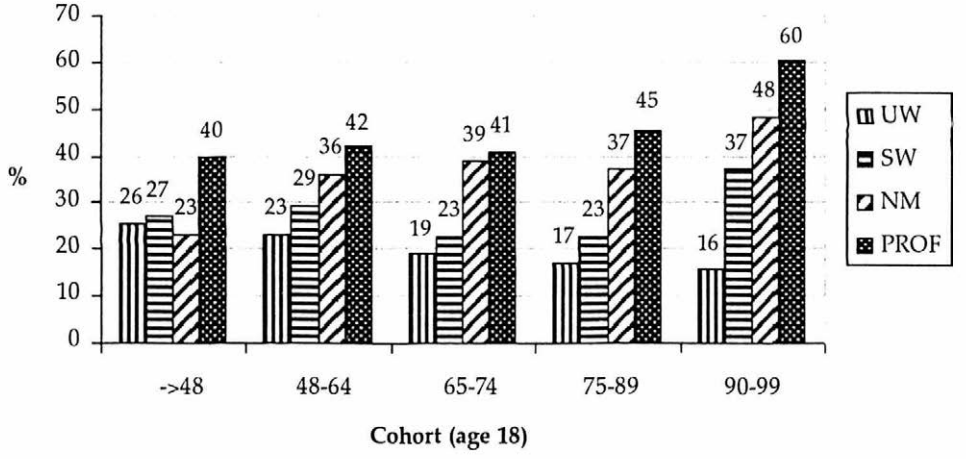


Figure 4. Proportion of individuals who succeeded in the second transition by father's class and cohort



portunities from men to women. Therefore, the odds of women making this transition exceeded those of men. In further development, the odds for men began to grow, but not enough to reach the level of women (Figure 2). As far as the second transition is concerned, while women experienced a steady growth of odds under the socialist regime and the odds for men decreased, the odds between men and women did not flip-over in favour of women.

The limited growth of opportunities during the period under study did not create favourable conditions for a marked reduction of class differentials in the odds of making the transition from secondary to tertiary education, despite the fact that the class differentials of success in the first transition (achieving upper secondary education) diminished, mainly due to the improving relative chances of individuals of working class origin (Figure 3). However, this change did not bring about a similar development in the subsequent transition (from upper secondary to tertiary education). The results displayed in Figure 4 indicate that the trend was just the opposite: the increasing participation of lower social classes in upper secondary education led to an increase in the competitiveness of the subsequent transition, in which lower social classes tended to lose. The odds of making the transition for unskilled and semi-skilled workers (UW) actually dropped, from 26 percent in the pre-socialist period to 16 percent for the last two cohorts (the last socialist and the first post-socialist cohort), while it grew rapidly for non-manual workers and professionals, who profited most from the growth of educational opportunities at the tertiary level. The problem of unskilled and semi-skilled workers appears even more serious when we take into account the size of the class: on average 36 percent of the respondents reported being of this particular class origin (38 percent in the first cohort, 32 percent in the last one).[6] Moreover, in the youngest cohort about 16 percent of fathers belonging to this class reported having upper secondary education.

The social class showing the most significant improvement in the chances of success in the second transition was that of routine non-manuals. The odds of children from this background grew, from 23 percent in the first cohort (actually below the two classes of manual workers) to 48 percent in the last cohort (significantly above the odds of individuals of working class origin). As far as the post-socialist stage of development is concerned, the real winner in this competition were the children of skilled workers (the chances increased from 23 percent to 37 percent, i.e. by factor 1.6), and professionals (the chances increased from 45 percent to 60 percent, i.e. by factor 1.3). Thus, the real losers were those individuals from an unskilled or semi-skilled worker's background. The odds of their success dropped both in real and relative terms (from 17 to 16 percent in real terms; the odds between unskilled and semi-skilled workers on the one hand and professionals on the other dropped from 0.37 to 0.26).

[6] See Appendix for the distribution of variable FCL4.

b) Testing the hypotheses concerning the development of inequality

The hypotheses on equalities in the chances for success in the transition from secondary to tertiary education were tested using three logit models (Model I, Model II and Model III).

Model I tests, first of all, the general hypothesis of the development of the odds of individual cohorts making the transition from secondary to tertiary education, then it tests the hypothesis on the development of inequalities between men and women (H1), and, finally, the hypothesis on the stability of the effect of the father's education (H2). The following equality constraints on individual interactive effects were introduced into the model to test these hypotheses:

a) the development of the odds of making the transition from secondary to tertiary education can be modelled as follows: there was no significant change in the overall chances of the first cohort (i.e. till 1948) and the second cohort (1949–1964) when the socialist model of education was being formed (this does not apply, however, to the differences between men and women); during the period of 1965–1989 (third and fourth cohorts) a general slowdown took place (especially with regard to men), and the overall odds increased significantly for the fifth cohort;

b) as a result of a significant redistribution of educational opportunities in favour of women, the effect of gender changed between the second and third cohort, but remained stable thereafter;

c) the effect of the father's education remained unchanged throughout the monitored period.

The high level of the goodness of fit of this model ($L^2 = 20.8$, $df = 24$, $p = 0.649$) makes it possible to represent the development of inequality in the odds of making the transition between secondary and tertiary education (Figures 5 a, b) and the corresponding odds ratios between individuals of different genders and between groups defined by the father's education calculated from the expected frequencies (Figure 6).

Figures 5a and 5b illustrate that the relatively significant drop in the odds which occurred between the second and third cohort of men (particularly in cases where their fathers had attained tertiary education) was not accompanied by a corresponding growth in the odds of women. The hypothesis that, under the socialist regime, when the overall growth in odds was limited, the odds of women attaining higher levels of education was 'paid for' by a reduction in the educational mobility of men [Boguszak, Matějů and Peschar 1990], is gaining significant support. Thus a marked increase in the odds of making the transition to tertiary education for both genders took place only during the period of the last cohort, admitted to universities only after 1989.

As illustrated in Figure 6, the statistically significant drop in the inequalities between men and women contrasts with the inequalities among individuals with fathers of different levels of education. The odds ratio of children whose fathers had secondary and tertiary education remained constant for men and women throughout the monitored period (2.16). The same applies to the inequalities among individuals whose fathers attained tertiary education and those whose fathers attained

Figure 5. Odds for the second transition by father's education predicted by Model I

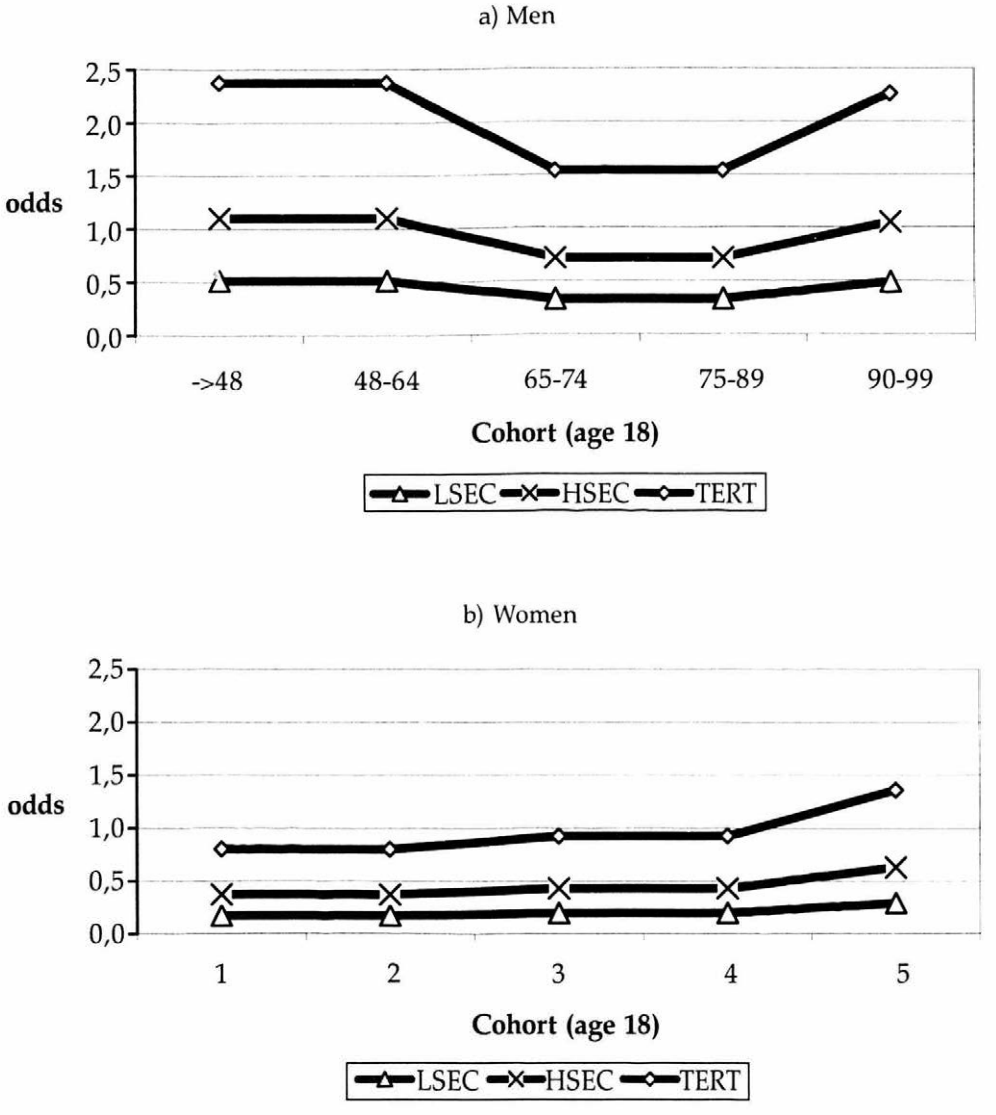
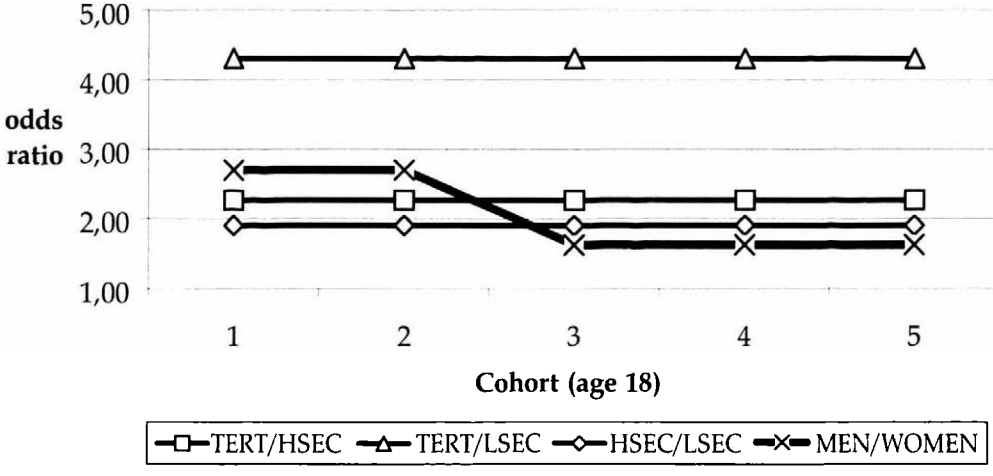


Figure 6. Odds ratios for the second transition between men and women and between groups defined by father's education (FED): based on odds predicted by Model I (odds ratios are identical for men and women)



no more than lower secondary education (an apprenticeship): even in this case the odds ratio was constant during the whole period, but, naturally, much higher (4.65).

Model II was designed to test the hypothesis concerning the development of social origin as represented by the father's social class. This model retains all the constraints imposed on the interaction terms from the previous model, with the exception of the interaction between the father's cohort and social class, because the model assuming this interaction to be constant over time returned statistically unsatisfactory fit. However, when – in compliance with hypothesis H2 – the interaction term allowing a change in the father's social class in the last cohort was introduced, Model II showed a high level of goodness of fit ($L^2 = 26.1$, df = 31, $p = 0.718$).[7]

Figure 7, which shows all the odds ratios, convincingly confirms two aspects:

a) in line with hypothesis H2, the effect of social origin as represented by the father's social class did not change throughout the period of the socialist regime;

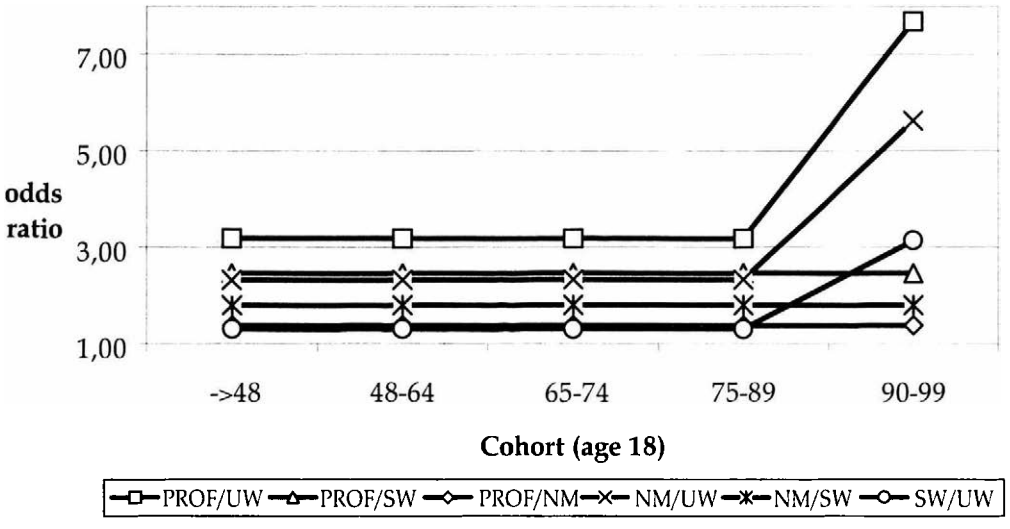
b) also, in line with hypothesis H2, a significant increase in inequalities caused by the socio-economic background as represented by the father's social class occurred only during the post-communist transformation;

c) in line with hypothesis H3, this development was caused primarily by the significant decrease in the relative odds of unskilled and semi-skilled workers' children; the odds ratios between the other social classes remained unchanged throughout the whole period (in most cases relatively high).

The test of a model in which both variables representing social origin (father's education, father's social class) were introduced generated very unstable results due

[7] A formal specification of the logit Model II is included in the Appendix.

Figure 7. Odds ratios for the second transition between groups defined by father's class (FCL4) based on the odds predicted by Model II (odds ratios are identical for men and women)



to very low or zero frequencies in certain cells of multi-dimensional classifications. In order to assess whether socio-*economic* background as represented by the father's social class has an effect independent of the *cultural* dimension of the social origin as represented by the father's education, Model III was designed, in which both the father's education and social class were introduced, but in which both these variables were reduced to two categories. The father's education was re-coded to separate from the rest the relatively large group of individuals who did not attain higher secondary education (FED2: 1. lower secondary or lower, 2. higher secondary and higher). Similarly, in the case of the father's social class, a group of unskilled and semi-skilled workers was separated from the rest (FCL2: 1. unskilled and semi-skilled workers, 2. rest).

Using these variables, we built the model allowing an overall change in the odds of making the transition between secondary and tertiary education only for the last cohort, and not allowing any change in the effect of the father's education, while allowing again a change in the effect of the father's class only for the last cohort.[8] This model returned a very high level of goodness of fit with the original data ($L^2 = 12.7$, $df = 15$, $p = 0.627$). Figure 8, containing key odds ratios, illustrates clearly that:

a) while during the period of the socialist regime the father's education increased the odds of making the relevant transition, its effect did not surpass the dominant effect of the father's class, which remained unchanged;

[8] A formal specification of the logit Model III is included in the Appendix.

Figure 8. Odds for the second transition from Model III

Compared groups defined by two levels of father's education: at most lower secondary (FED2=LOW) or at least upper secondary (FED2=HIGH), and two categories of father's class: unskilled and semi-skilled worker (FCL2=UW) or higher social classes (FCL2=OTHER)

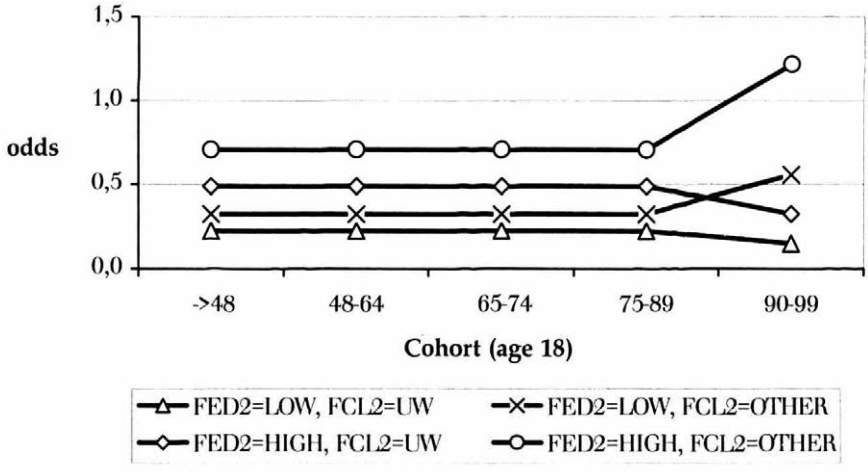
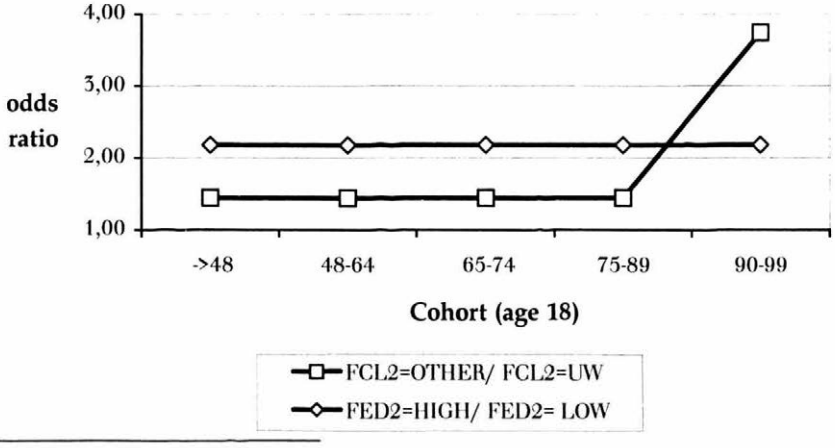


Figure 9. Odds ratios for the second transition from Model III

Compared groups defined by two levels of father's education: at most lower secondary (FED2=LOW) or at least upper secondary (FED2=HIGH), and two categories of father's class: unskilled and semi-skilled worker (FCL2=UW) or higher social classes (FCL2=OTHER)



Notes:

1. Odds ratios for the second transition among individuals from the two different social backgrounds defined by father's class (FCL2=OTHER/FCL2=UW) are identical for the two categories of father's education (FED2=LOW and FED2=HIGH)

2. Odds ratios for the second transition among individuals from the two different social backgrounds defined by father's education (FED2=HIGH/FED2=LOW) are identical for the two categories of father's class (FCL2=UW and FCL2=OTHER)

b) during the period starting in 1989, the effect of the father's education remained constant, while the effect of the father's class increased sharply (as confirmed in Figure 9).

Conclusions

At the outset, we formulated a hypothesis according to which the period of *persisting inequality* during the times of socialism was followed by a period of *increasing inequality* during the post-communist transformation.

The analysis of the extensive set of data acquired by merging data files from surveys carried out after 1989 focused on testing three hypotheses. The first one was derived from the theory known as 'maximally maintained inequality', as presented by Raftery and Hout [1996]. This hypothesis was subsequently extended to include the socialist countries by Hanley and McKeever [1997], who used somewhat different reasoning. The core assumption of this hypothesis is that there were two reasons behind the absence of a decrease in socio-economic inequalities in access to higher education during the socialist era:

a) the very slow growth of opportunities in university education prevented the saturation of the demand for higher-level education among groups of the population with traditionally high educational aspirations. Thus, in concurrence with the arguments presented by Raftery and Hout, the tertiary educational system remained highly selective, especially with respect to potential candidates from lower social strata;

b) despite the initial efforts to demonstrate the advantages of the socialist system (an experiment to increase the participation of the lower social strata through the so-called quota system), the new socialist elite soon managed to ensure advantages in attaining higher education for their own children.

Even though some preliminary analyses indicated that a certain reduction of educational inequalities among the social classes took place at the beginning of the socialist era, with such inequalities returning to their initial levels shortly thereafter [Matějů 1986, 1993], our analysis performed on a larger set of data failed to confirm this thesis. The only significant change that took place during the socialist regime was the decrease in the inequalities between men and women, which resulted in a marked drop in the odds for men, due to the overall reduction of educational opportunities. The differences in the odds of making the transition from secondary to tertiary education among individuals with different socio-economic backgrounds, as represented by the father's education, remained unchanged throughout the period. The same applies to both the cultural dimension of social origin as represented by the father's education, and the socio-economic dimension as represented by the father's social class.

With regard to the short period of post-socialist development, the analysis shows that social inequalities in the odds of making the transition between sec-

ondary and tertiary education increased significantly. Such a development was caused by three reciprocally boosting processes:

a) even though the change of the political system created room for the major democratisation and decentralisation of the tertiary system and for the unprecedented growth of educational opportunities at the tertiary level, the autonomy that was granted too early to the universities made it possible to prevent reforms that would have transformed the tertiary education system from 'unitary' to 'binary', and this resulted in its 'elitist' nature becoming virtually 'frozen';

b) the transition to a model of mass tertiary education was retarded by the lack of will on the part of university officials to adopt multi-source financing, which – together with the slow growth of financing for tertiary education from public sources (the Czech Republic remained close to the bottom of the OECD scale) – brought about a severe financial crisis in the tertiary educational system and an actual slowdown in the growth of opportunities (despite the marked slowdown of demographic development in the relevant age group, the share of admitted applicants stabilised at 50 percent in a long-term perspective); as a result of these processes, the competition for making the transition into the tertiary educational system is in the long run enormous;

c) the marked growth of socio-economic inequalities after the first stage of the post-communist transformation brought about the formation of genuine social classes, of which the class of manual workers showed all the signs of being the losers in the post-communist transformation: thus it was possible to expect, in line with the theory of rational action presented by Goldthorpe and Breen [Goldthorpe 1996, Goldthorpe and Breen 1997], that children from the families of manual workers would be the losers in this stiff competition, and that their relative odds of making the transition to tertiary education would be diminishing in comparision to the others.

The analysis confirmed this hypothesis. After 1989, a marked increase of inequalities in access to higher education took place, mainly due to the substantial decrease of the odds of children from manual workers' families. The results of the analysis confirm also that this change originates in the socio-*economic* dimension of the inequalities, as presented by Goldthorpe, rather than in the socio-*cultural* dimension, as stressed by proponents of the theory of cultural capital, as the effect of the father's education remained constant. All this indicates that there occurred an increase of inequalities in access to higher education in the Czech Republic after 1989, and that this increase was caused by factors that can be called *structural*: be it the rigid structure of the tertiary educational system or the gradually shaping class structure of the society.

PETR MATĚJŮ, *chair of the Department of Social Stratification at the Institute of Sociology of Academy of Sciences of the Czech Republic, and Vice-President for Research at the Anglo-American Institute for Liberal Studies. His major research interests are social strati-*

fication and mobility, inequality and equity in education, the role of human and social capital in social and economic reproduction and competitiveness.

BLANKA ŘEHÁKOVÁ *is affiliated with the Department of Value Orientations at the Institute of Sociology of the Academy of Sciences of the Czech Republic. Her main fields of interest are statistical modeling, the analysis of social and educational inequalities, voting behaviour, social networks, and environmental behaviour.*

NATALIE SIMONOVÁ *is a research fellow in the Department of Social Stratification of the Institute of Sociology. Her research focuses on educational inequality and mobility in the former Czechoslovakia and in the post-revolution Czech Republic. Currently she is a postgraduate student at the Faculty of Philosophy of Charles University in Prague.*

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Appendix

Table A1. Distributions of variables used in the analysis

Variable		COH					
		→1948	1948-64	1965-74	1975-89	1990-99	Total
RED3	LSEC	76.3	63.8	59.6	48.9	54.5	59.3%
	HSEC	17.4	24.9	28.5	36.8	38.5	29.7%
	TERT	6.3	11.3	11.9	14.3	7.0	11.0%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SUCC	0 – no	73.5	68.3	70.2	70.5	58.6	68.3%
	1 – yes	26.5	31.7	29.8	29.5	41.4	31.7%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
FED3	LSEC	92.0	83.1	73.1	64.7	53.4	72.8%
	HSEC	4.9	13.6	19.5	24.6	29.8	19.1%
	TERT	3.1	3.3	7.3	10.7	16.7	8.1%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
FCL4	UW	38.2	40.8	38.4	32.8	31.7	36.6%
	SW	24.5	29.8	31.1	33.1	29.4	30.3%
	NM	32.2	22.2	16.5	19.0	21.4	20.9%
	PROF	5.1	7.2	14.1	15.1	17.5	12.2%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SEX	MEN	38.5	45.6	47.0	46.5	51.0	46.1%
	WOMEN	61.5	54.4	53.0	53.5	49.0	53.9%
	Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Specification of logit models in SPSS

Model I

```
LOGLINEAR SUCC(0,1) BY COH(1,5) FED3(1,3) SEX(1,2)
    /CONTRAST (COH) = REPEATED
    /CONTRAST (FED3) = POLYNOMIAL
    /DESIGN = SUCC    SUCC BY COH(2)    SUCC BY COH(4)
    SUCC BY FED3(1)    SUCC BY SEX
SUCC BY COH(2) BY SEX
```

Model II

```
LOGLINEAR SUCC(0,1) BY COH(1,5) FCL4(1,4) SEX(1,2)
    /CONTRAST (COH) = REPEATED
    /CONTRAST (FCL4) = REPEATED
    /DESIGN = SUCC    SUCC BY COH(2)    SUCC BY COH(4)
    SUCC BY FCL4    SUCC BY SEX
SUCC BY COH(4) BY FCL4(1)
SUCC BY COH(2) BY SEX
```

Model III

```
LOGLINEAR SUCC(0,1) BY COH(1,5) FED2(1,4) FCL2(1,2)
    /CONTRAST (COH) = REPEATED
    /DESIGN = SUCC     SUCC BY COH(4)
    SUCC BY FED2     SUCC BY FCL2
    SUCC BY COH(4) BY FCL2
```

Self-Selection and Selection
Transition from Secondary to Tertiary Education in Hungary*

PÉTER RÓBERT**
Institute of Sociology, ELTE University
and TÁRKI Social Research Centre, Budapest

Abstract: By law, students in Hungary, if they wish to study at the tertiary level, must submit a formal application (every year in February) and then must take an entrance exam (in June/July). When they pass this exam they are eligible to begin their studies (in September). This procedure divides the transition to tertiary education into two stages: self-selection (applying) and selection (passing the exam). Some of the recent literature in educational mobility claims that students make calculations before they deciding on whether to continue their studies, and this decision is affected by their social origin. This paper investigates the two stages of educational selection, with the assumption that the act of applying is more strongly determined by social origin than success, among those students who have applied, in passing the exam is. In the study, about 60 000 secondary school students were interviewed in a self-administered questionnaire in the spring of 1998, inquiring into whether they had submitted an application or not. The applicants were then identified in the autumn of 1998 in terms of whether they met the requirements of the exam and accepted into the tertiary level of education or not. The data contain basic information on the parents' occupation and education and the school performance of the students. These variables are used for predicting two dependent variables: application, and a successful exam among those who applied. The models were fitted by taking gender differences into consideration and were controlled for two types of secondary school: gymnasium and technical secondary school. The results show that self-selection is more strongly affected by social origin; the effect of the parents' characteristics drops if success in the exam is predicted among self-selected students.
Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3: 325–349

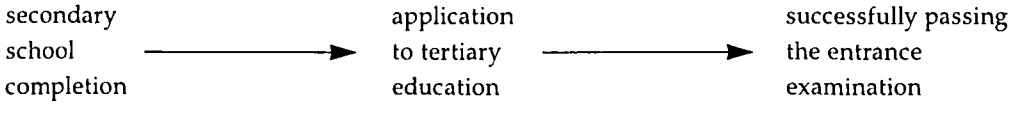
* A previous version of the paper has been presented at the 4th ESA Conference, 'Will Europe Work?' Stream I.2 'Inequalities: Changing Patterns of Stratification', Session 3 'Education', Amsterdam, August 18-21, 1999. The reworked version for publication was prepared during the time when the author was a Jean Monnet Fellow at the European University Institute, Florence.
** Direct all correspondence to: Dr. Péter Róbert, TÁRKI – Social Research Informatics Centre, Victor Hugo 18-22, H-1132 Budapest, Hungary, e-mail: robert@tarki.hu

The research subject

School progression and educational opportunities lie at the heart of sociological research on the reproduction of social inequalities. Educational expansion is a typical feature of modern societies; younger generations tend to attain a higher level of education than their parents. However, this general trend does not automatically lead to a decline in educational inequalities. The rising level of educational attainment raises the question how social origin affects the likelihood of school progression and the continuation of studies at the secondary or tertiary level.

In modern society, a growing proportion of jobs require a post-secondary school diploma. Consequently, the investigation into access to tertiary education forms a core issue in status attainment research. Research on school transition from secondary to tertiary education is also developing into a subject of relevance for policy decisions. This paper approaches the subject as a two-step selection procedure experienced by secondary school students. By law, students in Hungary, if they wish to study at the tertiary level, must submit a formal application (every year in February) and must then take an entrance exam (in June/July). Once they pass this exam they are eligible to begin their studies at the tertiary level (in September). This procedure divides the transition to tertiary education into two stages: self-selection (applying) and selection (passing the exam). Figure 1 presents a diagram that illustrates this process.

Figure 1. The two-step procedure of transition from secondary to tertiary education



The paper investigates the factors that influence both self-selection among students at gymnasiums and secondary technical schools, and success at the entrance examination for the (self-selected) applicants for tertiary education. We will first outline the theoretical background of the study and then present the data and variables employed. We will then turn to the empirical evidence based on the statistical analysis. The paper concludes with a discussion of the results.

Theories, previous research, and hypotheses

The title of the book *Persistent Inequalities*, edited by Shavit and Blossfeld [1993], is highly expressive. Indeed, various sociological, economic and psychological determinants seem to have a continuing impact on educational opportunities and choices. The classic Blau and Duncan [1967] model sought to investigate the influence that the father's occupation and education have on the highest level of education attained by

an individual. The analysis focused on the men's status attainment and included the father's occupation and education as measures of social origin. Later, Mare [1981], assessing the decisions for continuing at school, added the mother's education and parental income to the set of predictors. It is widely accepted that the father's characteristics represent the economic features of the family background, while the mother's characteristics represent the cultural features. This goes back to a traditional division of labour within families based on gender-specific differences between husband and wife [Parsons 1942]. In contemporary societies, however, women's participation in the labour force has increased, and the mother's occupational status is also expected to affect children's educational attainment [Dronkers 1995].

These days, the level of one's education is considered one of the main predictors of occupational success. According to the industrialisation hypothesis [Treiman 1970], the meritocratic principle is an essential driving force in the process of status attainment. The hypothesis of Increased Merit Selection (IMS) [Jonsson 1992] claims that merit becomes the key determinant of an individual's access to education and social position. However, as Goldthorpe [1996a: 263] shows, there is quite some discrepancy in the findings concerning the expected changes over time in the relations among origin, education and destination. Though several sociological investigations have confirmed the assumption of a trend towards the increasing effect of education and the decreasing effect of social origin on social status, empirical analyses indicate much less agreement on the impact social origin has on education. The industrialisation hypothesis also predicts a trend towards the declining effect of social origin on education. But several researchers report the effect not as decreasing but rather as stable or even increasing over time. At first glance, this is much more in line with the theory of cultural and educational reproduction, one of the concepts we intend to apply in this paper. However, the persistence or even the return of the effect of social origin on education does not necessary result in the rejection of the industrialisation hypothesis. Luijkx et al. [1998; 2002] performed refined analyses on the status attainment process in Hungary using large-scale and long-term data and found definite non-linear effects and a return of the trend towards the declining impact of social origin on education. This result was interpreted as a confirmation of the modernisation theory, on the grounds of the declining economic performance in Hungary at the end of the 1980s and the beginning of the 1990s.

Shavit and Blossfeld [1993] found that secondary education had in most societies become more general and widespread while the transition to tertiary education was still selective and dependent on social characteristics. However, predictions have not been uniform in this respect either. Boudon's assumption [1974] is that the impact of social origin becomes larger as one moves up the hierarchy of the educational system. Conversely, Mare [1981] has argued that students constitute a more selective group at higher levels of the educational structure, and consequently social origin matters less at the higher than the lower level of the system. If this is true, educational expansion could even increase the influence of family background on school progressions.

Ascription affects educational attainment with respect to at least two other aspects – region and gender. Simkus and Andorka [1982: 749] reached the conclusion that "place of residence had significant effects on educational progression even net of the effects of father's occupation". Regional differences in Hungary are partly expressed in the Budapest versus the-rest-of-the-country division, which provides unequal chances for both educational attainment and a person's career in the labour market. In addition, smaller settlements offer only few possibilities for continuation in education, e.g. there is only one secondary school in the town and daily commuting is still not well developed and organised. Thus, the continuation of studies is definitely a more difficult decision for students (families) in smaller settlements.

Gender inequalities are an important viewpoint for consideration when investigating educational chances and choices. Studies on educational attainment or progression agree that gender differences in the education level of men and women have strongly declined in recent decades [cf. Blossfeld and Shavit 1993: 13. Table 1.1]. This phenomenon is connected to the increasing participation of women in the labour force in post-industrial (service) societies [Esping-Andersen 1993]. However, this trend has not led automatically to the elimination of gender differences in access to higher education, just as educational expansion did not eliminate educational inequalities. In a review of this topic, Jacobs [1996: 177] reached the conclusion that "gender inequality in the United States is now less a matter of inequality in access, and more matter of gender differentiation in educational experiences and outcome". He also called for more attention to be devoted to gender differences in the educational decision-making process. In Hungary, results from related research have indicated the presence of a gender-specific pattern of school continuation: after completing the primary level of education, girls are more likely to go to gymnasiums and boys are more likely to go to secondary technical schools [Róbert 1991]. Heyns and Bialecki [1993] reported a similar tendency in educational choices in Poland. On the average, there is a surplus of women in secondary schools who are eligible for tertiary education upon completion of their secondary education. However, previous research has revealed that nonetheless men have better relative chances for entry into tertiary education than women [Róbert 1991].

Tracking in secondary schooling has an impact on the chances of entry into tertiary education, too. Gymnasiums featuring a curriculum that is stronger academically provide students with a higher level of knowledge for passing the entrance examination in comparison with secondary technical schools, where there is more emphasis on practical skills and information in the curriculum.

Recent literature on educational mobility distinguishes between two theoretical explanations for the reproduction of educational inequalities: the cultural reproduction thesis and the rational action theory. The former argues that parental cultural differences have a strong impact on success at school; the offspring of high status families have the very skills and abilities – in fact transmitted to them through the family – which are rewarded by schools. Consequently, these students will be less likely to leave the educational system at lower stages and will also be more suc-

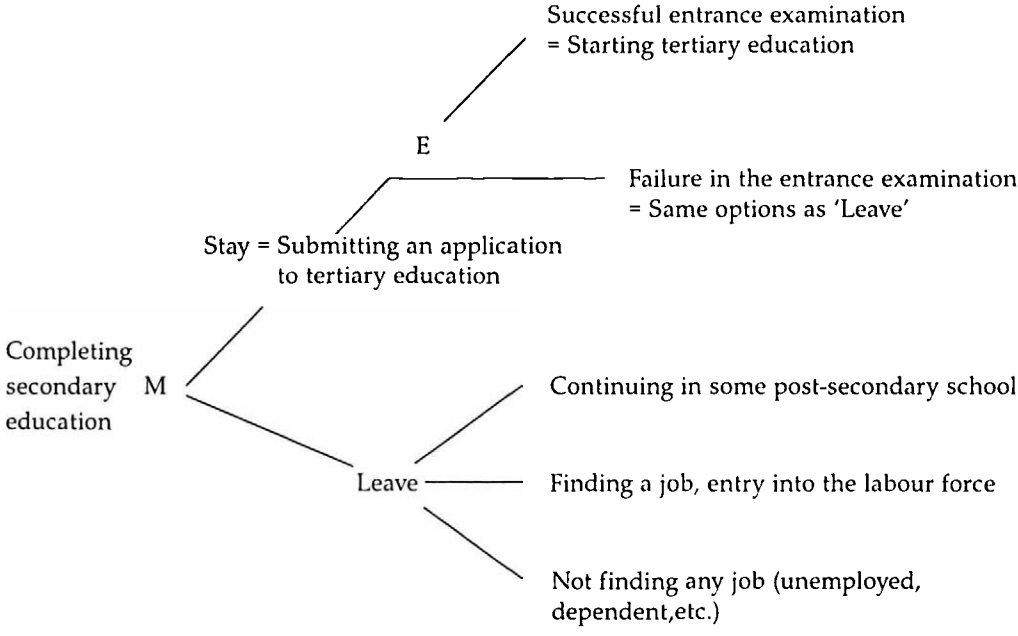
cessful in the school transition to higher levels of education [Bourdieu and Passeron 1977]. While functionalists claim that in modern societies selection in the labour market is based on educational credentials, the cultural reproduction theory follows the argumentation of conflict theories. Educational credentials, based on the cultural capital of the parental family, are actually the means employed by privileged and dominating social groups to maintain their advantages and to legitimate social differentiation and unequal social opportunities [Collins 1971].

Previous studies on educational inequalities using a larger set of predictor variables found that the effect of material circumstances tends to decline over time in Western countries [De Graaf 1986; 1988] and that cultural resources influence educational attainment more strongly than material ones in socialist societies [Mateju 1990; Ganzeboom, Graaf and Róbert 1990; Róbert 1992]. In the analysis of more recent data from Hungary, however, it is possible to argue that, owing to the general increase in social inequalities, the role of the family's financial situation has now started to play a stronger role in educational choices than it did before the collapse of communism [Bukodi 1999].

The other theoretical explanation of educational inequalities – the rational action theory – is frequently labelled as an economic theory in contrast to the former, culturally based theory. The concept was introduced by Boudon [1974] in his distinction between the primary and the secondary effects that influence educational attainment and produce inequality in educational opportunities (IEO). Primary effects include social origin, and the influence of family background and the cultural climate on abilities and school achievement. This is more or less in line with the approach of the cultural reproduction theory. Secondary effects refer to the decisions made concerning the continuation of education on a higher level. The educational system is a hierarchical one, and at certain points during their educational career students must make decisions on whether to leave the system or to stay and continue their studies. Furthermore, if the educational system provides the students with options and includes tracking at the same level, the decision contains another choice as to where or in what kind of institution pupils want to continue their studies. According to Boudon, these decisions are based on an estimation of costs and benefits that parents and children engage in before making a choice, and these secondary effects are stronger determinants of educational attainment than the primary effects are.

In order to explain IEO in the Irish case, Raftery and Hout suggested a rational choice explanation of a kind stating, "students and their families base decisions about continuing their education on ... evaluations of the associated costs and benefits". "When the benefits exceed the costs, the individual chooses to continue, if possible" [Raftery and Hout 1993: 57]. They assumed that the higher the father's education, the larger the perceived benefits of education at a higher level, and, consequently, that children from better educated families will be less likely to leave the educational system. Similarly, the better the financial situation of the family the smaller the perceived costs of school progression, because any kind of cost is usually higher for families with lower income.

Figure 2. Decision tree for students completing secondary education



Source: *Adapted on the basis of the figure from Breen and Goldthorpe [1997: 280].*

Boudon's concept of rationality in educational decisions was used by Goldthorpe [1996b] and Breen and Goldthorpe [1997] for explaining persisting differences in educational attainment on a more abstract, generalised and formalised level. In line with the human capital investment theory [Becker 1975], Goldthorpe considers education as an investment that serves several possible goals. By investing in education, one can obtain necessary qualifications, which are sufficient for the purpose of (1) maintaining an advantageous class position, or (2) providing good access to high status jobs and realising inter-generational upward mobility, or (3) avoiding downward mobility within society. However, families in a privileged or less privileged class position differ with respect to their evaluation about (1) which level of education best serves any of the above goals, and (2) what costs they are ready or able to pay for in return for the benefits that any of the above goals can offer them. Breen and Goldthorpe [1997: 280. Figure 1] developed a decision tree for modelling educational choices. The options stemming from the application of this model to our research problem are shown in Figure 2.

This study does not intend to investigate all the possible transitions displayed on this figure but with rather focus on two decisions. The first decision (M in the fig-

ure) is made by the student ('maturandus') and represents the self-selection part of the entire procedure. Those who decide not to try to enter tertiary education can either go to some other post-secondary school or can start to work, if they are able to find a job with their secondary-level qualifications. If they cannot find a job they will be unemployed or will stay at home as a dependent. But this path, following the first decision, is unfortunately not covered by the present data. The second decision (E in the figure) is made by the Entrance Examination Committee of the given university or college where the applicant has sat his/her entrance examination. This is the selection part of the process, when the achievement of the applicant is measured[1] and it is determined whether he/she can start to study at the tertiary level. Our data covers the outcome of this second step, too.

The main hypothesis of the analysis is that self-selection is a stronger determinant than selection. Following the logic of rational action theory, secondary school students (and their families) calculate the costs and benefits of school progression to the tertiary level and decide whether to submit an application to any university or college (stay) or not (leave). Applicants to tertiary education who come to the entrance examination are a selected group of students. This hypothesis claims that – if using the same set of predictors for modelling the transition from secondary to tertiary education – the social determination of the decision based on individual calculation will be stronger than the determination of the selection of applicants in the entrance examination procedure.

The independent variables involved in the model contain three groups of measures:

- ascription (different measures of social origin, place of residence, gender);
- achievement (school performance);
- institution (type of secondary school).

With respect to the variables referring to the ascription criteria, other hypotheses of the analysis claim that the father's and the mother's characteristics are significant predictors and that the parents' education has a stronger impact than the parents' occupation. This is a persistent phenomenon, observed in most of the previous studies on the intergenerational transmission of educational inequalities. Family income matters, but plays a smaller role than the parents' occupation or education. The assumption is that this is because, on the one hand, income is a consequence of educational and occupational credentials, and, on the other hand, we are analysing only a selected group of students who have already undergone a se-

[1] For a successful entrance examination, applicants must obtain the necessary scores. Entrance examinations vary at different institutions. On the one hand, results from the secondary school diploma contribute to the scores the student can collect. On the other hand, there is a written and/or an oral entrance examination where applicants can gain additional scores. The main variation in the procedure stems from the fact that certain institutions (mostly colleges) skip the written part of the examination. They invite the students to an oral examination on the basis of their results from the final examination at the secondary school ('maturita').

lection procedure in the transition from primary to secondary education. Gender differences operate in favour of men because men represent a more select group among the students at secondary schools who are eligible to continue their studies at the tertiary level. Another gender-specific assumption is that the mother's characteristics have a stronger influence on school progression, especially for female students. Regional differences matter but play a smaller role in determining the transition from secondary to tertiary education in comparison to other social and economic characteristics of the family. The place of residence may have a stronger impact on the educational transition of women because they may be more dependent on the circumstances of the local educational market if their parents are more reluctant to send them to universities or colleges far from their place of residence.

Hypotheses about the role of achievement point to a strong positive relationship between school performance and the transition from the secondary to the tertiary level of education. This effect is expected to be bigger for students from families of lower status or from smaller and less urbanised settlements because they tend to overestimate the costs of school continuation and require stronger proof of the cognitive abilities of the student in order to reach a positive decision on the application. The same holds true for male students, in comparison with female students, and for pupils from secondary technical schools, in comparison with gymnasiums, as for them too the calculation of the costs and benefits is influenced more by stronger evidence of their learning abilities.

The institutional hypothesis says that students from a gymnasium have a better chance of entering tertiary education compared to students from secondary technical schools owing to the academically stronger curriculum at the former institution. Men and students from lower-status families have a better chance of entering tertiary education if they come from a gymnasium. Both of these groups represent more select groups of students, as there are fewer men and fewer students from low-status families at gymnasiums.

The main effects of the independent variables can test a part of these hypotheses. But other parts of the hypotheses can be confirmed or rejected only by introducing the appropriate interaction terms between the independent variables. This practice will be applied in the analysis.

Data, measures, and methods

The data applied in this analysis is from a self-administered survey among fourth-year secondary school students. The survey was carried out in the spring of 1998.[2] The initial plan was to interview all Hungarian students who were to obtain their secondary school diploma in 1998 and were eligible to continue their studies at the

[2] The questionnaire for the survey was prepared by a group of sociologists at the Institute of Sociology, Eötvös Lóránd University in Budapest and the fieldwork was also carried out by Institute. The research was financed by the Soros Foundation in Budapest.

tertiary level. In Hungary, this means students who had completed gymnasium (ISCED3A); students who obtained their secondary school diploma from a secondary technical school (ISCED3B). Those students who decided to attend vocational training (apprenticeship) (ISCED3C) after their primary education were not considered because this option does not make anyone eligible for tertiary education. Official statistics show that the gender distribution differs markedly in these three types of secondary schools. In 1999/2000 the share of women at gymnasiums was 60%. At secondary technical schools the male-female ratio was roughly equal, while at vocational schools men made up a nearly two-thirds (64%) majority of the student body [Halász and Lannert 2000: 135]. Consequently, as far as the gender composition of the eligible 'input population' for tertiary education is concerned, the process is more selective for men than women.

The questionnaire focused on the fact of whether these students had submitted an application to tertiary education or not. Students were also asked about their family background as well as school achievement. Some months later, in the autumn, the register of the Ministry of Education was used to identify the successful applicants who had managed to pass the entrance examination to tertiary education. As far as the number (N) of cases is concerned, about 60 000 students filled in the questionnaire, about 30 000 students submitted an application to tertiary education, and about 15 000 students were identified as freshmen in a school at the tertiary level in the autumn of 1998.[3]

There are two dependent variables, coded as 1 and 0: the first variable refers to the act of applying to tertiary education or not, and the second refers to success or failure in the entrance examination.

The independent variables consist of measures for the parental family:

- occupation of the father and mother (manager, professional, clerical worker, self-employed with employees, self-employed without employees, skilled worker, unskilled worker);
- education of the father and mother (university, college, gymnasium, technical secondary, apprenticeship + secondary, apprenticeship, primary);
- a self-ranking five-point scale for per capita family income based on the student's statement, which did not contain a precise sum of money but a placement on the scale.

Student achievement is measured by performance in mathematics, literature, history and a foreign language. In Hungary, student performance is measured on a

[3] There was no formal sample in this survey; interviewers attempted to visit all secondary schools in Hungary. However, a few of them did not allow their students to fill in the questionnaire, and some students also did not want to answer the questionnaire, as it was, of course, not compulsory to do. Some other students were not present when the interviewers visited the school. These missing cases are considered random; the data set contains roughly 90% of the 'sampling frame'. I am indebted to Mihály Csákó, leader of the project, who made this data available to me.

five-point scale, in which '5' is the best and '1' is the worst mark. The arithmetic mean has been calculated from these four scales as an aggregate index for educational performance.

Further controls included in the models in line with the theoretical considerations and hypotheses are place of residence (Budapest, county seat, town, village), gender (male=1) and type of secondary education (gymnasium=1).

Since the dependent variables measure an event (submitting an application to tertiary education, passing the entrance examination), logistic regression was applied as the statistical method of analysis. Most of the independent variables are coded as indicator variables or dummy variables, except for the level of school performance. In order to test the related hypotheses, interactions between gender, type of secondary school, educational performance and the other predictor variables were added to the model with the main effects. The models were estimated in two steps: the first contains the coefficients for the main effects and the second includes the coefficients for the significant interaction terms.[4]

Findings

The socio-demographic composition of groups of students by gender and type of institution

In this section, the socio-demographic composition of the various sub-groups of the investigated population is described. Table 1 presents the distribution of fourth-year secondary school students in Hungary according to the independent variables involved in the analysis.

Social characteristics differ considerably according to the type of school. The parental social status of students is higher at gymnasiums. The proportion of manager or professional fathers is roughly twice as much at gymnasiums as at secondary technical schools. At secondary technical schools one-half of the fathers are skilled workers, while the corresponding figure at gymnasiums is one-third. At the gymnasiums one-half of the mothers are professionals, while the corresponding proportion at secondary technical schools is one-third. At the gymnasiums about 40% of the fathers and mothers have attained tertiary education, while at secondary technical schools the corresponding percentage is about 15%. The proportion of those

[4] The level of significance and the application of the test of significance represent another problematic point of the analysis in a strict statistical sense. Formally, the values on the significance of the estimates provided by the logistic regression method could be considered only if we analysed a sample drawn from the population. The former footnote explained the situation in this respect. But under any circumstances, we could perhaps argue that the population that was interviewed in 1998 could be regarded as a 'sample' representative of Hungarian fourth-year secondary school students from the second half of the 1990s.

Table 1. Characteristics of the sub-groups of secondary school students, Hungary, 1998 Part 1

Category	Students at a gymnasium	Students at a technical secondary	Boys at a gymnasium	Girls at a gymnasium	Boys at a technical secondary	Girls at a technical secondary
Gender						
- Male	37.5	49.0	-	-	-	-
- Female	62.5	51.0	-	-	-	-
Father's occupation						
- Manager	9.4	5.1	12.1	7.7	6.9	3.5
- Professional	28.2	13.3	30.9	26.5	14.6	12.0
- Clerical	2.4	2.0	2.5	2.4	2.1	1.9
- Self-empl. with empl.	5.4	4.0	5.5	5.3	4.6	4.3
- Self-empl. without empl.	18.0	15.3	18.4	17.8	15.8	14.9
- Skilled worker	32.2	52.5	27.0	35.4	50.3	54.8
- Unskilled worker	4.3	7.2	3.5	4.8	5.8	8.6
Mother's occupation						
- Manager	7.8	4.7	9.3	6.9	5.8	3.8
- Professional	49.1	33.5	52.2	47.2	36.9	30.3
- Clerical	7.9	8.3	7.6	8.0	8.3	8.2
- Self-empl. with empl.	3.4	2.4	3.4	3.4	2.4	2.4
- Self-empl. without empl.	9.2	7.7	9.4	9.0	8.0	7.4
- Skilled worker	16.3	29.5	13.5	18.0	27.7	31.3
- Unskilled worker	6.4	13.8	4.6	7.5	10.9	16.6
Father's education						
- University	22.0	5.7	27.4	18.8	7.0	4.4
- College	18.6	9.9	21.3	17.0	11.7	8.1
- Gymnasium	7.8	5.5	7.5	8.0	5.6	5.4
- Technical secondary	16.9	17.5	16.2	17.4	19.0	16.0
- Apprenticeship + secondary	7.4	10.3	6.5	7.9	10.7	10.0
- Apprenticeship	23.8	44.7	18.4	27.2	40.9	48.3
- Primary level	3.4	6.5	2.8	3.7	5.2	7.9
Mother's education						
- University	14.5	3.1	18.5	12.1	4.2	2.0
- College	26.1	11.9	29.1	24.3	14.1	9.9
- Gymnasium	20.0	18.7	19.5	20.4	20.6	16.9
- Technical secondary	15.4	16.8	14.2	16.0	16.1	17.5
- Apprenticeship + secondary	5.2	9.5	5.1	5.3	10.4	8.6
- Apprenticeship	11.9	25.8	8.6	13.8	23.8	27.6
- Primary level	6.9	14.2	5.0	8.0	10.8	17.4
Family income per capita						
- upper	10.9	5.8	15.4	8.1	7.5	4.2
- upper-medium	21.0	15.2	24.3	19.0	17.7	12.7
- medium	32.2	32.1	31.1	33.0	33.3	31.0
- lower-medium	30.3	39.2	34.6	33.7	35.1	43.3
- lower	5.6	7.7	4.5	6.3	6.4	8.9
Place of residence						
- Budapest	20.5	14.8	23.5	18.6	15.5	14.2
- County seat	25.0	23.3	25.1	24.8	23.7	22.8
- Town	28.5	26.6	28.1	28.8	27.2	26.0
- Village	26.0	35.3	23.3	27.8	33.5	37.0
Mean of educ. performance	3.9	3.4	3.8	4.0	3.2	3.5
N of cases	24802	36006	9295	15507	17660	18346

belonging to the upper group of family per capita income is also twice as much at gymnasiums as at secondary technical schools. These figures show a strong selection effect from the previous transition from primary to secondary education. In fact, previous research on educational inequalities in Hungary reveals that, for continuing in study at the secondary level (but not in the case of vocational training), it matters very much if someone goes to a gymnasium or to a secondary technical school [Simkus and Andorka 1982; Róbert 1991; Szelényi and Aschaffenburg 1993; Bukodi 1999]. This choice between the academic and non-academic track (ISCED3A or 3B) does not affect eligibility to tertiary education, but has an influence on the odds of achieving a successful entrance examination. It also means that we must consider this fact when interpreting our institutional effects.

The types of secondary schools differ with respect to regional distribution; students in gymnasiums are over-represented in Budapest, as this institution is a much more available option at the secondary level of education in the Hungarian capital.

There are considerable differences in the social composition of men and women at both types of secondary schools; men tend to come from families with a higher status. The men's parents have a higher occupational position and educational level than the women's parents. The financial circumstances of the men are better than that of the women, too, both at gymnasiums and at secondary technical schools.

In terms of achievement, the bottom line of Table 1 indicates that the students at gymnasiums perform better than the students at secondary technical schools. Furthermore, women perform somewhat better than men at both types of secondary schools.

The socio-demographic composition of sub-groups of students: leavers, and unsuccessful and successful applicants

Table 2 compares the sub-groups of the fourth-year secondary school students based on the dependent variable of the analysis; this means distinguishing among the groups of those who did not apply for school progression, those who applied, those who did not successfully pass the entrance examination, and those who passed the examination successfully and are able to begin their studies at the tertiary level.

Students in the group of applicants tend to have a much better social background than those students who have decided to leave the educational system. The proportion of fathers in managerial or professional positions is twice as high for the former group as for the latter. Among more than one-half of the dropouts the father is employed in the position of a skilled-worker, while among the group of applicants the corresponding proportion is one-third. The proportion of mothers in managerial positions is also twice as high among the applicants as among the leavers.

The difference between the two groups is even sharper from the viewpoint of parental education: among the applicants, four times as many fathers and six times as many mothers have a university degree. With regard to a college degree, the dif-

Table 2. Characteristics of the sub-groups of secondary school students, Hungary, 1998 Part 2

Category	All students	Non-applicants to the tertiary level	Applicants to the tertiary level	Un-successful applicants	Successful applicants
Gender					
- Male	44.3	46.6	42.3	42.3	42.2
- Female	55.7	53.4	57.7	57.7	57.8
Father's occupation					
- Manager	6.9	4.1	9.2	8.2	10.3
- Professional	19.5	11.7	25.9	23.9	28.1
- Clerical	2.2	2.0	2.3	2.2	2.5
- Self-employed with employees	4.9	4.0	5.6	5.9	5.2
- Self-employed without empl.	16.5	15.3	17.4	18.6	15.9
- Skilled worker	44.0	54.7	35.6	36.9	34.1
- Unskilled worker	6.0	8.3	4.1	4.3	3.9
Mother's occupation					
- Manager	6.0	3.8	7.8	7.4	8.2
- Professional	40.0	30.8	47.5	44.5	50.9
- Clerical	8.1	8.0	8.2	8.4	7.9
- Self-employed with employees	2.9	2.3	3.2	3.6	2.8
- Self-employed without empl.	8.3	7.8	8.7	9.5	7.8
- Skilled worker	24.0	31.6	18.0	19.2	16.6
- Unskilled worker	10.7	15.8	6.6	7.3	5.8
Father's education					
- University	12.4	4.4	19.0	17.0	21.3
- College	13.5	8.3	17.8	17.2	18.4
- Gymnasium	6.5	5.8	7.0	7.0	7.0
- Technical secondary	17.3	15.8	18.5	18.3	18.8
- Apprenticeship + secondary	9.1	10.3	8.1	8.5	7.6
- Apprenticeship	36.1	48.0	26.2	28.3	23.8
- Primary level	5.2	7.4	3.4	3.7	3.1
Mother's education					
- University	7.8	2.4	12.3	10.6	14.1
- College	17.8	10.2	24.1	22.7	25.8
- Gymnasium	19.3	17.9	20.4	20.6	20.1
- Technical secondary	16.2	15.4	17.0	16.9	17.1
- Apprenticeship + secondary	7.7	9.5	6.2	7.0	5.4
- Apprenticeship	20.1	28.2	13.3	14.8	11.6
- Primary level	11.2	16.5	6.8	7.4	6.0
Family income per capita					
- upper	7.9	5.3	10.0	10.7	9.2
- upper-medium	17.5	15.0	19.7	19.6	19.8
- medium	32.1	30.5	33.5	31.7	35.5
- lower-medium	17.5	40.3	31.6	32.1	31.1
- lower	7.9	8.8	5.2	5.9	4.3
Place of residence					
- Budapest	17.1	16.2	17.9	19.7	15.7
- County seat	24.1	20.5	26.9	25.2	28.9
- Town	27.3	26.4	28.2	27.6	28.9
- Village	31.5	36.9	27.1	27.6	26.5
Mean of educational performance	3.6	3.1	4.0	3.8	4.3
N of cases	60284	27436	32848	17588	15260

ference is also about twice as much in the case of the father and the mother. As data on family per capita income indicate, the applicants come from families in better financial circumstances than the dropouts do. While regional differences are smaller, those coming from larger and more urbanised settlements are over-represented among the applicants in comparison with leavers.

Achievement also varies among the different sub-groups of the fourth-year secondary school students. In what would seem to be proof of the presence of rational hopes and expectations, the educational performance of the applicants is better by almost one grade (on a five-point scale) as compared to that of the leavers. Students seem to evaluate themselves very critically and perhaps also rationally. If their marks are not good enough, they do not dare to submit an application to tertiary education.

By and large, the other two sub-groups, the successful and the unsuccessful applicants, show much less variation with respect to socio-demographic characteristics than that observed among the applicants and dropouts. Nevertheless, students with parents in managerial and professional positions or with university degrees are over-represented in the group of successful applicants. However, the financial circumstances of the students in these two groups differ surprisingly less. Moreover, successful applicants are even slightly under-represented among those who live in Budapest.

Educational performance also varies in the two sub-groups of applicants; indeed, successful applicants performed better at secondary school than unsuccessful applicants. However, there is a smaller difference in the mean of school performance between successful and unsuccessful applicants than the difference between applicants and leavers. The students' self-assessments seem to reflect their real capabilities more than the outcome of the selection procedure of the entrance examination committees of the universities or colleges.

The socio-determination of self-selection and selection: main effects

Having presented the descriptive statistics of the data and the bivariate relationships between the dependent and independent variables, we turn now to the multivariate analysis, in which the influence of the predictor variables is controlled. We ran one analysis (Model 1) for the application and another analysis (Model 2) for success in the entrance examination. Both models were fitted on the data twice; first we had only the main effects (the a-models) and second we added the interaction terms (the b-models). Table 3 provides information on the fit statistics and makes it possible to highlight the results in a condensed way.

Model 1a and 1b, investigating application and entrance to the tertiary education respectively, are alike and have the same set of independent variables (as the identical degree of freedom = 34 indicates). We have larger chi^2 in the first than in the second model. In addition, the R^2 value is much larger (.528) when predicting application than when predicting success in the examination (.161). It is therefore

Table 3. Fit statistics for the models fitted to the data, Hungary, 1998

Fit statistics	Application to tertiary education		Success in the entrance examination	
	Model 1a. (main effects)	Model 1b. (interactions)	Model 2a. (main effects)	Model 2b. (interactions)
-2 Log Likelihood - initial	54928.023		32185.054	
- model	34819.168	34627.101	29198.448	29134.674
Goodness of fit	38230.374	39143.235	23280.336	23292.077
Negelkerke's R-Square	.528	.532	.161	.164
Model Chi-Square	20108.855	20300.992	2986.606	3050.380
Df	34	61	34	47
Difference of chi-Square		192.137		63.774
Difference of df		27		13
Pct of correctly classified cases	79.48	79.60	64.96	65.24

possible to say that the decision on application (self-selection) is more strongly affected by the same set of social determinants than entry into a tertiary-level school (selection) is. Obviously, the results of the second model come from an equation of data referring to a (self-)selected group of students.

Unlike the models containing only the main effects, we cannot compare the models with the interaction terms in the same way, as different number of interactions turned out to be significant for Model 1b and 2b (the value of the degree of freedom differs in the two models). Instead, we can compare the model with interaction terms to the corresponding model with the main effects. For application (Model 1a and 1b), there is a small increase in the R^2 value, and there is an acceptable increase of chi^2 for the increase in the value of degree of freedom. Both of these measures indicate much less improvement for entry into tertiary education (Model 2a and 2b). In a strict statistical sense, the interaction terms do not add much to the model. Nonetheless, we will present the models with the interactions because they reveal some meaningful elements of the mechanism as being effective for transition from secondary school to tertiary education in Hungary.

Turning to the estimates, Table 4 displays the main effects of the independent variables on the probability of placing an application to tertiary education (Model 1a) and the probability of passing successfully the entrance examination (Model 2a).[5]

[5] Models 1a and 2a present the estimations in which independent variables control each other, but there are no controls for interaction terms. Model 1b and 2b includes the complete equations with the significant interaction terms. Table 5 displays the estimates for the interaction terms.

Table 4. Determination of self-selection and selection, Hungary, 1998: main effects

Predictors	Application to tertiary education				Success in the entrance examination			
	Model 1a.		Model 1b.		Model 2a.		Model 2b.	
	B + Sig.	Exp(B)	B + Sig.	Exp(B)	B + Sig.	Exp(B)	B + Sig.	Exp(B)
Educational performance	1.80***	6.06	1.65***	5.22	.99***	2.70	1.00***	2.71
Father's education								
- University	.77***	2.16	.63***	1.87	.00	1.00	.02	1.02
- College	.55***	1.74	.38***	1.47	-.05	.95	-.04	.96
- Gymnasium	.22*	1.25	.02	1.02	.08	1.08	.09	1.10
- Technical secondary	.34***	1.41	.24**	1.27	.04	1.04	.05	1.05
- Apprenticeship + secondary	.10	1.10	-.00	1.00	-.05	.95	-.04	.96
- Apprenticeship	.05	1.05	.02	1.02	-.02	.98	-.01	.99
Mother's education								
- University	.95***	2.59	.92***	2.50	.16	1.17	.16	1.17
- College	.72***	2.06	.70***	2.01	.15	1.16	.15	1.16
- Gymnasium	.47***	1.61	.46***	1.58	.08	1.08	.07	1.08
- Technical secondary	.46***	1.58	.43***	1.54	.09	1.10	.09	1.10
- Apprenticeship + secondary	.35***	1.42	.34***	1.40	-.01	.99	-.02	.98
- Apprenticeship	.08	1.08	.06	1.07	.01	1.01	.01	1.01
Father's occupation								
- Manager	.21*	1.24	.24**	1.27	.01	1.01	-.08	.92
- Professional	.11	1.12	.11	1.12	-.05	.95	-.16	.85
- Clerical	.20	1.22	.20	1.23	.14	1.15	.05	1.05
- Self-employed with employees	.24**	1.27	.26**	1.29	-.10	.91	-.43**	.65
- Self-employed without empl.	.19**	1.21	.20**	1.22	-.16	.85	-.14	.87
- Skilled worker	.05	1.05	.05	1.06	-.04	.96	-.11	.90
Mother's occupation								
- Manager	.47***	1.60	.32	1.38	.07	1.07	.07	1.07
- Professional	.21***	1.24	-.07	.93	.08	1.08	.07	1.08
- Clerical	.27***	1.31	.07	1.07	.02	1.02	.01	1.01
- Self-employed with employees	.24*	1.28	-.04	.96	-.17	.85	-.18	.84
- Self-employed without empl.	.24**	1.27	1.08**	2.94	-.10	.91	-.10	.91
- Skilled worker	.07	1.07	.35	1.41	.02	1.02	.02	1.02
Family income per capita								
- upper	.23*	1.25	.21**	1.24	-.06	.94	-.06	.94
- upper-medium	.02	1.02	.01	1.01	.04	1.04	.03	1.03
- medium	.11	1.11	.10	1.10	.16*	1.18	.16*	1.17
- lower-medium	.05	1.05	.04	1.04	.16*	1.18	.16*	1.17
Place of residence								
- Budapest	-.34***	.72	.45	1.57	-.34***	.71	-.45***	.64
- County seat	.15***	1.17	.25	1.28	.08*	1.08	.19**	1.21
- Town	.15***	1.16	.50*	1.65	.02	1.02	-.06	.94
Institution (Gymnasium=1)	1.39***	4.02	-.22	.80	.34***	1.41	.34*	1.40
Gender (Male=1)	.38***	1.47	-.13	.88	.30***	1.34	.42***	1.52
Constant	-7.7972		-7.1975		-4.5584		-4.5712	

Reference categories: occupation: unskilled worker; education: primary level;
family income per capita: lower; region: village.

Significance: *** p<.001, **p<.01, *p<.05

Note: Model 1b and 2b contains interaction terms between gender, institution, educational performance, and other predictors, estimates are displayed in Table 5.

The impact of educational performance is the strongest of all independent variables. One unit rise in the mean of educational attainment at the secondary school leads to a sixfold increase in the odds of becoming an applicant instead of leaving the educational system, and a threefold increase in the odds of success in the entrance examination. Educational institution is another powerful predictor in the models. Students coming from a gymnasium are four times as likely to submit an application and nearly one-and-a-half times as likely to meet the requirements of the entrance examination successfully, compared to students from secondary technical schools. Of course, we cannot overlook one fact, which we have already encountered, that students at a gymnasium come from families with a higher social standing. However, our multivariate model controls for this point. Unfortunately, this is not the case of educational performance. We cannot exclude the possibility that students who perform better at the secondary school had better marks at the primary school as well. This is another potential selection effect in our data. Consequently, our results do not allow a proper separation of the impact of personal abilities and that of institutional differences.

Estimates referring to the impact of the parental characteristics indicate moderate influence, but these variables (parental occupation, education, and income) have larger multi-collinearity, too. As expected, education is a stronger predictor than occupational class; especially the tertiary level of schooling – parents with a university or college degree – increases the probability of applying for school continuation. A self-employed father, if he is an employer and has employees, is a relatively important factor in educational decisions. The mother's characteristics have greater influence than the father's have. A mother in a managerial position or with a university degree increases the odds of application by more than the same social characteristics for the father do. If controlled for parental occupation and education, the financial circumstances indicate only a slight effect; only the highest income category increases the probability of submitting an application to tertiary education. Place of residence seems to be a stronger predictor, but living in Budapest has a negative impact if controlled for parental characteristics. Estimates for the main effect of gender show that men have significantly better odds for the transition from secondary to tertiary level than women have.

Comparing Model 1a and Model 2a, the most important finding is that parental characteristics have practically no significant influence on the odds of success in the entrance examination. Furthermore, both school performance and educational institution have less of an effect on success in the entrance examination than they do on the intention to continue school at the tertiary level. The gender effect is also smaller in the model predicting the success of entry into tertiary education.

The social determination of self-selection and selection: interaction terms

Model 1b and Model 2b add the interaction terms to the equations. By consequence, the magnitude of the main effects decreases somewhat, but not in a considerable manner. The estimates for the interaction terms that turned out to be significant appear in Table 5.

The extended model contains the interaction terms of gender, type of secondary school, educational performance, with characteristics of the parental family. The results indicate that the significant interaction terms differ in the two models in many respects.

First, worth mentioning are the findings with respect to gender. We have seen that men have a higher relative probability of continuing in school continuation than women. There is, however, a significant positive interaction between gender and educational performance for the odds of deciding on applying to tertiary education. This shows that men choose to continue into tertiary education particularly when they have good marks at secondary school. When they do not exhibit enough signs of learning abilities, they will probably prefer to leave the educational system and try to enter into the labour force and begin earning money. Women are likely to attempt to continue in school even if their educational performance is weaker. In addition, another significant interaction term between gender and the educational institution reveals that the men with higher odds of submitting an application to tertiary education are mostly from gymnasiums, i.e. from the type of secondary school where they are under-represented.

Another significant (negative) interaction term between gender and the mother's occupation indicates that women benefit from the higher status of their mother much more than men do. Since this applies to Model 1 only, it seems that women need to have a mother with a high social status particularly for making a positive decision about continuing their studies at the tertiary level. Finally, the advantages of men appear to be more pronounced in Budapest, where their odds of deciding to continue their studies at the tertiary level and their likelihood of a successful entrance are both higher than for men from smaller settlements.

Interactions with the type of secondary school and educational performance provide good opportunities for obtaining further interesting observations. The main effects already revealed that coming from a gymnasium and performing well at the secondary level increase the odds of a successful transition to the tertiary level. If these two circumstances interact, the probability of a positive decision on the continuation of studies is even higher. Interactions reveal another sign of cumulative advantages. For students from gymnasiums, the father's education also makes the odds of applying to tertiary education significantly higher than it does in the case of students from secondary technical schools. Finally, it is interesting to note the interaction between school performance and place of residence. It would seem that students in Budapest have a higher level of self-confidence than students from smaller settlements, as they tend to apply to tertiary education even if their educational performance is weaker.

Table 5. Determination of self-selection and selection. Hungary, 1998: interaction terms

Predictors	Application to tertiary education		Success in the entrance examination	
	B + Sig.	Exp(B)	B + Sig.	Exp(B)
Gender (Male=1)				
* Educational performance	.19***	1.21	-	-
* Institution	.31***	1.37	-.28***	.76
* Mother's occupation				
- Manager	-.27	.77	-	-
- Professional	-.38***	.69	-	-
- Clerical	-.15	.86	-	-
- Self-employed with employees	-.22	.81	-	-
- Self-employed without empl.	-.38**	.68	-	-
- Skilled worker	-.21*	.81	-	-
* Place of residence				
- Budapest	.21*	1.23	.26**	1.29
- County seat	.10	1.12	.00	1.00
- Town	-.08	.93	-.01	.99
Institution (Gymnasium=1)				
* Educational performance	.34***	1.40	-	-
* Father's education				
- University	.47**	1.60	-	-
- College	.57***	1.77	-	-
- Gymnasium	.64***	1.89	-	-
- Technical secondary	.42**	1.52	-	-
- Apprenticeship + secondary	.40*	1.49	-	-
- Apprenticeship	.13	1.14	-	-
* Father's occupation				
- Manager	-	-	.17	1.18
- Professional	-	-	.19	1.21
- Clerical	-	-	.17	1.19
- Self-employed with employees	-	-	.53**	1.71
- Self-employed without empl.	-	-	-.01	.99
- Skilled worker	-	-	.12	1.13
* Place of residence				
- Budapest	-	-	-.02	.98
- County seat	-	-	-.19*	.83
- Town	-	-	.14	1.15
Educational performance				
* Mother's occupation				
- Manager	.08	1.08	-	-
- Professional	.13	1.14	-	-
- Clerical	.07	1.08	-	-
- Self-employed with employees	.11	1.11	-	-
- Self-employed without empl.	-.20*	.82	-	-
- Skilled worker	-.06	.95	-	-
* Place of residence				
- Budapest	-.26***	.77	-	-
- County seat	-.04	.96	-	-
- Town	-.09	.91	-	-

Significance: *** p<.001, **p<.01, *p<.05

The results indicate less significant interactions for Model 2, in which the odds of a successful entrance examination are predicted. The most noteworthy finding is that the indicator of the interaction between gender and the type of secondary school changes from positive to negative. Men from a gymnasium were more likely to submit an application to tertiary education. However, in the next step of the process of selection they appeared to be less successful in passing the entrance examination than men from secondary technical schools or women from gymnasiums. However, men from Budapest seem to perform better in the entrance examination.

Discussion

This paper set out to analyse the transition from secondary school to tertiary education. For this purpose, it took a special approach to the process, with the transition being divided into two stages: (1) the self-selection of students who decide on continuing their studies at the tertiary level and take an administrative step; (2) the selection made by the educational institution at the tertiary level in the form of a formal (written/oral) entrance examination.

Two theories were applied to interpret the findings: the cultural reproduction theory and the rational action theory. Although these are frequently considered to be competing theories, the present analysis indicates that both can be successfully applied.

Empirical multivariate analysis of the odds of self-selection and selection revealed that family background has a significant explanatory role in the process. Both the father's and the mother's social characteristics affect self-selection, and, as assumed, the parents' educational level increases the odds of deciding in favour of school continuation more strongly than the parents' occupational class does. The financial situation of the family matters less, but this could be a consequence of (1) having parental occupation and education in the same equation (multi-collinearity among the independent variables) or (2) analysing a selected population of secondary school students who have already undergone a transition from primary to secondary education, and it was this former transition that was more affected by the financial situation of the family, or (3) having only a very rough and subjective measure of the financial conditions in the family.

With respect to gender differences, men have better odds of continuing their studies at the tertiary level. As expected, the social status of mothers has a larger impact on the choice of women and improves their odds significantly. Assumptions about the role of regional differences received less support.

Although ascription counts, achievement measured by educational performance is the strongest predictor of successful school progression. We know, of course, that educational performance is not independent of social background, but we nonetheless controlled for this fact. It does not hold, however, that better edu-

cational performance improves the chances of students who come from families with a lower social status or from smaller settlements; the interaction terms that aimed to test this hypothesis turned out to be insignificant. But another significant interaction revealed that better educational performance improves the odds for men in particular.

Descriptive statistics showed that the social composition of students at various types of secondary schools differ considerably. Even when controlling for this fact, multivariate analysis revealed that the type of institution (i.e. coming from a gymnasium) improves the odds of successful school progression. There is a higher probability that men from a gymnasium will choose to continue their studies at the tertiary level, but they are less successful at passing the entrance examination. Although having studied at a gymnasium raises the chances of making the transition to tertiary education, surprisingly, this does not signify any special advantage for students who are from lower status families. On the contrary, the interaction terms between the type of secondary school and parental characteristics revealed an accumulation of advantages.

The analysis confirmed the main hypothesis of the research that self-selection plays the basic role in the transition from secondary to tertiary education. Both ascription (family background) and achievement (educational performance) more strongly affect the decision whether to continue education at the tertiary level than the success of the self-selected group of applicants in the entrance examination does. The same holds true for the role of the type of secondary school in the process. This evidence gives strong support to the rational action theory. It appears that, as the theory argues, students at the secondary school level make calculations and consider costs and benefits. A previous analysis indicated that secondary school students are capable of making good estimates of the income Hungarian employees receive in different occupations, and the expected level of income has an impact on their decisions relating to school progression into tertiary education [Varga 2002]. According to our results, this cognitive process, the evaluation of the probability of success, is first of all influenced by the students' educational performance. The high level of school performance, in correlation with an advantageous family background, appears to provide them with self-confidence and it results in an affirmative perception of the costs and benefits in making the decision on continuing in school. It seems that calculation (the rational evaluation of costs and benefits) is, in fact, strongly related to the cultural climate in the family.[6]

[6] The models included multiple measures for social origin and this fact increases the multicollinearity among the independent variables. However, in a set of alternate models not presented here, four selected variables were used separately to predict the effect of family background (in addition to school performance) without including any other measure for social origin: father's education, mother's education, father's occupation, and financial situation. In all four of these models, one unit rise in the mean of educational performance increased by about six times the odds of becoming an applicant instead of leaving the educational system. In the case of the four measures of family background listed above, the father's university

The type of secondary school is the second best predictor of self-selection. Those students who continued their studies in gymnasiums and not in secondary technical schools after the primary level of education are four times more likely to attempt to continue in school to the tertiary level. This indicates that a large part of the process of calculation and self-selection had probably already occurred following the completion of primary education, when students (and their parents) decided on the type of secondary school to attend and already had some future plans about tertiary education. Therefore, we cannot be sure if the above-mentioned result is a consequence of the better educational climate and stronger academic curriculum provided in the gymnasiums or if it is the outcome of the selection effect that the students in gymnasiums experience. It most likely that both mechanisms are present.

This analysis offered a general look at the problem of self-selection and selection in the educational transition from the secondary to the tertiary level of education in Hungary, but it has some obvious limitations. Here we studied a selected group of students who were able to make the earlier school progression from the primary to the secondary level. Consequently, the results relating to the determinants in the transition from secondary school to tertiary education may be somewhat biased and probably underestimated.

We could have defined our dependent variable in a more detailed way. No distinction has been made for types of educational institutions at the tertiary level, such as universities and colleges or different branches of these institutions. As mentioned in one of the footnotes above, the way the entrance examination is practised varies among the schools at the tertiary level and we did not consider this part of the calculation. It is possible that students with a lower level of educational background, or coming from families with a less favourable social standing, tend to select institutions where it is 'easier' to get in and which are more accessible.[7]

Similarly, gymnasiums and secondary technical schools provide only a rough manner of differentiating between educational institutions at the secondary level. For example, by separating public and non-public (religious) schools, another analysis on the same data indicated that religious secondary schools are more effective in Hungary than the public schools are [Dronkers and Róbert 2003]. Given the (limited) availability of data, the analysis was restricted to those students who had completed their secondary education in the given year. Though nearly one-half of them

diploma resulted in an increase of the same odds by about four times; the mother's university diploma increased the odds by five times; the father's managerial position indicated an increase in the odds by less than three times; and the upper level of family per capita income showed an increase in the odds by about twice as much.

[7] Mare [1993] has an important claim on unobserved heterogeneity in measuring the impact of social background on school progression. In the Hungarian context, when students have to pass an entrance examination in order to enter into tertiary education, another kind of unobserved heterogeneity is encountered, specifically, the institutional policies and practices relating to the exam.

did not in 1998 attempt to continue their studies, many of them could decide to make the attempt to enter into tertiary education one or two years later, either in full-time or part-time study. Official statistics indicate that roughly four out of ten applicants at the entrance examination for entry into tertiary education are students who had not applied earlier or failed to pass the entrance examination in the previous year(s). These limitations to the analysis do not necessarily undermine the findings presented here, or the relevance and presence of some rationality with respect to decisions on education being made in Hungarian families. But the picture is far from complete. Further analyses should go into details in these respects, using additional data, more refined classifications, and applying other methodological approaches in order to provide better insight into the process of self-selection and selection and to obtain a better understanding of decisions relating to education.

PÉTER RÓBERT *is Associate Professor at the Eötvös Lóránd University, Budapest. He is also a senior researcher at the Social Research Center (TÁRKI). His research interests are in the field of social stratification and mobility, with special focus on educational inequalities and life-course analysis.*

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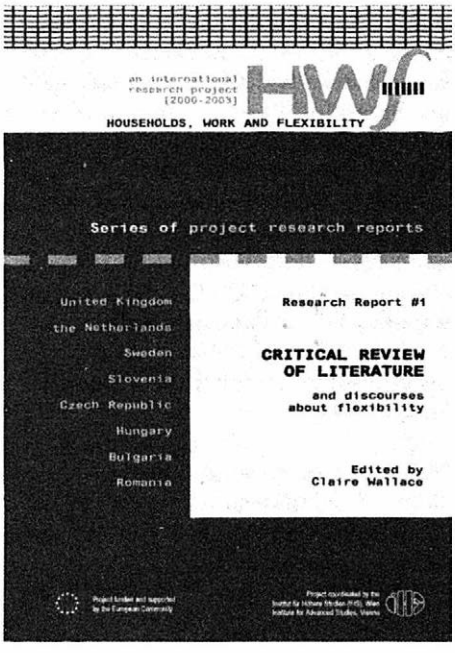
P R O S P E C T U S



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Cost Sharing in Higher Education: Tuition, Financial Assistance, and Accessibility in a Comparative Perspective

D. BRUCE JOHNSTONE*
State University of New York at Buffalo

Abstract: Cost sharing in higher education is the assumption by parents and students of a portion of the costs of higher education - costs that in many nations, at least until recently, have been borne predominantly or even exclusively by governments, or taxpayers. The author presents empirical evidence of, and various theoretical justifications for, increasing cost sharing throughout the world in the forms of tuitions and fees, the diminishing real value of student maintenance grants, and an increasing reliance on private forms of higher education. Resistance to cost sharing, both ideological and strategic, is also analysed. The author discusses policy alternatives such as grants versus loans and the criteria for an appropriate tuition level, as well as the impact of cost sharing on enrolment behaviour. He concludes that increased cost sharing is probably inevitable, less on the basis of the classical neoliberal economic claim for greater equity and efficiency than on the basis of the sheer need for revenue and the increasing priority of alternative claims on public treasuries.
Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3: 351–374

Cost sharing in higher education refers to a shift in the burden of higher education costs from being borne exclusively or predominately by government, or taxpayers, to being shared with parents and students. This cost sharing, as articulated in Johnstone [1986, 1992, 1993b, 2002, 2003], may take the form of tuition, either being introduced where it did not hitherto exist or being rapidly increased where it already did, or of public institutions charging more nearly break-even, or full, cost fees for room, board, books, and other costs of student living that may formerly have been covered mainly by the government. A shift of the cost burden from the government to student and family may also come in the form of a reduction or even a *freezing* (especially in inflationary times) of student grants. Similarly, it may come in the form of a reduction of the *effective grants* represented by student loan subsidies,

** Preeti Schroff Mehta and Pamela Marcucci helped immeasurably in compiling the country data for this paper. An earlier version of this paper, by Johnstone and Schroff-Mehta, will appear as "Higher Education Finance and Accessibility: An International Comparative Examination of Tuition and Finance Assistance Policies", in *Globalization and Reform in Higher Education*, edited by Heather Eggins. London: Society for Research into Higher Education, 2003.
** Direct all correspondence to: Prof. D. Bruce Johnstone, 428 Baldy Hall, University at Buffalo, Buffalo NY, USA, 14260; e-mail: dbj@buffalo.edu

as interest rates are increased to become closer to the costs of money or market rates. Finally, the shift may come about through public policies that shift enrolments, particularly in rapidly expanding systems, from a heavily subsidised public sector to a much less subsidised, tuition-dependent private sector.[1]

In all these ways, and in combinations thereof, albeit unevenly and still ideologically contested, the burden of higher educational costs worldwide is being shifted from governments or taxpayers to students and families.[2] Thus, we can observe cost sharing entering into the public policies of countries with totally different social-political-economic systems and at totally different stages in their expansion of higher educational participation: e.g. China, Vietnam, the UK and Austria.

In light of this shift, this article explores five questions:

1. What are the theoretical and practical rationales for shifting some portion of the higher educational cost burden from governments and taxpayers to students and families?

2. What are the theoretical, political, ideological, practical, and/or strategic bases for resistance to this shift?

3. What is the impact of increasing cost burdens (mainly tuition and related fees) on student enrolment behaviour – that is, enrolment, persistence to a degree, continuation to a higher degree, and the decision of where or in what kind of higher educational institution to enrol? (In this connection, we will be particularly interested in whether enrolments might be dampened for those whose access is already compromised by (a) low income; (b) racial, ethnic, religious, or linguistic status; (c) gender (most often 'being female'); or (d) isolation – especially from good secondary schools and the cultural enrichment generally associated with urban areas, as well as from institutions of higher education close enough to allow living at home).

4. What is the higher education cost (or more properly *expenditure*) burden currently being borne by the student and family in various countries, and what is the recent increase in these costs borne by students and families as opposed to governments or taxpayers? (This question must consider any offsetting effects of means-tested or otherwise targeted grants and student loans).

5. What policy tools – e.g. need-based grants, loans, loan subsidies, very low or no tuition, subsidised lodging and food – are being employed to increase accessibility, and what is known of their efficacy?

[1] For an extensive collection of papers and studies on cost sharing, see *International Comparative Higher Education Finance and Accessibility Project*: http://www.gse.buffalo.edu/org/IntHigherEdFinance.

[2] 'Taxpayers' includes the general citizen/consumer losing purchasing power to the government via the higher prices brought on by hidden business taxes or through inflation brought about by public deficit financing.

Rationale for cost sharing

The principal causes for or rationales behind this shift are three, and they differ considerably in their underlying economic, political, and ideological assumptions. The first rationale is the sheer need for other than governmental revenue. This need begins with the dramatic increase in most countries in both the public and private demand for higher education, recognised as a major engine of national economic growth and a provider of individual opportunity and prosperity. This demand pressure is a function of the sheer demographic increase in the traditional college-age cohort, compounded by the increasing secondary school completion rates, which in turn increases the number of those wanting to go on to higher education, further compounded by an expansion of what may be considered a college-going age cohort to include adults formerly by-passed by the system. This demand pressure is especially felt in low income countries that are still trying to change from 'elite' to 'mass' tertiary-level participation, at the same time as they are trying to become more economically competitive in an increasingly global economy. But the increase in demand for higher education can also be found in countries already at mass or even near-universal participation rates, as the average student 'consumes' ever increasing amounts of higher or (at least post-secondary) education over his or her lifetime.

However, the institutions delivering higher education are nearly everywhere – and especially in most developing or low-income countries and in those countries in transition from command to market-driven economies – also suffering from a severe and worsening austerity. This austerity is a function of at least three forces. The first is the demand pressure, mentioned just above. The second is the high – and likely to increase – per-student costs on top of the increasing numbers of students.[3] Per-student costs in higher education generally rise faster than unit costs in the general economy owing to the traditional resistance on the part of academia (institutions and faculty alike) to measures that would increase productivity by substituting capital for labour or by shedding existing, but lower priority, programmes and their associated labour costs.[4]

[3] Specifying (not to mention making international comparisons between) per-student, first-degree, instructional costs is oftentimes unreliable for several reasons including: (1) the difficulty of attributing costs to first degree instruction as opposed, say, to the costs of research or service or advanced instruction; (2) great variability in the accounting treatment of pension and other so-called benefits expenses, in addition to direct salary costs; and (3) a similar variability in the treatment of capital costs within most of the published international data on the comparative costs of higher education.

[4] The resistance to productivity or efficiency is pervasive in the classical university in most countries, although a kind of 'efficiency' is being forced upon many universities in the forms of mandatory enrolment increases, cuts in faculty numbers, and freezes or even reductions in faculty salaries. The more purposeful enhancement to higher educational productivity – e.g. through the application of instructional technology, or the radical restructuring of instructional styles and faculty workloads – are more likely in entirely new institutions and sectors (such as 'distance learning universities'), but it may be debated whether these forms are genuinely 'more productive' or are better described as 'different albeit cheaper'.

A third cause of increased austerity, especially in the low income and 'transitional' countries, is the decline in available public (taxpayer-based) revenue. This decline, in turn, may be a function either (or both) of an increased difficulty of taxation, or of competition from other, oftentimes more politically compelling, public needs. For example, taxes were relatively easy to collect in centrally controlled economies such as the former Soviet Union and Eastern Europe before the collapse of communism, where purchasing power could be siphoned off at each level of the state-owned production processes via 'turnover', or other forms of value-added taxes. The state could also control – and thus tax – all international trade. Privatisation and globalisation have essentially eliminated these largely invisible and easy-to-collect taxes, and the alternatives – e.g. taxes on income, retail sales, property, and the sales of luxury goods – are visible, unpopular, expensive, relatively easy to avoid, and technically (in addition to politically) difficult to collect. Furthermore, for the limited taxes that can be collected (or the limited deficit financing that the economy can tolerate), higher education increasingly has a lower priority than other public sector needs such as elementary and secondary education, public health, housing and public infrastructure, welfare and the social and economic 'safety net', and internal and external security.

It is in light of these forces and the consequent financial struggles that national systems of higher education and institutions nearly everywhere in the world are having to supplement their governmental revenues, not only with 'cost sharing', as noted above, but also with entrepreneurial activities such as the sale of faculty services, the sale or lease of university facilities, the vigorous pursuit of grants and contracts, and fund raising from alumni, corporations, and friends. Thus, tuition and other fees from students and families have the potential for substantially augmenting the increasingly scarce public revenues. Tuition also has the advantage of doing so without simultaneously adding new costs or diverting faculty from their core teaching responsibilities (as is the case with supplementing revenues via grants and contracts or other forms of faculty entrepreneurship).

The objection that imposing tuition or increasing it at a rapid rate might exclude potential students from poor or rural or otherwise disadvantaged families can be met, it is argued, by the promise of generally available loans (i.e. loans that do not depend on the creditworthiness – and thus the financial worth – of the family), or by means-tested student grants, paid for, at least in part, by the augmented tuition revenue. In fact, the proponents of cost sharing are likely to argue that the alternative to some form of substantial public revenue supplementation is continued or worsening austerity in the public higher education system, the likely result of which would be limitations on enrolment and/or increasingly shabby and underfunded universities. And because the sons and daughters of the wealthy will always have alternatives (in the private sector or higher education abroad), the students, or potential students, who will be hurt most are the very disadvantaged students that the resistance to tuition is supposed to protect.

The second rationale for tuition and other forms of cost sharing, based less on

need or expediency than on principle (however ideologically contested), is the notion of equity: the view that those who benefit should at least share in the costs. The principle is made more vivid and compelling by four observations. The first is that 'free' higher education is actually paid for by all citizens, whether or not they know that they have been taxed (or have had their purchasing power effectively confiscated by inflation brought on by the printing of money). Second, most taxes – public policies to the contrary notwithstanding – are collected through regressive, or at best proportional, taxes on sales, production, or individual incomes that cannot be otherwise hidden (or through the even more regressive governmentally-induced inflation, as mentioned above). Third, a very disproportionate number of the beneficiaries of higher education are from middle, upper middle, and upper income families who could and would pay at least a portion of the costs of instruction if they had to – thus demonstrating the value to them of the higher educational opportunity and signalling the benefits that are thought to be private as opposed to public. Such students and families would probably prefer that much or all of this particular benefit be paid for by the general taxpayer. But whether higher education is subsidised or not – that is, whether tuition is zero, moderate, or high – should make little or no difference in the enrolment behaviour of the students from more affluent families. In this instance, the higher public subsidy required by low or no tuition can be said (at least by the proponents of 'cost sharing') to resemble a transfer payment from the public treasury to middle and upper middle class families. Fourth and finally, to the extent that there are potential students who would be excluded from higher education by the presence of tuition, a portion of the tuition collected can easily (at least in theory) fund the means-tested grants and loan subsidies that can (again, at least in theory) maintain and even enhance accessibility.[5]

A third rationale for cost sharing in higher education is the neoliberal economic notion that tuition – a price, as it were, on a valuable and highly demanded commodity – brings to higher education some of the virtues of the market. The first such virtue is the presumption of greater efficiency: that the payment of some tuition will make students and families more discerning consumers and the universities more cost-conscious providers. The second virtue attributed to the market is producer responsiveness: the assumption that the need to supplement public revenue with tuition, gifts, and grants will make universities more responsive to individual and societal needs. A variation on this theme is directed at the alleged problem of academ-

[5] Some classic expositions of this equity argument include W. L. Hansen and B. A. Weisbrod, *Benefits, Costs, and Finance of Higher Education* (Chicago: Markham Publishing, 1969); Carnegie Commission on Higher Education, *Higher Education: Who Pays? Who Benefits? Who Should Pay?* (New York: the McGraw Hill Book Co., 1973); J. P. Jallade, "Financing Higher Education: The Equity Aspects," *Comparative Education Review*, June 1978, pp. 309–325; and G. Psacharopoulos and M. Woodhall, *Education for Development* (Oxford: Oxford University Press for The World Bank, 1985); and J. C. Hearn, C. P. Griswold, and G. M. Marine, 'Region, Resources, and Reason: A Contextual Analysis of State Tuition and Student Aid Policies', *Research in Higher Education*, 37 (3), pp. 241–278.

ic malingering – that is, students alleged to be taking more years or more courses (or both) than are necessary or even useful merely or largely because the courses and sometimes even the living expenses are paid for, and because the alternative may be either unemployment or an unappealing job out in the real world. Germany, the Netherlands, and the US have responded in part by eliminating or reducing student aid after insufficient progress toward the degree, and some US states have begun charging higher, out-of-state tuition after so many 'excess' credits.

Resistance to cost sharing

All of this is contested ideological ground, and not all policy makers, observers, or stakeholders share the notion that increased cost sharing – that is, a further shift of the cost burden to the student and family – is correct, necessary, or even 'good expediency'. The shift in the higher educational cost burden from governments and taxpayers to students and families may not be easily accepted, especially in countries with dominant socio-political ideologies that hold higher education to be another social entitlement: to be free, at least for those fortunate enough to make it through the rigorous academic secondary system. This ideology, in turn, can stem from a view that society is the major beneficiary of higher education, and that this observation ought to override the demonstrably high private benefits received by the graduates and their families.

This economic rationale provides good theoretical cover to student, parent, and faculty self-interest in the preservation of low or no tuition. Students, regardless of ideology, tend (understandably enough) to resist the imposition of, or increase in, tuition. Students can be a formidable political force, particularly in leftwing and radical politics, especially in Europe and Latin America and in some countries in Asia. Also, parents of students and would-be students, especially in low-income countries, may be politically powerful elites who just happen to benefit most from the free higher education. This may explain why many students and families, both affluent and low-income, and both 'left' and 'right' often tend to oppose tuition, while most economists and many political scientists, including those on both the political left and right, tend to approve at least some degree of 'cost sharing'.

In opposition to efficiency and market responsiveness as rationales for greater cost sharing, many academic leaders assert that a proper higher education is supposed to be removed, or at least substantially insulated, from commercialisation and market forces. According to many academic traditionalists, slavishly following what students think they want, or what politicians or business think they want students to take, is the road to academic mediocrity. Furthermore, there is no evidence, at least in the US, that academic responsiveness, educational quality, or efficiency improves with higher tuition. However, this traditionalist position is increasingly viewed by governments and many citizens as academically self-serving, as well as costly to the taxpayer.

The view that higher education ought to be 'free' or at least very highly subsidised may also be mainly pragmatic and strategic, regardless of ideology or politics. For example, many opponents to the view of cost sharing, as presented above, accept the notion that means-tested financial assistance and loans might in theory preserve accessibility in the face of rising tuition and diminishing taxpayer subsidies to the 'well-off'. However, they claim that children of the poor may not understand that high tuition can be offset with grants and hence might not aspire to a university education during the middle and secondary years, when the absence of such aspiration may effectively preclude the option of any higher education. It is also alleged that children of working class or peasant backgrounds resist borrowing, less from personal economic calculations than from a cultural aversion to debt. Finally, while a policy of high tuition combined with generous means-tested aid might be more efficient, in the sense that the available public subsidies can be more effectively targeted, the high tuition can be imposed by short-term political expediency, while the high aid requires a longer-term ideological commitment – and the result can easily be a de facto policy of 'high tuition-low aid' or 'high tuition-high loans only' [Johnstone 1993a].

Resistance to the shift of costs from governments and taxpayers to students and parents may be based on recognition that scarce taxpayer dollars are allocated by political authorities not necessarily on a rational assessment of the costs and benefits of all competing claims, but on the basis of which claims can muster the greatest political pressure. To *critical* or neo-Marxist opponents of neoliberalism, both the market and the liberal democratic politics prevailing in most of the West mainly perpetuate the existing unequal distribution of power, status, wealth and economic opportunities. A major plank in the critical opposition to higher educational cost sharing and marketisation is the assertion that, contrary to the prevailing neoliberal position, taxes *can* be raised, both substantially and progressively, if there is but the political will and leadership. Doing so, they assert, would obviate the need for tuition and other forms of cost sharing, and would also avoid the danger of losing enrolments (particularly among the poor) and risking failure in possibly ineffective and expensive financial aid and loan schemes [Colclough and Manor 1991; Buchert and King 1995].

In keeping with this strictly strategic resistance to cost sharing, even otherwise staunch neoliberals may worry that increases in tuition may lead neither to more resources for the university, nor to additional need-based aid and greater participation among the hitherto by-passed, nor even to a shift in public resources to other socially worthwhile programmes, but simply to a shift of taxpayer resources from higher education to some other claims that may be more politically forceful, including tax cuts for the wealthy. Thus, it is not necessarily irrational nor irresponsible for stakeholders (even if they are strong believers in most of the typical neoliberal agenda) to advocate for one particular object of public expenditure – say, high subsidies and low or no tuition for higher education – to the exclusion of other public purposes (or tax cuts), which can be assumed to have their own fierce advocates.

However, if the political authorities do not or cannot provide sufficient public revenue to higher education in spite of advocacy for additional tax funds and resistance to tuition (and this is the essential plank of the prevailing neoliberal, cost-sharing advocacy typified by the World Bank), the continuing austerity at some point will become sufficiently damaging – to the point of severe enrolment limitations and increasingly inadequate numbers and/or quality of faculty, books, equipment, and physical plant – that more and more parents, students, university rectors, and faculty will accept the inevitability, and even perhaps the desirability, of cost sharing through tuition and other means.

Cost sharing in higher education

For the reasons cited above, some increased costs borne by parents and students are probably both inevitable and economically rational. The tenets of neoliberal economics seemed to be ascendant in most countries at the close of the twentieth century, including China and much of Eastern and Central Europe, as well as the highly industrialised countries of the West. In the US, UK, and Germany, the embrace of market solutions, privatisation, and fiscal discipline – long the hallmarks of conservative parties – have become central to the political planks of what traditionally had been the parties of the left, particularly when these parties took over their governments in the 1990s. Although public higher education in the US is the province of several states, the 1980s and 1990s saw very great increases in public sector tuition in most states. In 1997, Britain, under a Labour government, broke sharply with the European tradition of free higher education. Germany, at the turn of the century, once again under a Social Democratic government, conspicuously failed in 1999 to reiterate the traditional Higher Education Framework Law guarantee of free higher education to all successful graduates of German academic secondary schools. And in 2001, Austria became the first German-speaking country to adopt tuition.

The supplementation of higher educational revenues by non-governmental sources – primarily students and family – is one of the major recommendations from the World Bank and most other development experts as one important solution to increasingly underfunded and overcrowded universities in the developing world [Johnstone 1991, 1993b; Woodhall 1992; World Bank 1994; Ziderman and Albrecht 1995; Johnstone, Arora, and Experton 1998]. We can see the beginnings of tuition and various kinds of fees in such countries as China, Vietnam, India, and more and more countries in Latin America and Africa. We see the dilemma of Russia, Eastern Europe, and the other countries of the former Soviet Union, all struggling with the need for tuition to supplement increasingly inadequate public revenues for higher education, looking for loopholes in their present constitutional guarantees of free higher education [Bain 1997]. We see a mature, even if uneven, private higher education sector, mainly tuition-supported, in Japan, Korea, the Philippines, Chile, Brazil, and elsewhere in Latin America, and private higher education sectors emerg-

Table 1. Representative College / University Public Sector Tuition (First Degree, Most Recent Available Academic Year, US Dollars)

Country	High Tuition	Low Tuition
Austria	746	746
Canada	5,000	1,366
China	2,591	518
Japan	2,974	2,974
India	85	20
Mexico	1,159	178
Russia	12,026	0
South Africa	3,293	1,085
United States	6,000	1,600
UK	1,565	1,565

Source: *Information from the Higher Education Finance and Accessibility Project, University at Buffalo Center for Comparative and Global Studies in Education. http://www.gse.buffalo.edu/org/IntHigherEdFinance*

ing in the countries of the former Soviet Union and the rest of Eastern Europe. Representative public sector tuitions in a number of countries are shown in Table 1.

In the face of the increasing expenses borne by students and parents, national systems and individual institutions face the challenge of maintaining higher educational accessibility, especially for poor, minority, rural, and other traditionally under-served populations. (This challenge is particularly compelling in light of the increasing income disparities being experienced in most of the countries of the world.) In the US and many other countries, the principle of expanding higher educational opportunity and accessibility is being met, among other ways, with means-tested student financial assistance and/or with governmentally guaranteed and generally available student loans (or other forms of delayed payment, such as graduate taxes).

What is most problematic about this shift, at least in the developing world and in the nations of the former Soviet Union and Eastern Europe, is that many of these countries may lack (in addition to a sufficiently affluent middle class that can afford tuition) such beliefs and traditions as:

- A belief in the very appropriateness of tuition: that is, that parents and/or students *should* contribute to the instructional costs of higher education, at least to the limit of their abilities, even in the acknowledged 'public' institutions. (Families in many European countries expect to pay for their children's *living costs*, although not the *instructional costs*, or *tuition* – which is why the ability to attend university and live at home is important, and why higher education is so much more accessible in urban areas. Families in Scandinavia expect their high taxes to assure free higher ed-

ucation, but expect their children – as young independent adults – to bear the costs of living through ubiquitous, subsidised loans.)

– The tradition of revealing incomes and assets, honestly, in response to tax laws or requests for the documentation of financial need for the obtaining of student assistance. (The difficulty of income verification is becoming more of a problem in developing and 'transitional' economies with the spread of *private employment*, particularly among the middle and professional classes, where employment has traditionally been mainly governmental, and incomes easy to track.)

– The tradition of philanthropic giving to higher education, which can build up scholarship funds at colleges and universities, public as well as private. (Some cultures have strong traditions of charity, or of giving to religion, but not necessarily to higher education, which is considered either a private good, appropriately affordable to the elite, or the responsibility of the government.)

It is because of these traditions (together with the nearly $56 billion dollars in student aid and loans, most of it 'need-sensitive') that the US, in the face of the very high costs of higher education, both public and private, can still hold to the claim that access to higher education, up to the limits of a student's ability and interest, need not be precluded by family financial status. Elsewhere, in the absence of these traditions, and of public policies to maintain accessibility, there is reason to believe that higher education will become increasingly unattainable to all but the affluent.

But policies such as means-tested financial aid and generally available student loans at moderate interest rates are financially, politically, technically, and sometimes culturally difficult. For example, 'financial need' is exceedingly difficult to ascertain and verify, especially in non-Western countries, where private sector incomes may be neither reported nor even recorded (or certainly under-reported) and where tax evasion is everywhere prevalent [McMahon 1988]. Whatever parental financial responsibility may exist may be limited to sons, or may be handled by extended families. Sections of the population may subsist on largely non-monetary income, making 'financial need' even more difficult to assess. Yet without some way of assessing 'need', either very large segments of the population must effectively be denied access to higher education, or tuition must be kept at zero or low for all students – which, in the absence of alternative public revenue, would mean that the colleges and universities would either have to limit enrolments (and continue to serve only a small elite), or maintain them at such levels of overcrowding and shabbiness so that all students may be denied a decent higher education.

What is the right tuition?

In response to recognition of the need for, and even the inevitably of, greater cost sharing – which frequently is merely a euphemism for the introduction of or sharp increase in tuition – ministries and higher educational leaders frequently inquire: 'What is the proper level of tuition?' They are generally looking for either a mone-

tary amount or a percentage of instructional costs that would be 'appropriate' or at least in some kind of international higher educational mainstream.

But the question of 'a proper tuition' cannot be given any kind of useful answer apart from a context of other policies and contextual circumstances. The principal ones are the following.

1. *The existence of other kinds of non-discretionary 'fees' in addition to tuition.* These 'other-than-tuition' fees may be so-called 'up front' or 'one time' fees, or other mandatory fees for e.g. application, registration, student programmes, athletics and recreation, technology, etc. The state of California was notorious for maintaining very low tuition only because of the very high fees. Japanese universities charge 'application fees' as high as $350, which for the major private universities can provide in excess of $15 million in operating revenue with almost no offsetting cost. Indian universities are known for their myriad of small fees.

2. *The per-student costs of the particular higher educational institution or programme in question.* Costs vary substantially across institutions and sectors, and especially across programmes. If cost sharing – generally meaning the charging of tuition – is established by policy as some percentage of per – student instructional expenditures, then it matters greatly in making international comparisons how these per-student costs, or institutional expenditures, are calculated. But these costs depend on assumptions or accounting conventions: for example, how so-called indirect costs, or institution-wide expenditures, are apportioned among first-degree or graduate instruction, or how pension costs, or the costs of health insurance, or the costs of capital are handled. In addition, per-student costs vary considerably among degree programmes in accordance with prevailing faculty-student ratios, equipment needs, and other programme-specific costs – as, for example, among programmes in science, history, or undergraduate teacher education.

3. *The private benefits believed to be attached to certain institutions or certain degree programmes.* Regardless of the underlying instructional cost differences, it is commonly thought appropriate (or perhaps merely expedient, or just more feasible) to recover a higher percentage of these costs from those programmes and degrees believed to bring the greatest private return to the student (or parents) – either in future earning capacity, or in prestige, job security, or anything else valued in a profession or vocation. Thus in the world of private higher education, and in public higher education where tuition is permitted, tuition and associated fees for medical and other advanced health professional programmes are generally high, reflecting not only the greater instructional costs of such education, but the high market value of the degree (in turn reflecting the high income and high status associated with these professions). Also, as much of the world that was formerly dominated by Socialist/Marxist central economic planning has given way to private enterprise and market forces, the demand for higher education in economics, management, law, computer and information science, and the English language has risen greatly – and so, too, has the tuition in such programmes.

The establishment of a 'proper tuition' is made even more complicated by the

interaction and the inter-country variations between the two factors of (1) instructional costs and (2) the mix of public and private benefits. For example, it is conventionally thought that research, or 'classical', universities are more costly per-student than shorter-cycle, more vocationally-oriented, less research-intensive institutions, so that a common percentage of costs to be charged to students and their parents will generally yield a higher tuition in the classical, research university. However, although the presumably higher unit costs of the classical university may be true for medicine, it is probably not true for other programmes, such as law or business, which frequently have higher tuition, but which can be rather inexpensively delivered, at least at the first-degree level.

Higher tuition in the classical university is also reinforced by the notion that there is generally greater prestige – and thus greater private benefits and future income prospects – attached to a degree from a classical university (France, with its *grandes écoles*, being the conspicuous exception). In addition, the university student is more apt to be from a wealthier family, and thus likely to be both willing and able to pay a higher tuition. And if the student is not from a wealthy family, the greater private benefits and income prospects of the student should still be sufficient – in the economically rational world – to support student loans, and thus the payment of the higher tuition.

However, except for medical and related degrees, which continue to be associated with classical universities, most of the programmes that are coming under greatest demand in much of the world – economics, management, computer and information science, law, and the study of the English language – can be taught and learned just as (or more) easily in a non-university context. In fact, it can be argued that it is more likely to be the university student – more than the student at a short cycle non-university institution – who will more likely bring substantial public, as opposed to mainly private, benefits. Under this construction, it would be the *classical* university that needed (or deserved) greater public subsidy (and lower tuition) more than the non-university institution, which is more apt to be creating predominantly private benefits.

4. *The costs of student living* (especially room and board). These expenses are in large part a function of the degree to which it is possible to live at home – which, in turn, is a matter of the proximity of the college or university to the home, the availability of inexpensive transportation, and to some degree the 'culture' of the acceptability or non-acceptability of living with one's parents well into one's twenties. State policies in America, for example, generally aim at putting at least a community college within the commuting range of nearly every family (which in the US generally assumes automobile ownership). Clearly, this is not possible in the rural parts of most countries, where traditional college-going must assume living 'in residence'. But even where living with parents is possible, the general cultural acceptability may vary among countries, with such an arrangement allegedly being more acceptable, for example, in France than in England or Germany.

If the student cannot live at home, the cost of student living is most affected by the degree to which residence halls and/or canteens are publicly subsidised or

Table 2. Total Higher Education Costs Borne by Students and Parents (Various Countries, Academic Year 1999–2000, US Dollars)

Country	Public				Private			
	Tuition and Fees	Room and Board	Other Costs	Total Costs	Tuition and Fees	Food and Board	Other Costs	Total Costs
Australia[1]	3,760[2]	12,100	500	17,480	14,085	8,275	500	22,860
Austria	746	10,150	560	11,455	n.a.	n.a.	n.a.	n.a.
China[3]	2,591	5,181	415	8,187	4,145	6,736	518	11,399
Ethiopia	-	400	83	483	1,170	830	190	2,190
France[4]	656	6,528	993	8,177	11,685	8,450	993	21,128
Germany	203	10,151	505	10,859	n.a.	n.a.	n.a.	n.a.
Hong Kong	5,155	19,151	719	25,025	n.a.	n.a.	n.a.	n.a.
Japan[5]	3,013	9,205	410	12,628	5,822	9,205	492	15,579
Korea[6]	7,018	8,676	1,524	17,699	10,136	8,067	1,524	21,264
Mexico[7]	1,605	7,487	250	9,342	23,173	7,486	535	31,194
Netherlands	1,375	11,300	625	13,300	1,375	10,725	750	12,850
Norway	105	5,221	316	5,642	4,842	5,221	316	10,379
Russia[8]	-	797	-	797	4,221	4,946	398	9,564
Scotland[9]	727	8,944	1,527	11,197	n.a.	n.a.	n.a.	n.a.
Singapore	8,858	3,466	227	12,551	n.a.	n.a.	n.a.	n.a.
UK[10]	1,565	8,944	1,526	12,035	n.a.	n.a.	n.a.	n.a.
US[11]	6,000	9,000	900	15,900	23,000	10,500	800	34,300

Source: *Compiled by the Higher Education Finance and Accessibility Project, SUNY Buffalo Center for Comparative and Global Studies in Education. http://www.gse.buffalo.edu/org/IntHigherEdFinance*

[1] 2000–2001 charges for the Higher Education Contribution Scheme (HECS), which can be paid upfront with a 25% discount, or deferred and paid after graduation on an income contingent basis at zero real interest – i.e. linked to the prevailing rate of inflation – with the first payment due only after the borrower's annual income reaches a threshold level (A$22,346 year in summer 2001). Each income range has a repayment rate which increases with the borrower's salary. For fee-paying students, a BA program in 2001 was A$11,025.

[2] Band 3 courses including law, medicine, dentistry etc.

[3] From 1988–97, China had a 'dual track' tuition system. In 1997, all students began to be charged tuition

[4] Universities and state *grandes ecoles* estimate of fees only.

[5] Academic year 1998–99. Tuition at the national universities is determined by the Education Ministry and is uniform throughout the country.

[6] Academic year 2000–2001.

[7] The National Autonomous University of Mexico became famous for its students having forced the government to re-scind an attempt to raise tuition from the equivalent of about $.07 to about $70.00; however, elsewhere in Mexico, most public universities charge a modest tuition.

[8] Russia continues to guarantee free higher education to students admitted to the limited number of 'government places' on the basis of competitive exams; all others, since 1992, can be charged tuition. Nearly 50 percent of students by 2002 were tuition-paying, contributing more than one-fourth of university revenue.

[9] Scotland replaced the 'upfront' UK tuition with a mandatory contribution after graduation of £500 to the Scottish University Endowment Fund, repayable by an income contingent loan, the present value of which is about $727.

[10] The UK first imposed a uniform means-tested tuition in 1997 and has since replaced its once generous maintenance grants with loans.

[11] 2000–2001 estimates.

otherwise made accessible at minimum cost. The tradition of institutionally provided residence halls is a legacy of the British collegiate model of higher education, reinforced in those countries where university attendance was assumed to be properly free of any student or family-financial responsibility. But these residence halls can be spartan and crowded, as in China, where very low charges might even cover the very minimal real costs – or quite opulent, as in many US college and university dormitories, with air conditioning, private bedrooms, and extensive 'common spaces', in addition to the absence of any governmental subsidy, all of which can make living in a university dormitory in an urban area frequently *more* expensive than in surrounding low-cost, unsubsidised private housing. Table 2 shows the total combined expenses borne by students and parents for selected countries.

5. *Parental willingness to pay.* The willingness to make financial contributions (even sacrifices) to support the children's higher education may be a function of *culture* as well as *affluence*. This is not intended to ascribe special nobility to those cultures where parents typically make large sacrifices on behalf of their children's higher education. But the Swedish parent, for example, has become accustomed to paying very heavy taxes, but then enjoying the benefit of 'free' university education for their children, as well as the Scandinavian convention of students paying for their living costs through subsidised student loans; the imposition of tuition charges in Sweden could well be resisted, even by parents who by most measures could well afford the tuition. In contrast, the Chinese parent, who probably has only one child to begin with, and who has probably always placed a very high value on education (or else the child would not likely be in a position even to contemplate higher education), is apparently willing to make considerable personal financial sacrifices for their child to go to a university.[6]

Parents may be thought to be more willing to pay in countries with substantial private education, where people are more used to paying for the higher (and sometimes the secondary) education of their children. This seems to be the case in the US, where tuition at private colleges and universities may be in excess of $20,000 a year, and total expenses well in excess of $30,000, and where undergraduate residential tuition in the more expensive public universities can now be $4–5000 or more (having been rising more steeply than those in the private sector), and where total expenses in the public sector can easily reach $15,000 a year. However, the expected correlation of public and private sector tuition does not hold in international comparative analysis. Japan, Brazil, India, Korea, the Philippines, and other countries with established private higher education sectors still feature low or no-cost public classical universities. Furthermore, efforts to increase tuition in the public sector – even modestly, and even in light of the pronounced middle and upper income profiles of these advantaged student bodies – seem still to be met

[6] This observation was confirmed by conversations the author had with parents waiting outside the higher education entrance examination sites in Wuhan and Chongqiung in the summer of 1999, with Professor Shen Hong of Huazhong University.

with intense political opposition (as in the total shut down of the National Autonomous University of Mexico for most of 1999 over a government proposal to raise tuition from a few cents to approximately $70 per semester).

In America, parents have always faced a quite precisely calculated 'expected family contribution' (EFC). But a realistic *expected family contribution* cannot be derived simply from some *ex ante* rule of what parents at various income levels *ought* to pay, but from what they seem in fact willing to pay at a particular time in a particular culture. The EFC in the US has actually diminished in recent years. Some would say that this diminution reflects a growing middle class hedonism; others would say that the US Congress has pandered to middle and upper middle class tuition anxiety by legislatively excluding most of the EFC that used to stem from parental assets, principally home equity. The US case is further complicated by the large number of students from single parent homes where 'parental financial responsibility' is difficult to determine or enforce. Also, there are very many students in America who are both financially needy and academically marginal and otherwise ambivalent about higher education, but who have places in the open admission sectors of American higher education. Such students may say that they would decline to enrol or would drop out in the event of a large tuition increase. Or, they may attribute their dropping out to 'financial factors', but this may also be the most socially acceptable reason to profess – more so, for example, than factors like academic difficulty, boredom, loss of interest, or their parents' unwillingness to pay what other similarly-situated parents might pay willingly. In short, parental willingness to pay, like student willingness to incur indebtedness, is probably substantially culturally determined, and may further differ by social class or family income – but with the true effect of the strictly financial factors associated with cost sharing being embedded within other factors and difficult to identify precisely.

6. *Possibilities for student summertime and term-time employment.* Working one's way through college is part of the American myth – and is still substantially true [Stern and Nakata, 1991]. The US student who claims 'financial need' is expected to earn and save at least $1500 during the summers. He or she is also expected to hold down a part-time job, generally about 10 hours a week, for approximately $2000. However, many American students hold jobs requiring from 20 to 40 hours a week – all the while supposedly enrolled as 'full time' (although in fact frequently taking more than the standard four years to complete a degree). But the ability of student summer and term-time employment to contribute substantially toward cost sharing is a function of at least four factors that may be especially prevalent in the US: (1) a culture of acceptance – even expectation – of part-time youth employment, even among affluent families where such employment is not essential to the family's financial well being; (2) a generally robust economy with an abundance of part-time, unskilled, low-paying but readily available jobs; (3) the encouragement and financial assistance of the Federal Work-Study Program, which partially subsidises college and some community jobs for needy students; and (4) collegiate standards (low compared to most countries) and an academic calendar (including extensive

evening classes) that allows and even encourages part-time study and 'stopping out'. Taken together, these economic, cultural, and structural features combine to allow substantial cost sharing by the student from part-time and summer employment. However, these features may be largely absent in many countries, and seem to be especially absent in those countries that are experiencing the greatest need to supplement governmental revenue. But the non-availability of student employment then puts more pressure on grants and loans – to which we next turn.

7. The general availability and sufficiency of 'need-based' or 'means-tested' grants and subsidised loans. In theory, a 'need-based' grant, increasingly in conjunction with a student loan, substitutes for the missing parental contribution from the low-income family. By 'generally available', we mean that a student otherwise interested in and admissible to higher or post-secondary education would be entitled to a grant or subsidised loan because of his or her family's low income, or similarly would not be precluded from borrowing by the absence of family collateral or creditworthy parents. Grants and loans not generally available are by definition *rationed*, usually by criteria of academic merit or preparedness, having nothing to do with the ability of the family to provide financial support. The US Pell grants, the former British mandatory grants, the French *bourse sociale*, and the German BAföG, are examples of governmentally-provided student financial assistance to which a student is entitled simply by being accepted to a university, being from a low income family, and generally maintaining some minimum academic standard or progress toward the degree. Because academic merit or preparedness, at least as conventionally measured, is strongly correlated with socio-economic status, the more 'merit' figures into the awarding of grants and subsidised loans – much of which (to the upper-middle class) is likely to have little or no impact on the student's enrolment decision – the less there is likely to be available for low-income students, and the more the imposition of tuition is thus likely to be a barrier to higher educational participation.

'Sufficiency' refers to the ability of the need-based grant or loan subsidies to truly compensate for the low income of the family. 'Sufficiency' is a function of the maximum grant or loan subsidy (i.e. the amount to which the children of the lowest income families would be entitled) and the degree to which that amount can truly compensate for the unavailability of parental contributions. In its most generous formulation, a grant-loan combination is 'sufficient' to the degree to which it can bring within financial reach of the lowest income family the best higher education to which the student would be otherwise entitled. In its minimum formulation, a grant-loan combination might be deemed 'sufficient' if it at least brought the least expensive higher educational alternative (probably a short cycle, non-university form) within reach of those students able to live at home and perhaps also work part time (or even full time) and attend college only part time.

'Sufficiency' is also a function of the relationship of the grant (or the grant/loan combination) to varying family incomes. This relationship is established by the (low income) point at which the maximum grant begins to be diminished (under the expectation that the family can now begin contributing at least something) and the rate

Table 3. Range of College and University Costs Borne by Students and Parents (First Degree Various Countries, Academic Year 1999–2000, national currency and US Dollars)

Country	Public		Private	
	High Estimate	*Low Estimate*	*High Estimate*	*Low Estimate*
Australia[1]	A$22.910 [$17.480]	A$9.445 [$7.215]	A$29.950 [$22.860]	A$15.784 [$12.040]
Austria[2]	ATS153.500 [$11.455]	ATS46.000 [$3.433]	Not applicable	Not applicable
China	A15.800 [$8.187]	A4.300 [$2.228]	A22.000 [$11.399]	A7.500 [$3.886]
Ethiopia	Birr 725 [$483]	Birr 50 [$33]	Not applicable	Birr 3.275 [$2.190]
France	FFr. 54.211 [$8.177]	FFr. 27.562 [$4.157]	FFr. 140.080 [$21.128]	FFr. 76.638 [$11.559]
Germany	DM21.502 [$10.859]	DM8.481 [$4.283]	Not applicable	Not applicable
Hong Kong	HK$208.704 [$25.025]	HK$85.496 [$10.251]	Not applicable	Not applicable
Japan[3]	A2.341.500 [$14.500]	A1.356.800 [$8.427]	A3.057.790 [$18.992]	A1.813.650 [$11.265]
Korea[4]	W11.611.000 [$17.699]	W2.611.000 [$3.980]	W13.949.000 [$21.264]	W5.868.000 [$8.945]
Mexico	MNP52.650 ($9.385)	MNP8.600 ($1.533)	MNP175.000 ($31.194)	MNP90.000 ($16.045)
Netherlands[5]	NLG26.600 [$13.300]	NLG14.100 [$7.050]	NLG25.700 [$12.850]	Not applicable
Norway	Nok53.600 [$5.642]	Nok17.450 [$1.837]	Nok98.600 ($10.379)	Nok69.100 ($7.274)
Russia	R259.980 [$18.142]	R12.859 [$898	R137.045 [$9.564]	R46.456 [$3.242]
Scotland	L7.334 [$11.197]	L3.490 [$5.328]	Not applicable	Not applicable
Singapore	S$22.090 [$12.551]	S$4.540 [$2.580]	Not applicable	Not applicable
United Kingdom	L9.625 [$14.694]	L3.014 [$4.601]	Not applicable	Not applicable
United States[6]	$15.900	$6.900	$34.300	$24.000

Source: *Information from the Higher Education Finance and Accessibility Project, SUNY Buffalo Center for Comparative and Global Studies in Education. http://www.gse.buffalo.edu/org/IntHigherEdFinance*

[1] 2000–2001.

[2] 2001–2002.

[3] Academic year 1998–99. Tuition at the national universities is determined by the Education Ministry and is uniform throughout the country.

[4] Academic year 2000–2001.

[5] Academic year 1999–2000.

[6] 2000–2001 tuition estimates.

at which further increments to family income are effectively 'taxed' through higher expected family contributions and further reductions in the need-based grant. Obviously, the more generally available the grant (that is, the more it is based on income alone, without further rationing by some measure of 'merit'), and the more sufficient the grant (that is, the more generous the grant, or the grant/loan combination, in making possible the most costly alternative to which the student would be academically entitled), and the more realistic the expected parental contribution (in the sense of phasing out the grant and phasing in the expected contribution at a level and rate that most families are able to meet), the more the need-based grant-loan system will be able to compensate for enrolment-limiting effects of tuition.

In summary, in order to answer the question of what tuition should be – or what the total expense burden borne by the student and family should be – a consideration of all of these factors is required. One can expect to find a very considerable expense burden – in the range of US$ 20,000–30,000 – in the presence of very high tuition, as in the case of a high quality private higher education with little or no public support of basic instructional costs, and no 'price discounts' or grant assistance, and living away from home in conditions not unlike one's employed, non-student-age peers. The lowest financial burdens upon students and parents may be found in some combination of low or zero tuition[7] and the opportunity to live at home. Many countries, as shown in Table 3, have a considerable range of total costs/expenses borne by the student and parent *before financial assistance in the form of either grants or loans.*

Grants versus loans

In so far as financial assistance is to compensate for low family income and bring higher education within reach of any student of requisite ability, regardless of his or her family's income, either grants (non-repayable) or loans (repayable by the student, parent, business enterprise, or taxpayer) should suffice – providing that students are willing to borrow, and that banks or other savings institutions are willing to lend to them. Students would presumably always prefer that their assistance be non-repayable – that is, in the form of grants, in addition to no or very low tuition, subsidised room and board, and strongly subsidised loans that are really 'near grants'. However, in so far as the rationale for the combination of tuition, unsubsidised student living arrangements, and accompanying student financial assistance is avowedly to shift costs from governments and taxpayers to students and parents, then the more this student assistance can take the form of a 'true' (that is, unsubsidised or minimally subsidised) loan, the more effectively all of the rationales dis-

[7] Very low tuition is sometimes equated with 'public' higher education, but there can in theory be publicly-owned and privately-owned institutions with high or low tuition, depending partly on the underlying instructional costs, but mainly on the degree of public subsidisation of these underlying costs.

cussed earlier can be met. That is, it is loans (or other versions of deferred payments, like graduate taxes) more than governmentally provided grants that:

1. relieve the government, and thus the public sector generally, of some of the burden of the high and rising costs of higher education and (at least theoretically) provide more revenue to the university;

2. promote equity by allowing the costs of higher education to be shared between the public, reflecting the not inconsiderable public benefits of higher education, and the family, reflecting the also considerable private benefits to both the student and the family;

3. engage the forces of the market to enhance both the efficiency and the responsiveness of the university.

However, in order to relieve the public treasury and truly shift the cost burden to the student and parent, the loans must be repaid – and at something at least near the generally prevailing rate of interest. This is as true for 'contingent repayment' or 'income contingent' loans, such as those employed in Sweden and available in the US, as for conventional 'mortgage type' loans [Johnstone 1972, 1986; Woodhall, 1988, 1989; Ziderman and Albrecht 1995]. It is also true of other forms of deferred payment where the student presumably bears a share of the higher educational cost burden, but only repays in the future, over time, and only as long as he or she is gainfully employed. Such repayment schemes include the so-called graduate tax (often advocated, but never fully implemented; see Barr, 1989), the 'income surtax' repayment employed in Australia through the Higher Education Contribution Scheme (HECS), and the 'drawdown' of governmental pension payments employed in Ghana to repay the student loan fund. In all of these repayment schemes, the present discounted value of the stream of future payments (or of income surtax payments, or of foregone pension fund contributions) must equal the original value of the loan, or of any forgiven tuition, for the cost burden truly to have been shifted to the student. To the extent that loan repayments are 'lost' through high defaults, lost tax records, emigration or simple disappearance, subsidised interest rates, or excessively high governmentally-borne costs of collection and servicing, the loan does not really shift the costs, and can be more accurately characterised as a 'near' or 'effective' grant – and generally a rather inefficient and politically costly one at that!

Access and participation: cost sharing and enrolment behaviour

Countries differ in the percentage of the traditional tertiary education age cohort that actually goes on to various forms of higher or post-secondary education. Since there are substantially differing private benefits attached to these different forms, it 'matters', for example, whether students choose, are able to elect, are tracked into, or are restricted from:

- any tertiary level education;
- only a short-cycle, minimum status, non-selective form of post-secondary education;

- a selective, prestigious, classical university;
- or even beyond, to the most selective and prestigious university programmes, such as medicine or law or advanced study toward a Ph.D.

Clearly, there are fewer and fewer students at the more advanced and selective end of this higher educational pipeline. That is, some students are somehow selected or otherwise admitted into - while others are somehow screened or selected out of - the more advanced, remunerative, and 'selective' levels or stages of higher education. The question most commonly identified with higher education's 'accessibility' is the degree to which this selection, 'screening', or 'narrowing of the pipeline' is a function of factors considered in most societies and cultures to be politically or ideologically acceptable or unacceptable. The principal 'acceptable' factors, or correlates, would be genuinely innate intelligence or talent, or interest (especially interest that is itself a function more of something innate than of environment or culture).

Factors generally considered 'unacceptable' - and therefore, if possible, have their association with 'access' lessened by policy - would be, for example: (a) low income or low social status of the parents; (b) region (especially being from a rural or remote area); (c) race, religion, or ethnicity; or (d) gender (although this may be a more culturally contested correlate).

In this construction, then, higher educational accessibility may be seen as a policy goal, more or less common to most countries, realised to the degree to which the principal correlates with higher educational participation - as well as to participation within the more prestigious or selective forms or levels of higher education - are mainly interest, ability, and talent, and conversely are not family income or status, race or ethnicity, gender, or region or rural/urban location.

There exists in virtually all countries a substantial underlying association between low higher educational participation and the above-mentioned unacceptable correlates, particularly family income and status, race and ethnicity, rural or remote location, and at least in many developing countries, gender. The true causation that diminishes the probability of higher educational participation may be subtle and complex, and may have done its work long before the end of secondary schooling, when more fortunate young people and their parents are making decisions to partake of higher education. High income-high status families are apt to place more emphasis early in a child's life on education. They are likely to have more books in the house, to take more of an interest in their children's education, and to be able to afford (or live where there exist) better middle and secondary schools - all in order to better prepare their children for university entrance. In most countries, the correlation between higher educational participation with family income, status, and other 'unacceptable correlates'[8] is well established before the completion of secondary school. Therefore, a reasonable goal for cost sharing might be to be able

[8] Daniel Levy has observed that these correlates, however 'unacceptable', are nonetheless virtually unavoidable; thus 'lamentable' might be a more useful descriptor.

to pass some element of costs on to students and parents without further accentuating the 'unacceptable correlates' to higher educational participation of high family income, urban location, and dominant ethnicity or language.

Accordingly, an investigation of the connection between cost sharing and accessibility must examine the effect that greater higher educational costs passed on to students and families (probably in the form of higher tuition, or the implementation of tuition where it did not previously exist, or the reduction of student living subsidies) have on:

- the decision to apply to and matriculate in any institution of higher education;
- the decision to apply to or matriculate in a particular form (for example, a university or a less selective non-university) or a particular programme (for example, medicine, law, engineering, or humanities) in higher or post-secondary education;
- the likelihood of degree completion;
- the likelihood of going on to more advanced (and more prestigious and/or remunerative) levels of higher education.

The empirical research on the effect of both tuition and need-based financial assistance on student enrolment behaviour is mainly econometric analyses – either cross-sectional or time series – of enrolment and persistence of US students in response to differing state tuition policies [Leslie and Brinkman 1989; Kane 1995; Heller 1999]. This research supports the conventional wisdom that net price – that is, the combined effect of tuition discounted by financial aid – has little effect on middle and upper-middle income students. However, it can have a measurably discouraging impact on low-income youth, an impact that is only partly offset by increasing need-based aid.

Significantly, there are factors in the US that may serve to blunt the impact of rising tuition on enrolment behaviour, or at least diminish the likelihood that the effect will be an outright denial of accessibility.[9] Among these factors are:

- the very great number of open-access two year colleges within commuting range of most US homes, successful completion of which (even partial completion, or passing only several courses) is generally transferable, or applicable toward a four-year degree;
- a similar widespread availability of many virtually open-admission four-year colleges, both public and private;
- the peculiarly American 'degree-by-credit-accumulation', or 'modular' system that makes possible easy 'stopping out' (for example, to earn and save money), or transfer from an expensive residential college to a less expensive alternative within the commuting range from home;

[9] Interestingly, the very openness and already very high participation in US higher education may, other things being equal, actually accentuate the dampening effect of tuition increases on higher educational participation because of the large numbers of students who are essentially ambivalent about their higher education, and who may be 'trying it out' as long as the debt loads or the burdens on the parents are not too great.

- an economy with abundant part-time employment possibilities;
- the general availability of need-based grants and student (without any test of either student or family credit).

The effect of these factors is to cushion the impact of increasing tuition, and to present alternatives to not matriculating at all, or to dropping out altogether, in response to an increase in the cost to be borne by the student or family. It is in countries where such factors do not exist – that is, where the two-year alternative is not transferable to a four-year or advanced degree, or where there are no easily accessible higher educational alternatives within commuting range from home, or no generally available student loans, or no practical part-time student employment opportunities – that a sharp rise in tuition or other expenses borne by the student or parent can be assumed to be more likely to preclude higher educational participation altogether.

In the end, we know very little still about the impact on higher educational accessibility of the increasing shift of higher educational costs, worldwide, from governments and taxpayers to student and parents. We know that the shift is happening, and we know that most governments officially espouse a concern for the maintenance (or probably the enhancement) of higher educational accessibility. What we do not know, at least not yet from systematic empirical study, is the impact on university enrolment behaviour (or higher educational participation generally) of increasing cost sharing. Nor, even more importantly, do we know from empirical study the ameliorative efficacy of the common access policies such as means tested grants, loans, or enhanced student employment opportunities.

The worldwide trend toward some greater cost sharing – i.e. increasing tuition and diminishing levels of public subsidies, at least to non-needy students – seems inevitable. The inevitability does not reflect any triumph of World Bank policies, nor of market capitalism, and would not necessarily be the preference of many thoughtful analysts who believe in markets but who also see many problems in the increasing privatisation of higher education. But there seems to be no escape from the conclusions that: (1) higher education in the future will need vast additional resources, particularly in the developing countries; and (2) the only alternative to more of the burden being shifted to parents and students is for there to be very large increases in taxes, progressively raised.

Herein lie the two problems that above all undergird the likelihood of a continued shift of higher-education costs from governments and taxpayers to students and parents. The first is that substantial increases in progressive taxes – that is, taxes that fall proportionately more heavily on the rich, and thus are levied mainly on income and wealth – are exceedingly difficult to collect (mainly because they are so easy to escape). The second problem with relying on massive tax increases (progressive or otherwise) to avoid the need for greater higher-education cost sharing is that higher education is simply not at the front of the queue, even if taxes were to be significantly and successfully increased. Elementary and secondary education, public health and sanitation, environmental restoration and preservation, housing and other public infrastructure, and a social safety net for the elderly, the unem-

ployed and the unemployable are almost certainly ahead of higher education in most countries. Without some additional cost sharing, it is almost certain that enrolments will be restricted, and/or the higher education that is available to the masses and still 'free' will be of increasingly lower quality.

Higher education needs to continue to claim public resources – and more of them. But it also seems incumbent on those who can influence public policy to work toward the construction of less costly forms of higher education and also toward the kinds of financial assistance and loan programs that can combine significant cost recovery with protection to those whose participation in higher education is most at risk from the inevitable need to share in the costs.

D. Bruce Johnstone *is University Professor of Higher and Comparative Education, Director of the Center for Comparative and Global Studies in Education, and Director of the International Comparative Higher Education Finance and Accessibility Project at the State University of New York at Buffalo.*

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Considerations for Higher Education Systems in Post-Communist Societies: A Current Look at Czech Higher Education

BILL WELDON*
Charles University, Prague

Abstract: The current state of Czech higher education can only be understood in the context of the overall state of education and the Czech nation. It could best be described at this time as being in a state of flux. The conditions deserving scholarly attention are centred on several themes. There are issues of concern in the areas of curriculum design, particularly the ideas for the integration of the Academy of Sciences and the university, public and private education, secondary and tertiary education, and within the tertiary level itself. Other important issues include instructional methods in the classrooms of higher education, the accessibility of the tertiary education system, the funding of institutions of higher education, the Czech Republic's entry into the European Union, and the issue of educational leadership.
Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3: 375–392

Introduction

Languishing in the aftermath of forty years under communism, the status of Czech education has been described as confused and in a state of flux. The communist past has deeply influenced higher education in the Czech Republic and its grip upon principle and practice has been stronger than many of the educators who were interviewed in this study had thought.

Curriculum and instruction need to be modernised and educational policy, structure, and leadership need to be reformed. However, the lack of educational funding puts the outcomes of any serious attempts at reform in serious doubt.

Education is intimately tied to culture. One of the first questions to be addressed in education is *what is its purpose*. The answer to this question sets all programmes, funding and assessment in place. What is the purpose of education in the Czech Republic? Is it to prepare people for the workplace? Is it to acculturate people? Is it to teach people the country's language? Is it to teach social skills? Is the purpose of education to create life-long learners? Does the purpose of education include all of the aforementioned goals?

* Direct all correspondence to: Bill Weldon, PhD., e-mail: bill@wlwldon.com

Before an effective system of education can be achieved, the question *where is the society going* must be fully addressed and answered, as it no doubt has been in the Czech Republic. Therefore, the current state of Czech higher education can only be understood in the context of the overall state of education and the nation.

Czech higher education needs a champion. Within it there exists an apparent ambiguity of leadership. Leadership by committee, like a Rectors Conference, or leadership by influence, like some individual educators, is muddled in a confusion based on a lack of clearly defined leadership principles.

The future of the Czech Republic includes entry into the European Union (EU). There will be a need for a more global contextualisation of effective, efficient higher education. A nation like the Czech Republic cannot survive in isolation, and neither can the EU. The world of today is a global economy, where commerce, culture and communications are so integrated that knowledge accessibility is critical to successful national economies. Entry into the EU will most likely be a great boon to the Czech Republic. The potential for an integrated, mutually beneficial relationship should be an encouragement to the Czech citizenry.

Changes are needed in the higher education system, some of them immediate, and others that need more time to be accomplished. Often it is heard that the educational concepts of forty years of communism cannot be easily turned around. True, but there must be some validity to the fact that thirteen years have passed since the end of the communist era in the Czech Republic, and in comparison this era has hardly accomplished what the communists were able to accomplish in their first thirteen years. Totalitarian repressive regimes may be highly effective in implementing change; however, the change is not based on the will of the populace but rather on what the *perceived* needs of a collective state are.

As Machiavelli noted, "... it ought to be remembered that there is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions and lukewarm defenders in those who may do well under the new."[1]

Considerations, methodology, and delimitations

Why should any non-Czech write an article on Czech higher education? Sometimes, insights from people outside the system can add information valuable to those who work within the system and who are charged with the responsibility of managing its day-to-day outcomes. Often an outside voice, unfamiliar with the history, politics, and personalities of a particular area, can add, in a somewhat removed way, perceptions unlikely to be seen by those within it. An understanding not perceived to

[1] *The Prince* by Niccolo Machiavelli, Chapter 6.

Table 1. People interviewed

1	Beneš, Josef	Director of Higher Education – Ministry of Education
2	Hošek, Pavel	Acting Academic Dean at the Evangelical Theological Seminary in Prague
3.	Hoza, Ignác	Rector – Military University of the Ground Forces in Vyškov Czech Republic
4.	Jařab, Josef	Former rector at Palacky University in Olomouc, former Rector of the CEU in Budapest, and currently a Czech senator
5.	Jirák, Jan	Pro-Dean – Social Sciences Faculty in Prague
6.	Kotásek, Jiří	Former head of the Institute for Research and Development of Education and an expert on Czech higher education as a part of comparative educational systems
7.	Kymlová, Hanka	Fourth year student at the Institute of Chemical Technology
8.	Matějů, Petr	Institute of Sociology, Academy of Sciences of the Czech Republic and Vice-President for Research, the Anglo-American Institute for Liberal Studies, Prague
9.	Pehe, Jiří	Director – New York University – Prague
10.	Raus, Pavel	Clinical Psychology – Head of an NGO
11.	Ripková, Hanka	Director of the Fulbright Commission in the Czech Republic
12.	Šebková, Helena	Director – Center for Higher Education Studies
13.	Sokol, Jan	Dean – Faculty of Humanistic Studies – Charles University
14.	Spilková, Vladimíra	Department Chair, early childhood and elementary education – Charles University
15.	Stránský, Martin	Editor of *The New Presence* a top magazine on Central European Affairs
16.	Walterová, Eliška	Director – The Institute for Research and Development of Education
17.	Wilhelm, Ivan	Rector – Charles University
18.	Young, Mitchell	Vice-President for Academic Affairs – the Anglo-American Institute for Liberal Studies, Prague
19.	Zieleniecová, Pavla	Director, Institute for Information on Education
20.	Zlatuška, Jiří	Rector – Masaryk University in Brno – currently a Czech senator

be based on reality could be quickly ignored. Yet, an educational researcher can often see the educational problems more clearly than those who face them daily.

Twenty interviews were conducted over a period between October 2002 and February 2003. Eight questions were asked of various educators who had agreed to an interview (See Table 1).

Table 2. The interview questions on Czech higher education

1	In your words, describe the current state of higher education in the Czech Republic.
2	What has caused this to happen?
3	Who are the educational leaders (formal and informal) in the Czech Republic?
4	How will the Czech Republic's inevitable entry into the EU affect Czech Higher Education?
5	What three things should be done NOW to improve Higher Education in the Czech Republic?
6	What are two long-range ideas for the improvement in Higher Education?
7	Can I use your name and/or position in the article? If so how?
8	What other questions would you ask that I did not ask and how would you answer them?

The average length of an interview was one and a half hours. All interviews were conducted in English and on only one occasion was an interpreter used. All persons interviewed were informed of the intent of the interview, that being to collect information with the purpose of writing an article on Czech higher education. While most of those interviewed were from Prague, 24% were from other locations in the Czech Republic.

Some natural limitations occurred in the research. Language was a problem, as nuances could not be fully comprehended. Czech academic language and jargon limited comprehension within the context of the interview itself. All other information was accessible in English. Referrals were used as the interviewees were asked to identify leaders in Czech higher education.

A current look at Czech higher education and the issues it evokes

While the interviewees expressed different opinions of the state of higher education in the Czech Republic, one common theme emerged: Czech higher education is not in a positive state. Responses to the question, 'In your own words describe the current state of higher education in the Czech Republic', brought forth a variety of responses.

In the responses, concerns were expressed over the process or rate of change: "...even with the reforms of the last ten years, the system is far from being reformed sufficiently" (Kotásek); "...very old but change is occurring ever so slowly" (Hoza); "Too many remnants from the Communist past – expected change to be more rapid" (Zlatuška); "...state of flux with everyone having expected the speed of changes to be much faster" (Ripková); "...it is larger but not improved/ it is still not a priority" (Jařab); and "...not enough change has been made" (Zieleniecová).

There were also comments that reflected a neither positive nor negative state, but merely offered an observation of higher education's current condition. Such were the comments of Sokol, "it is growing slowly," Kotásek, "...not as broad as in the West," and Pehe, "it is in a state of flux".

One other response seemed worthy of special consideration. Šebková noted, "Czech Republic higher education should be careful not to be blinded by pride.... We should be thinking balance and looking for harmonisation and convergence.... Compared to other EU countries Czechs are okay". Harmony and convergence would always be preferable to discord and divergence, but how does one achieve these two elusive concepts? Are Czechs okay compared to other EU countries?

Some ideas to consider are:

A. The tertiary educational system needs to be restructured or renovated. After a review of the system, a comparative study presenting an impartial view, the government should then make education a priority.
B. There seems to be a problematic 'disconnection' in the Czech higher education system. One solution offered is to 'connect the dots' and see the big picture (Hoza). This implies, at the least, that the component parts for a successful, efficient system may be present, but no one appears to be looking at the system as a whole.

Issues of curriculum

There are many issues concerning a structured degree approach to curriculum. Historically, a mindset exists in the Czech Republic that the master's degree is the terminal degree. Anything less than a *magistr* is not considered acceptable. As tertiary education is not paid for by the students but rather by the state, students that have been able to gain entrance into study have developed a view of 'no personal ownership' in the acquisition of the degree. The suppositional basis from which this works is that the state pays for the education of the students and then the students in turn work in jobs that are beneficial to the state and the society. Degree programmes and curriculum were established to meet this suppositional goal, which was an underlying principal stemming from the Soviet educational system.

Changing an educational structure can be done through legislation, but changing the mindset of a culture is more difficult. The bachelor's degree will not be accepted in the culture until a valid reason for its existence has been established. This validation should come from the business community, where most university graduates go after finishing their tertiary degree. The question needs to be asked, are those students who are graduating from Czech tertiary education with a bachelor's degree capable of active participation in the Czech labour market? In addition, are the students with a master's degree performing in the same labour market at a level appreciably superior to the students with a bachelor's degree, so that the need for the former is substantially preferable to the latter? Furthermore, at what point is the

cost to the state for the producing a student with a master's degree readily demonstrated in a difference between the productive output value of one who holds a master's rather than a bachelor's degree?

The integration of Czech higher education into the EU system, as set out in the Bologna Declaration,[2] clearly establishes the need for and insistence upon a three-level tertiary system. The Czech higher education law of 1998 is in alignment with that concept.

The tertiary degree process becomes a 3+2+3 design and conforms to most tertiary systems of education. The 3+2 design was seen as important by a number of the educators who were interviewed (Hoza, Šebková, Spilková, Sokol, Wilhelm); they also recognised the importance of the bachelor's degree as a practical way to address the problem of access to the tertiary system. Wilhelm alluded to this when he stated, "We need to finalise the structure of the three degrees towards accessibility for a larger number of students." Sokol was more specific when he stated, "Push more to the division of study of 3+2 and have more students in bachelor's programmes."

The current distribution of students in tertiary education reveals that 17% are enrolled in bachelor's degree programmes, 5% in a 'short' master's programme (after Bc), 71% in a 'long' master's programme, and 7% in PhD programmes.[3] The ideal would be more along the lines of 70% enrolled in the bachelor's, 25% in the different master's programmes and 5% in PhD programmes. (Beneš)

While there has been movement towards more bachelor's programmes, the process is taking much too long. There needs to be a reckoning that will establish the bachelor's as a terminal degree. Resources should be put behind this idea and businesses need to be consulted or involved in the process of determining the goals and objectives of the bachelor's degree. The quality of the product should be adequate to meet the needs of the labour force.

Since the concept of the university is to prepare a person for life and work, a renovation or rethinking of the concept of the bachelor's, the master's, and the doctoral degree would seem to be in order. However, simply setting this idea into the curriculum will not lead to its acceptance until the recipients, the culture, and the labour force see the value in this type of degree structure. The problem seems to be one of presenting and showing the value of the product and not assuming the acceptance of the idea simply because it was deemed important by the state.

An alternative to the current degree programme could be to view the bachelor's degree as a step in the process of the long master's degree programme, in which an option point would be inserted allowing a student to leave the university when the bachelor's qualifications were met. This would permit progression into a master's and/or doctoral programme, but would also allow for an alternative that is

[2] http://europa.eu.int/comm/education/socrates/erasmus/bologna.pdf

[3] Seminar at Charles University – Hanka Ripková – 14 November 2002.

currently not available to students who do not wish to continue beyond the level of a bachelor's degree.

An even more radical approach would be a long master's degree, with an Associate of Arts degree built into the process, at the end of one and one-half years, for those who did not, or could not, continue on for another one and one-half years. At the end of the third year, for those who did not or could not continue on for another two years, a bachelor's degree would be awarded. An additional two years would then lead to a master's degree.

Issues of curriculum development

One theme concerning curriculum development is the need for an effective, language-based programme to prepare the Czech Republic for its entry into the EU and to bring it up to par with other excellent educational systems. For the Czech Republic to meet the EU requirements and establish a system with permeability, there must be a common language base. Czech is not a common international language, so for study in the Czech Republic another major language of instruction is required. The most common language of international instruction in the EU is English, but too few courses are taught in English in the current tertiary structure in the Czech Republic.

Wilhelm, Kotásek and Spilková noted that knowledge of languages was particularly important for studying internationally and that the language programmes in the Czech Republic are not strong. For studying abroad, English seemed to be the most practical language, but German was also noted as important (Kotásek). Šebková noted that there is an international advantage gained by language, while Ripková observed, "living in a society with a unique language limits and will always limit the influx as well as the egress". Therefore, unless a more common language of educational interchange is established in the Czech Republic, it will be very difficult for Czech students studying abroad to succeed with distinction.

A lack of certain characteristics common to educational systems considered to be advanced was also noted; for example, the weakness of programmes in the social sciences, arts, and humanities. This is of particular concern, as one of the most attractive features capable of drawing exchange students to the Czech Republic is the country's arts, humanities, and architecture. Pehe indicating another example, stating, "students are not being educated to fit into the global economy". Thus, a question that needs to be addressed is how to integrate 'Czech-ness' into a global economy without losing the attributes of being Czech, rather than establishing the reality of being a Czech and then showing how different that is from everyone else.

Other common curricula absent in Czech tertiary education are a moral-based education, cultural diversity and problem-solving skills. Potential growth limitations exist due to the lack of professional training in general didactics and curriculum development. To a certain degree, this could be predictable, as a lack of funds

for education has been a hallmark of the Czech government.[4] It takes financial resources to support faculty travel to conferences, to provide high-tech equipment capable of searching the web, to purchase adequate personal professional libraries, and to subscribe to professional journals.

Over the past few decades, an interactive curriculum has been favoured internationally over the older style of curriculum that depends on a lecturer speaking to a group of passive students. The image of the professor standing aloof from the class, where a student dare not ask a question or even approach a professor, has long since disappeared in the West. The labour market of today seeks men and women who have interactive skills, as well as an adequate knowledge base. The '*how* to work with people' is just as important as the '*what* I know about my job'. In addition to an adequate knowledge base, today's educated person needs the skills of observation, integration, correlation, and application. Being passive recipients of cognitive data will not adequately prepare today's young people for a global economy that requires integrative market skills. Today's curriculum needs to allow students to apply the knowledge they gain and not just to regurgitate words on paper tests in classrooms.

In addition to reforming academic curricula, there is a need to structure a strong and visible curriculum for life-long learners. This is important not only because it is a goal of the EU, but also because it is a noble goal of any educational system. Life-long learning should be a major theme in future curriculum development. Wilhelm noted, "It is hard to convince people that change is needed". Among the 4000 teachers at Charles University, the average age of a faculty member is fifty-nine (Wilhelm). That has a profound influence on curriculum development!

Consequently, it would be worth considering the idea of both faculty members and students being given an opportunity to increase the quality of their education with a programme of effective didactics, including a thorough understanding of curriculum, design, integration, alignment and evaluation at the tertiary level.

Instructional issues in the curriculum

Students learn best when they are actively involved in the learning process. Students instructed by the lecture method are denied the opportunity to become actively involved in learning. More independence is needed for students to explore their own best learning acquisition mode and in so doing to become actively involved in higher-order thinking skills, as well as actively participating in research to increase research skills and developing practical skills for use in the business community.

Little academic work is done in the higher domains of learning (application, analysis, synthesis and evaluation), and most of the work is concentrated in the lower levels of cognition (knowledge and comprehension). Often, students only think

[4] The Czech Republic trails OECD countries in education spending. *Prague Business Journal*, 13 February, 2003.

to memorise and pass exams. There is no feedback, such as evaluations by the students and peer observations, for establishing the professional accountability of professors in terms of their instructional methods.

Professors are experts in cognition. Yet, knowledge is considered the *lowest* level of cognitive learning. How are professors doing at teaching comprehension, application, analysis, synthesis and evaluation – the higher levels of the cognitive domain? What is being done with interactive teaching techniques? Research indicates that students learn best when they are actively involved in the learning process but the interviews showed that the passive learning style is the dominant mode of instruction at the tertiary level.

As a step toward the reconstruction of the Czech higher education system, a series of seminars should be offered to the instructors in higher education and a certificate awarded to those who attend six sessions; two sessions on how people learn, two on effective teaching and two on curriculum and design. An evaluation of instructors by students, peers and professional educators should be established (triangulation assessment). Professors who do not pass the triangulation assessment at a predetermined level of acceptance would be required to go through special training until they pass with minimum efficiency.

Student access to tertiary education

One of the salient issues addressed in the interviews was that of the accessibility of tertiary education. Matějů noted that the tertiary level of education is not open at entry point: "The system does not accommodate more than 50% of those who apply even when they pass the entrance exam with a reasonable score." (Matějů) This was also noted by Sokol and others. Because each individual faculty prepares its own entrance exams, there is no standard exam preparation, administration or assessment. This perhaps could place the university in an unfavourable light; one must trust in the total integrity of each faculty, since there are no apparent checks and balances in the system.

There needs to be accessibility for at least 70% of the students who apply, while now only 50% of those who qualify can get into the system (Kotásek). However, a larger number of students could be accommodated if the three-level degree programme were finalised and implemented (Wilhelm). One way of easing access to tertiary education would be to allow liberal laws concerning private colleges and universities. Since there are no current tuition fees in place at public institutions, and since private schools must charge large fees to remain solvent, private institutions could be a beneficial help by offering a certain degree of accessibility.

While the university structure has grown since 1989, the proportion of students accepted from among all applicants has not progressed proportionally; it has remained quite stable at about 50%, though the number of students almost doubled between 1989 and 2002. The demand for university education grew much faster

than the offer of educational opportunities (Matějů). Limitation to growth can be seen owing in part to the weakness of the Czech economy (Sokol). Growth has been slow but also consistent; therefore, access has been slow. Perhaps one statement can summarise this issue in tertiary education: "We need to make higher education more accessible to more students in the Czech Republic" (Šebková).

What should the entrance requirements be for students seeking tertiary education in the Czech Republic? This is a part of the overall question of accessibility. Since education is free as long as a student stays in school, there is a degree to which entrance to each level can hold special rewards and be viewed as a rite-of-passage. What is the best way to assess the potential for the success of those students who apply to go on to the tertiary level?

The concept of entrance exams for higher institutions with a higher number of applicants calls for the use of very selective procedures, and tests examining the quality of knowledge rather than the experience and grades in secondary education (Spilková). Perhaps of equal importance is not always how many students get into the tertiary system but rather how many students stay at that level. In other words, what is the dropout rate of tertiary level students? It has been stated that more than 10% of the 240 000 students in the Czech Republic leave their university before completing a degree (Beneš). Such statistics suggest that it would help to have a general screening test that would accurately predict the success of students at each level and in each type of institution.

The image of the educational professional in tertiary education

Low salaries often reflect a poor image in the public eye. Some faculty members' salaries are lower than bus drivers' salaries (Ripková). Czech teachers have the lowest salaries recorded in comparison to the West/USA (Kotásek). Kotásek also pointed out, "There is a change in Hungary where the teachers' salaries are being improved by 150% by law; that change, however, is not here". While Spilková noted that it would be necessary to increase the salaries of teachers by increasing the budget for higher education, Zieleniecová observed that the low salaries of professors represent a problem in deterring the good ones from leaving. Yet, Jařab indicated that progress in tertiary education would increase salaries.

The problem for faculty members in tertiary education is not money alone. There is also the issue of social status. Kotásek said that the new law on teaching relates to social status as well as financial status. Professors in the Czech Republic are not viewed by the state or by the public as important in the same way professors are in countries like the Netherlands or Finland. However, this is not entirely without justification. Since the educational system of the Czech Republic does not seem to honour diversity and does not recognise higher-order thinkers, professors are seen as mind-keepers not as leaders in directing the learning process.

While professors are paid by the higher education institution, the money is pro-

vided from the state budget, and the government does not put enough pressure on the quality of teaching. According to Matějů, young, competent professors leave because they are not willing to stay and carry on the fight for reform. As the salaries of professors are low, the poor ones stay, and the good ones leave or never come. As Šebková noted, "We need to get education up to the level of other professions". It was indicated above that the average age of a professor among the 4000 faculty members at Charles University is fifty-nine. The high age can be attributed to young people not seeing the field as attractive, as a result of the low level of funding – very typical of the Faculty of Education (Šebková). Professional educators are people who project themselves as not being of a high level of society. There is no way of returning to the days of Masaryk and the traditions before the Second World War (Zlatuška).

Issues of tertiary funding

Being under-funded is a major theme of Czech tertiary education. The financing of tertiary education is in need of reform. "We have been too polite in the past 12 years," stated Wilhelm. He went on to say that no more than 80% of funding should come from the state budget; the rest should come from grants and faculty activities. Zlatuška stated that the strings on state money are too tight and ridiculously strong. More specifically, Sokol added, "There is a lack of funding for fine arts and language." Zieleniecová concluded that there is a lack of financing and that there should be state funding, distributed to all faculties.

The strongest power comes from the university itself and they want authority without responsibility. Matějů said that they do not have the tools to raise the required educational funds. Universities are not state institutions but ones of public law (this was set in 1998). They are financed by the state, but the governing of the universities is autonomous (Kotásek).[5]

The issue of tuition was addressed by the interviewed educators as follows: Provide a new system of financing by 2003, based on tuition and loans (Matějů); diversify the sources of income tuition fees, using that as the key way to make finance reform (Ripková); a tuition system is necessary (Jařab); in addition to the issue of tuition fees there is the concept of funding, finances must be first (Ripková); financing must be improved and we must find other sources of funding education (Kotásek); the manifestation of educational reform as seen in the budget is important (Jařab); increase the budget for higher education (increase the salaries of teachers), and redistribute the financial sources (Spilková); as money is not needed in the same way for each university, all university financing should be based on per capita of students (Wilhelm).

[5] For a review of previous funding ideas, see "M.S. McMullen, Higher Education Finance Reform in the Czech Republic: Transitions in Thought and Practice", *Education Policy Analysis Archives*. University of Pittsburgh. See www.epaa.asu.edu

Education is about learning – the transfer of cultural values and the teaching of moral values. It is about helping young people discover who they are and what their potential is and guiding them to become responsible citizens of the society and the world. It means they see themselves and others as capable of learning and it means they are equipped to live, work, and play in the world of today and the world of tomorrow.

Therefore, in a nation of limited resources, funding must be secured, not only through the state, but also through alternative means. Here are a few common ways of acquiring alternative forms of financial resources: the universities can lease some of their properties and can sell some of their land and buildings; income can be derived from the issuance of patents by professors who develop and create concepts that become marketable; international partnerships can be arranged, much as they have been, but with some necessary development towards fuller potential, and income can also be derived from the results of research conducted in the universities.

Perhaps there would be some value in hiring professionals to solicit donations from wealthy people, corporations and foundations, especially from those groups of people and companies who want to see a reformed educational system. This can be done both inside and outside of the country.

Issues of integration

The topic of integration is one of concern for Czech educators. According to Wilhelm, "Practitioners said we must have permeability with networking to adequately supply the need (for the Bologna Declaration)". There seems to have been very little progress made in agreeing to any permeability between levels of education or within the tertiary level of education.

a. Between the Academy of Sciences and the university

Perhaps the debate of whether research and teaching should be separate rather than merged is an eternal one. There are strong opinions on both sides of the issue. As long as the two are separated, the debate as to which of the two is more important and which of the two should receive the most funding will continue. The debate seems always to be drawn around competition rather than co-operation.

If the current model is maintained, then the two will remain separate, i.e. separation of research and teaching identified here as the Academy of Sciences and the university. Some claim the separation now exists simply because it always has been that way, and there is no need for change. Strong voices in favour of a merger come from Zlatuška and Matějů, while others see the possibility of the Academy of Sciences being dispersed among the sites of the individual faculties, where the two

would exist in co-operation. There would also be the possibility of adding instruction to the Academy of Sciences. The current situation is such that the two exist as mutually exclusive entities, which many feel need to become one entity with multiple functions.

b. Between public education and private education

There does not seem to be a great deal of support for private education in the Czech Republic. This could be considered a tragedy, as private institutions would be able to add a degree of relief to the current problem of accessibility. Minimal funding from the Ministry of Education for private institutions that meet state requirements could add potential for establishing an outstanding educational offering. A degree of freedom could be granted, as indeed it has been in some cases, to those institutions that apply for and meet the government's requirements for providing educational opportunities to a variety of student populations.

More opportunities for study that allow more selection from the private sector could enhance the credibility of Czech institutions of higher learning. Since the system is a non-integrated one, newer institutions have not become established within the state university concept (Kotásek).

Consideration might be given to the integration of private and public systems, since both exist on parallel tracks serving the same population, but are not permeable in their co-existence. For example, private higher education could be integrated into a feeder programme for late-developing students, allowing them to matriculate while experiencing academic success. If they do not succeed in private higher education, they probably would not succeed in public higher education either – unless there were provisions to empower private schools to explore innovative methods, find market niches and recruit high-profile professors and programmes. Therefore, a systematic incorporation by the academic leadership of private and public education could be a boon to the accessibility problem.

c. Between secondary and tertiary education

Since Czech tertiary education does not exist exclusive of the Czech public educational system, there is a need for a vertical integration of the system much like the horizontal one discussed in the two previous sections. In order to create an effective product influencing higher education, the Czech educational system would need to be reformed throughout. One of the common purposes of higher education is to instil in the young population the cultural values and mores which can be and are often seen as controlling the minds of the children. Pehe noted that changes in the educational system need to begin in elementary and secondary schools to enable students to be prepared and not be passive, to speak out and to interact, and he added, "we are already too late with this generation of youth to be able to prepare them ad-

equately for globalisation". Hoza stated that schooling is not given to problem solving by traditional passive learners in lectures. It should be noted that, as Matějů observed, the tertiary structure is such that it is not open at the beginning. Zieleniecová added that there were not enough changes made after 1989.

One contrast is Spilková's observation that primary and secondary schools are changing very rapidly. The lack of compatibility has caused secondary education not to be influential or credible for entry into university. This does not negate the previous description of tertiary education, and one can only hope that the changes observed by Spilková are for the betterment of the educational system overall.[6]

d. Within the tertiary level itself

Horizontal and vertical integrations are important, but nothing threatens success more than the lack of internal integration of the tertiary level itself. The current flexibility of programming is not satisfactory for students. The faculties at Charles University have not integrated their studies. Each faculty is closed, and there is no co-operating within study fields. A university should be a research centre as well as an independent faculty. Every professor should be concerned about people in the profession of each field: the researchers need to co-operate with other classroom professors. The interaction should be positive (Zieleniecová).

Ripková, Spilková and others also noted the lack of 'flexibility in passing from lower college to higher college'. There are too many 'blind alleys', like diplomas with absolutely no value. The Ministry of Education could eliminate the problem by redefining schools and placing them in different categories (Ripková).

Spilková noted that there are serious problems in internal integration because faculties have great autonomy for curriculum development. National standards are missing, so there is no accountability. Spilková stated that because there are autonomous faculties everywhere, this is a very negative situation. Ripková observed that the Czech higher education is uneven in the quality of the different disciplines; for example, the natural sciences have kept up, while the social sciences have not (Ripková).

Wilhelm pointed out that the absence of co-operation between the university and other Czech private institutions has resulted in a failure to bring fields of study together. Matějů said that there is a notable lack of universality, and Kotásek added that the system is non-integrated. Jařab pointed out also that not much is being done to bring research and teaching together. Perhaps Pehe's statement best summarised the issue: Czech higher education is in a state of flux and searching for an appropriate shape.

[6] For a review of the status of education at the different levels in the Czech Republic see the Ministry of Education, Youth and Sports, "National Programme for the Development of Education in the Czech Republic". National Programme for the Development of Education in the Czech Republic. Jiri Kotásek editor-in-chief. White Paper published in 2001.

Thus, some ideas to consider are:

A. Study programmes need to be structured adequately and uniformly, providing easy and efficient permeability. The curriculum should include more programmes to be taught in English and should include an enlarged capacity in higher education institutions, especially in humanities studies.

B. Research should be established within the university and at least two new research universities should be provided outside of Prague. Allowing private universities to increase would increase the number of degree granting institutions.

C. Unified but diversified, simple but complex, comprehensive but limited: These are the necessary aspects of a complete system of comprehensive education. A factor often noted in the survey responses was a concern over the lack of permeability within the system of higher education – 'too many dead-ends' and 'too many blind alleys'. All this may be tied up in the arguments over national vs. regionalised standards and decentralisation vs. centralisation. The reality of this, however, is often played out in the lives of the students, who suffer needlessly because the educational leadership cannot progress to a system that sufficiently takes into account the students and their needs, though this is not to infer that the current system does not see or take into account the needs and desires of students at all.

D. The Ministry of Education needs to take action to see that 'gaps' are filled and replaced with a 'seamless' curriculum. This needs to be 'top-down' and 'bottom-up', driven by leadership that knows and understands the nuances and ramifications of curriculum decisions. Curriculum design and implementation is not an easy task. To make wise curriculum decisions good research is needed, but to implement wise curriculum good educators (professors/teachers) are needed. A seamless curriculum is needed as soon as it can be developed.

The potential influence of entry into the EU on Czech higher education

Potentially, the entry of the Czech Republic into the EU could be the biggest boon to Czech higher education since 1348. It is inevitable that education and politics merge, since education is a function of the state. If the Czech Republic does not join the EU in 2004, the current educational goals will continue. Not joining the EU would not diminish Czech higher education, but it would limit the growth and potential of Czech students and professors.

The following seemed to represent the expectations of those interviewed. There will be a demand for higher standards: "The standards will be higher but some are already high, like in the sciences" (Ripková). Expectations are high for both student and faculty exchanges (Hoza, Wilhelm, Kotásek, Sokol). There is a concern for the quality of work and the transferability of credits (Zieleniecová) and EU accreditation (Spilková). Concerning the SOCRATES programme objectives,[7] Jařab notes,

[7] http://europa.eu.int/comm/education/socrates/shorten.pdf

"Czech education is ready for enlargement and becoming what the SOCRATES system advocates". Šebková also commented on the current EU programme expectations of SOCRATES-ERASMUS.[8] Matějů believes that the EU does not seem to be interested in the research and development section of Czech higher education, so not much is to be expected in this area. Appropriate partners for the exchange of students with other EU universities will be expected (Wilhelm). Kotásek noted that there will be both positives and negatives.

Matějů pointed out that competitiveness is declining because the Czechs are too busy being Czechs and not busy being internationally conscious. Ripková indicated that the social sciences will have a problem with quality and with international standards, and noted further, "Living in a society with unique language limits will always limit the influx as well as the egress".

Josef Beneš, the Director of Higher Education for the Ministry of Education, is responsible for the alignment of the Czech Republic with the EU (The Bologna Declaration and corresponding process) and he is currently preparing for the Berlin Summit (2003).[9]

The Bologna Declaration will have influence on new thinkers more than current leadership (Kotásek). Kotásek goes on to say that there will be greater opportunities for study abroad. The Bologna document will require that the university align with a standard credit system. It will help higher education to be connected and it will be a wonderful, positive adventure (Zieleniecová). Hoza said, "It has influence now, as the bachelor's, and the Bologna Declaration, are both addressed". Spilková observed that the Czech Republic is starting to implement the Bologna document and Sokol stated that the Czech Republic was already aligned with it.

The Czech Republic must be wary of lowering standards by compromising in order to make money (Ripková). In opening the borders of the EU, one might expect there would be a 'brain drain', but Zlatuška says he has no fear of academics leaving.

What does the Czech Republic have to offer the EU? Zlatuška stated, "It has research". The Czech Republic can offer Central European culture, although the Jewish influence sadly has been diminished (Jařab). EU entry will be positive (Spilková, Zieleniecová, Matějů, Kotásek). "Every Czech should spend one term abroad," said Kotásek, who also pointed out the importance of acquiring English and German language skills, and indicated that the emphasis should be on a democratic education, of which the USA puts forth the best model. Wilhelm noted that students from Charles University are highly respected when studying abroad. Pehe mentioned that there will be contributions from excellent international educators who can come here to teach, while Jařab noted that bringing quality to teacher education is imperative. Spilková made an excellent point when she stated that an expansion of collaboration between international organisations will occur in order to find solutions to common experiences in higher education.

[8] http://europa.eu.int/comm/education/erasmus/what.html

[9] http://europa.eu.int/comm/education/socrates/erasmus/bologna.pdf

An idea to consider is that Czech universities should willingly become a part of the European area of higher education and push for more diversification, as well as promote more student exchanges.

The formal and informal educational leaders in the Czech Republic

Leadership can often be elusive and difficult to identify. However, it is important to identify the leaders in an educational system. If reforms are to take place in higher education in the Czech Republic, they must be led or supported by educational leadership. The Czech Rectors' Conference was consistently identified as the holder of leadership in Czech higher education (Matějů, Ripková, Sokol, Spilková, Hoza, Wilhelm, Zlatuška, Šebková). As Wilhelm is the head of the Rectors' Conference, he was also identified as being an important person in leadership (Zieleniecová, Spilková, Hoza, Zlatuška). It was noted that Wilhelm's strength as a leader is in his effective leadership in the boardroom (Zlatuška).

Another two groups were identified as having a leadership profile: the Council of Higher Education Institutions and the Accreditation Commission. While identified as leaders, they were also indicated as being very influential in their leadership capacities. The Accreditation Commission was identified as influential because it gives the expert view on a study programme, which is the necessary foundation for attaining accreditation from the Ministry of Education (Kotásek, Spilková, Šebková). Alongside Wilhelm, as the most frequently cited leader, others mentioned were Matějů, Zlatuška, Jařab and Sokol, and even the best solution would be if Václav Havel himself could convene such a group. Perhaps it could be said the commission could offer to the Czech people a lasting legacy of practical and workable solutions for learning and teaching in the 'new world' of the twenty-first century.

Conclusion

The current state of Czech higher education can only be understood in the larger context of the country as a whole, but it has been best described as being in a state of flux. Education is faced by a number of areas that need to be addressed, some of which we have discussed here, such as curriculum issues, instructional aspects, accessibility problems, funding and integration. Curriculum and instruction need to be restructured and re-thought. The introduction of and support for the bachelor's degree – both through resource backing and input from the business sector – as the terminal degree would represent an important step. Language programmes should be stressed, to give students the skills to learn abroad and embark on exchanges, and to prepare them for the more global context of higher education. At the same time, a highly interactive curriculum should be introduced, encouraging student participation in an effort to support their interactive skills, while maintaining the strong knowledge base, in response to the requirements of the labour market, which naturally also demands structures for life-long learning.

Funding and accessibility are also serious issues in the tertiary sector of education. Czech higher education needs to be restructured and more strongly and thoroughly integrated. Opening up to the emergence of private institutions would be a good way to help combat limited accessibility. At the same time, state universities should seek alternative sources of financing through their own initiatives.

Integration within tertiary education, between different levels of education, and between various educational institutions is also an important issue. The public and private systems need to become integrated and rendered permeable, while study programmes need to be adequately structured and provide easy and efficient permeability and a 'seamless' curriculum. Within an enlarged Europe, these measures will require strong leadership from within the Czech academic community.

The issues in this article are indicators of the process of change, as some points are just beginning to be addressed, others are continuing to be addressed, and still others are being brought to a close. Educational change can occur along with the passage of time, or it can occur through visionaries who set change in motion. The Czech Republic needs to bring its issues, resources and funds into focus, define its leadership and look beyond the EU to a place of leadership in European educational consolidation and reform.

BILL WELDON *holds a Ph.D. from Arizona State University where he served for a decade as an instructor of education issues. His recent publications (2002–2003) include articles on* How People Learn Best, Czech Culture and Business, Motivation: Beyond Power and Money, *and* Considerations for Higher Education Systems in Post Communist Societies: The Case of Czech Higher Education. *He is currently a visiting professor and leads doctoral seminars at Charles University.*

Czech Higher Education Still at the Crossroads*

PETR MATĚJŮ**
Institute of Sociology, Academy of Sciences of the Czech Republic, Prague
and Anglo-American Institute for Liberal Studies

NATALIE SIMONOVÁ**
Institute of Sociology, Academy of Sciences of the Czech Republic, Prague

Abstract: The paper addresses the development of higher education in the Czech Republic after 1989, with special emphasis on the relevant legislation, institutional settings, financing and enrolment. Czech higher education has changed profoundly since 1989. Universities were granted almost full autonomy as early as in 1990. They have reformed their curricula, expanded programmes in the humanities and social sciences, and eliminated political criteria from admissions policies, both for faculty and students. However, the structural changes were not as quick and profound as obtaining and mastering the freedom was. The most significant *structural* changes in the Czech tertiary educational system addressed in the paper are *decentralisation* and *diversification*. With regard to financing, the authors argue that universities have remained dependent on the state to a high degree. Several attempts to expand multi-source financing by introducing cost-sharing features (tuition fees, loans, student allowances) failed. The reliance on the public budget led to a severe financial crisis in public universities. As far as the enrolment is concerned, the authors demonstrate that, although the number of students rose by almost 60% between 1989 and 2001, the offer of educational opportunities was too low to meet the steeply rising demand for tertiary education. The chance of being admitted hovered around 50%. Owing to the combined effect of a drop in the size of the relevant age cohort and the growing proportion of students admitted to bachelor programmes, the chance of enrolment started to increase in 2001. In spite of this recent change, the transition from secondary to tertiary education still remains the most critical moment in an educational career.

Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3: 393–410

* The core institutional support for this research was provided by the Grant Agency of the Academy of Sciences of the Czech Republic (Grant # S7028203: Obstacles to the Implementation of a Cost-sharing Principle in Financing Higher Education). This research was also supported by the grant from the CERGE-EI Foundation under a programme of the Global Development Network. All opinions expressed are those of the author(s) and have not been endorsed by CERGE-EI, WIIW, or the GDN. Financial support was provided also by Open Society Fund, Prague, through the Institute for Social and Economic Analyses (ISEA).

** Direct all correspondence to: Doc. PhDr. Petr Matějů, PhD./Natalie Simonová, Institute of Sociology, Jilská 1, 100 00 Prague 1, Czech Republic, e-mail: mateju @soc.cas.cz; simonova@soc.cas.cz

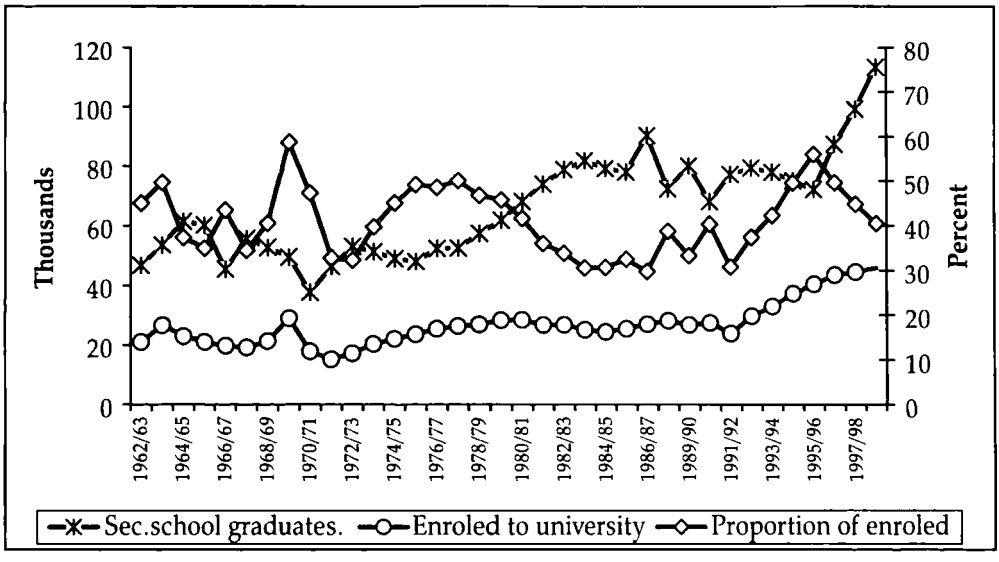
Reforms to the system of higher education in East-Central Europe display both common and unique features, with the commonality derived mostly from the similarity of tasks faced by the post-communist countries at the beginning of their transformation. One of these was the need to reform the 'soviet' or 'communist' model of higher education and research. However, it has only now become obvious that transforming the communist-type system of higher education into a modern one – well integrated into the democratic society and knowledge-based market economy – is a task far more difficult and demanding than was expected by educational policy makers, international experts and observers at the beginning of the post-communist transformation [Čerych 2002, Rupnik 1992].

The high level of resistance to changes exhibited by the system, its structure and the self-interests of its major agents (rectors, university senates, faculty, staff, and even students) was combined with the gradual descent of higher education down the list of priorities of both governments and politicians. After more than ten years of transformation in East-Central Europe, it became evident that the issues related to the development of human resources (higher education, research, innovations, technological development etc.) had relatively low political and voting potential and, as a result, failed to make it to the top of governmental policies and political party agendas, even though they are of extreme importance for the future competitiveness and economic growth of post-communist countries.

This does not mean to say that no significant changes in higher education, its structure, governance, autonomy, openness, financing and – above all – its spirit have been implemented. To understand the difficulties of transformation of higher education systems in post-communist countries, one must take into account the key features of the 'soviet' or 'communist' higher education system inherited from the previous 'regime':

- higher education was heavily centralised within the central planning system – like any other area of economic and social reproduction. Its vital link to the labour market was set by the Central Committee of the Communist Party; consequently, both the overall number of students and their allocation to major fields of study and programmes were decided centrally;
- bureaucratic control over the entire system – balancing the quantity of graduates with the number of offered jobs, displaced job competition and, as a consequence, educational credentials (diplomas, certificates) which became more important in job allocation than actual knowledge, skills and competencies;
- enormous emphasis on technological (engineering) education narrowed the offer of educational opportunities in the humanities and social sciences; with emphasis on fixed rather than dynamic skills and flexibility;
- curriculum guidelines, research goals and teaching position requirements (including political criteria) were defined and closely monitored by the Communist Party and its state apparatus; the lack of academic freedom and autonomy seriously undermined the capacity of higher education and research to supply the economy with research results applicable in technological development and innovations;

Figure 1. Secondary school graduates, enrolled to university, and the proportion of enrolled between 1962 and 1999 in the Czech Republic. Both graduates and enrolled include part-time students.



Sources: *Vývojová ročenka školství v České republice 1989/90–1998/99* [Yearbook of Education Development in the Czech Republic 1989/90–1998/99]. 1999. Prague: Institute for Information in Education. *Statistiky školství* z let 1962 až 1989 [Education Statistics from the Years 1962 to 1989]. Prague: Ústav školských informací [Institute of Information on Education]. *Historická ročenka školství v České republice 1953/54–1997/98* [Historical Yearbook of Education in the Czech Republic 1953/54–1997/98]. 1998. Prague: Institute for Information in Education.

- a 'unitary' system of traditional university education (predominance of long engineering or master's degree programmes), the absence of short bachelor's degree programmes; the system did not recognise college or similar types of higher education institutions;
- decisions about the number of admitted students and enrolment procedures were based on central guidelines; for a long time (until the mid-1960s)[1] there were quotas set by the Communist Party Central Committee for controlling the proportion of students from various social backgrounds (the goal was to ensure an 'appropriate' proportion of students with a class background corresponding to the social class share within the population);

[1] A similar principle (based on the so-called preferential points for social background and political activity) was applied even after the quota system was officially abolished, particularly during the 'normalisation period' after 1969.

- higher education and academic research were artificially separated, so-called basic research was carried out in the research institutes of the Academy of Sciences, while universities were deprived of research funding and participation in research projects;
- the financing of universities was totally dependent on the government, taking the form of 'incremental budgeting', i.e. the annual budget of each university was equal to that of the previous year (budgetary base) plus a certain increment (very much dependent on their success in negotiations and on available resources).[2]

The stagnation of the socialist university system, and its failure to respond to educational aspirations and to the actual demand for tertiary education, are well demonstrated in Figure 1, which shows the numbers of secondary school graduates and enrolled university students, and also the ratio of enrolled university students to secondary school graduates between 1962 and 2001. The data clearly confirm the policy of keeping the number of university students very low up until the collapse of the communist regime in 1989, with the only exception being the academic year of 1968/69, when – as a result of the Prague Spring – the control of the Communist Party over the university system was less rigid, but tightened again after the Russian invasion in 1968. The chances of making the transition to tertiary education (defined as the ratio of enrolled students to high school graduates) were reduced in the 1980s when the number of high school graduates began to grow. In spite of the sharply increasing number of enrolled university students after the collapse of the communist regime in November 1989, the capacity of the university system – still trapped in its traditional 'unitary' and 'elitist' structure – was unable to cope with the quickly growing demand for tertiary education. Therefore, the relative chance of making the transition dropped again to its average pre-1989 level.[3]

First stage of the reform: towards academic freedom

Starting in 1989, the transition to democracy and a market economy brought about significant changes within the society, and also in the higher education system. The Higher Education Act of 1990 created room for a return to democratic control of higher education. It eliminated political control over university activities and decision-making processes and reduced significantly the government role, thus creating much larger room for the academic bodies. The Act restored university senates as

[2] This procedure and other aspects of change in financing higher education in the Czech Republic are documented in Holda, Čermáková, Urbánek, 1994.

[3] The immense growth of the number of high school graduates after 1995, well illustrated by the figure, can be explained, among other things, by the creation of room for so-called 'long-gymnasiums', established in 1990, which were academically oriented high schools with a programme lasting six, seven, or eight years, picking up students before they finished elementary school lasting nine years (a standard gymnasium has only four years and students are recruited only from those leaving ninth grade).

Table 1. Number of students at different levels of tertiary education in the Czech Republic 1992–2002

Academic year	All students	All undergraduate students	Proportion of students in bachelor programmes[1]	Proportion of postgraduate students[2]
1992/1993	117,637	114,185	11.0	2.9
1993/1994	127,137	122,456	12.8	3.7
1994/1995	136,566	129,453	21.7	5.2
1995/1996	148,433	139,774	24.9	5.8
1996/1997	166,135	155,868	23.5	6.2
1997/1998	173,826	162,373	24.3	6.3
1998/1999	193,036	179,089	18.1	7.2
1999/2000	196,195	181,601	18.4	7.4
2000/2001	199,825	184,000	18.6	7.9
2001/2002	211,545	194,312	20.6	8.2

1. Proportion of students in bachelor's programmes from all undergraduate students
2. Proportion of postgraduate students from all students

Source: *Ministry of Education, Youth and Sport.*

representatives of faculty, students and staff, granting them a high level of control over the curriculum, hiring practices and research goals. The Act also provided universities with the freedom to make their own financial decisions. The Ministry of Education allocates funds to universities, which in turn are responsible for their distribution and spending. The fiscal freedom framework also implies that the government allocates the funding without stipulating the number of students the universities should educate [for details see Holda, et al., 1994].

Though this Act opened the way to the modernisation of Czech higher education, many of the structural problems remained unresolved. First of all, the system did not change its 'unitary' character; unlike most of the advanced countries, where bachelor's programmes were established primarily in order to open the tertiary system to the sharply increasing numbers of applicants and to meet the changing demands for more practical skills, the number of students enrolled in these types of programmes in the Czech Republic grew very slowly (see Table 1). A faster transition to a binary (or two-tier) system, as the key prerequisite for a significant growth of opportunities in tertiary education in the Czech Republic, would have required stronger legislative support for establishing the non-university sector within tertiary education. The Act of 1990 did not go that far.

The Act of 1990 did not introduce any standardised, compulsory component into entrance examinations. While universities had full autonomy in drafting their

entrance examinations and tests, the matriculation examinations at the end of secondary education remained incommensurable both in structure and results. Under the conditions of a significant surplus demand, the absence of nationally administered tests at the end of secondary education, or upon entry into the tertiary level, undermines the transparency of the admissions process and opens up considerable space for more or less subtle forms of corruption.

The Act also failed to create a legislative framework for private universities or colleges. Though there were no legislative obstacles to establishing private colleges, the Act did not provide for their eligibility to apply for the 'state accreditation', which allows, among other things, the issuance of degrees recognised by the Ministry of Education. This Act also made no major progress in resolving the institutional separation of teaching and research. Though universities were authorised to provide post-graduate training, most of the state-funded research remained concentrated at the Academy of Sciences, and that is why the number of post-graduate students grew so slowly after 1990 (see Table 1).

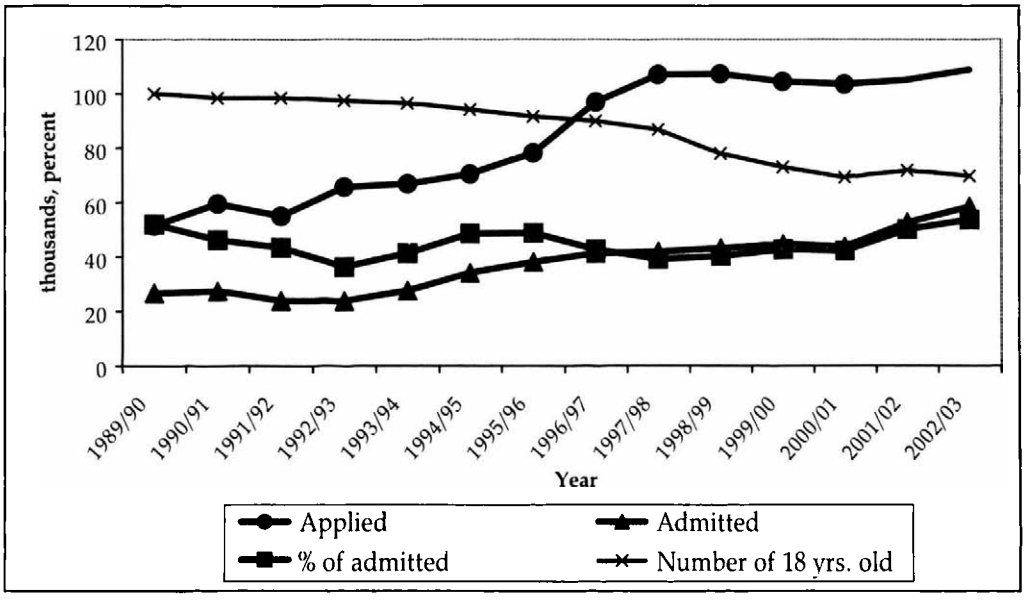
One positive, though at that time rather controversial, decision was that of enabling regional decentralisation by establishing 'regional universities'. The proportion of students in traditional university centres (Prague, Brno, Olomouc, Ostrava) began to drop as regional educational centres increased their enrolments in more practically oriented programmes.

As for the overall impact of the Higher Education Act of 1990 on the development of higher education in the Czech Republic, assessments should be rather cautious, in particular with respect to its impact on the financing and accessibility of higher education. One may agree that, "The importance of the law ... cannot be overstated. It put substantial decision-making power back into hands of the university and its faculty and students. The law emphasized academic rights and freedoms as important principles of democracy, and envisioned democracy in terms of self-government and autonomous decision making within the higher education community" [McMullen and Prucha 2000: 63]. There is, however, an equally justified objection that the almost complete self-government granted to universities in advance of a much deeper and more consistent reform of the system made future reforms more difficult if not impossible. The subsequent development justified this concern. The Czech Republic was not the only country where "the autonomy granted to universities was used – or perceived to be used – to block reform" [Scott 2002:146].

The first signals that consistent and often painful reforms may not receive sufficient support appeared in 1994. At that time, universities were facing serious austerity, the number of applications grew much faster than the ability of schools to meet the rising demand (Figure 2), while supplementary financial resources were either outlawed (tuition fees) or not sufficiently explored and used (commercialisation of research). It became clear that the future growth of higher education would not be possible without a substantial reform of its financing.

For this reason, in 1994, a group of economists and policy-makers drafted a proposal for a substantive reform of university financing designed to implement a system similar to the Australian Higher Education Contribution Scheme (HESC).

Figure 2. Number of applicants for tertiary education, admitted students, and ratio of admitted to applied after 1989 in the Czech Republic



Source: *Institute for Information in Education.*

In spite of being initially commissioned by the Committee for Education and Science of the Czech Parliament, this proposal never reached the form of a Bill submitted to Parliament for debate. This was due mainly to the strong lobbying of university rectors and senates against the idea, which – as they claimed – would enable the disengagement of the state from financing higher education, and burden students and their families with steadily growing tuition fees. The university administration was also uneasy about the idea of tuition fees collected by the state and then redistributed back to universities as part of the state subsidy. Economic incentives brought about by this system were not seen as compensating for the pressure towards higher accountability and responsibility tuition fees would certainly introduce.

Second stage: more autonomy and persistent barriers to multi-source financing

The new Higher Education Act, passed by the Czech Parliament in April 1998, went even further in strengthening the (formal) autonomy of universities, without giving them larger fiscal autonomy and opening new (particularly private) sources of financing them. Although universities became 'public legal entities' with extensive property rights, serious restrictions were imposed on the use of this property in generating revenues, especially through participation of universities in private ventures

Table 2. Number of institutions and students in higher education in Central and Eastern Europe in academic year 2000/01

	Institutions				Students			
	Public		Private		Public		Private	
Country	Number	%	Number	%	Number	%	Number	%
Albania	11	100.0	0	0.0	23,704	100		0.0
Belarus	42	73.7	15	26.3	241,100	87	35,900	13.0
Bulgaria	79	89.7	9	10.3	215,676	88.5	27,916	11.5
Croatia	17	65.4	9	34.6	117,205	98.6	1,646	1.4
Czech Rep.	28	66.7	14	33.3	213,207	99.0	2,000	1.0
Estonia	14	40.0	21	60.0	38,511	74.8	12,963	25.2
Hungary	30	48.4	32	51.6	255,943	85.7	42,561	14.3
Latvia	20	60.6	13	39.4	78,156	87.3	11,353	12.7
Lithuania	38	90.4	4	9.6	...	...	...	...
Macedonia	2	66.7	1	33.3	39,978	97.7	923	2.3
Moldova	57	50.0	57	50.0	79,713	77.4	23,210	22.6
Poland	115	37.1	195	62.9	1,106,798	70.1	471,443	29.9
Romania	57	40.7	83	59.3	322,129	71.1	130,492	28.9
Russian Fed.	607	62.9	358	37.1	4,270,800	90.0	470,600	10.0
Slovakia	18	90.0	2	10.0	125,054	99.3	842	0.7
Slovenia	2	18.1	9	81.9	64,989	95.7	2,900	4.3
Ukraine	816	83.3	163	16.4	...	...	...	...

Source: *UNESCO-CEPES.*

the Act of 1998 in fact suddenly blocked universities from establishing spin-off companies, though some of them had done so. This – along with the legal obstacles to collecting regular tuition fees from full-time students enrolled in accredited programmes – made it difficult to change multi-source financing from only a catchword to real practice.[4] Even though universities were allowed by the state to earn money through various activities (conferences, consulting, publishing, research, bookstores, exams, licensing agreements, etc.) and to keep the additional income, ex-

[4] The Higher Education Act of 1998 permits the charging of regular tuitions fees only to participants in so-called life-long education programmes. However, these programmes are strictly separated from the accredited programmes (i.e. taking courses in these programmes does not lead to a bachelor's or master's degree) and the participants cannot obtain the status of students, with all the related responsibilities and benefits. Another kind of fees universities may charge are in fact penalties for staying longer than the 'standard length of the programme'. Curiously enough, universities were reluctant to charge these fees, with the anticipated effect of more rapid growth in the number of students remaining in schools than the number of newly enrolled applicants.

empt from taxation, in their own institutional accounts [see e.g. McMullen and Prucha, 2000: 64], the two principal sources of multi-source financing, specifically tuition fees and profits from spin-off companies, remained essentially untapped. In other words, Czech universities received more formal autonomy and even extensive property rights, but their financial dependence on the state remained unchanged.

A markedly pro-reform oriented provision of the 1998 Act – the legal recognition of 'non-university institutions of higher education' (colleges), building their profile primarily (though not exclusively) on bachelor's programmes – made room for a non-university segment of tertiary education. Nonetheless, this provision did not bring any significant changes to the structure of Czech tertiary education. Though the demand for bachelor's programmes was steadily increasing and the transition of the tertiary system of education from a 'unitary' to a 'binary' model was recommended to all European countries by the Bologna declaration, not a single *public* 'non-university institution of higher education' has been established as yet.[5] Quite the contrary – the number of students in bachelor's programmes at the existing universities dropped after 1997, with no clear tendency towards steady growth (see Table 1). It turns out that the resistance in the Czech Republic of public universities and the state administration to structural changes that would open the way to the expansion of higher education is immense.

Nevertheless, the non-university sector of tertiary education has gradually been filled by private colleges, as the 1998 Higher Education Act made their state accreditation possible. Although private colleges or universities receive no financial subsidy from the state (though the Act does not explicitly prevent this), as of the academic year 2000/01, fourteen private colleges were established with more than two thousand students, and slowly filled the gap in the 'non-university' sector of tertiary education. Though this was by all means a significant step towards the further liberalisation and diversification of higher education, the Czech Republic is still lagging behind other Central and East European Countries with respect to the size of the private sector in higher education, particularly in comparison with Poland, Hungary, Estonia and Latvia, where the share of students in private colleges or universities is much higher (see Table 2 for a comparison of countries in Central and Eastern Europe).

[5] The Bologna Declaration, signed in 1999 by the authorities responsible for higher education in twenty-nine European countries, setting as its main long-term goal the promotion of the creation of European Higher Education, put forward the following objectives: the adoption of a system of easily readable and comparable degrees; the adoption of a system based essentially on two main cycles, undergraduate and graduate; the establishment of a system of credits; the promotion of mobility by overcoming the obstacles to effective free movement; the promotion of European co-operation in quality assurance; and the promotion of the necessary European dimensions in higher education.

Third stage: the financial crisis inhibits growth and fundamental reforms remain blocked

Both domestic and international statistical data show a lasting and deepening financial crisis in public tertiary education in the Czech Republic, which, in turn, inhibits the growth of educational opportunities that could help to fill the gap in the number of adults with tertiary education in the Czech Republic and improve the chances of continuing studies after graduation from the secondary level.

After 1994, when the new mechanisms of tertiary education financing were implemented, the number of students at public universities grew steadily (from 132 thousand in 1994 to 211 thousand in 2001 – see Table 3 and Figure 3). An increase in the number of students by about 60% was followed by similar growth in the state subsidy, from 7.122 billion in 1994 to 11.9 billion in 2001 (68% increase). However, inflation in this period grew at a similar pace (the cumulative inflation rate between 1994 and 2001 was 68%). As shown in Figure 3, the state subsidy per student in real terms dropped from CZK 54 000 in 1994 to CZK 34 000 in 2001. These figures clearly indicate that the performance of Czech universities grew both in economic terms (real input/output ratio) and teaching efficiency (student/teacher ratio).

The high budgetary deficit of the system of higher education in the Czech Republic is also confirmed in international comparisons. According to Education at a Glance (2002), the OECD countries invest in their tertiary educational systems an average of 1.6% of GDP from both public and private sources. In the Czech Republic, this figure is as low as 0.9% (or 0.7% when only the public sources are considered). The same yearbook points to a very low share of educational expenditures out of the total public expenditures. While the Czech Republic invests approximately 1.9% of the total public expenditures, in the OECD countries the figure is on average 2.8%. It should be noted that in this the Czech Republic lags behind some other post-communist countries (Hungary 2.6%). As for the average expenditure per student in the tertiary sector of education, in the Czech Republic it amounts to USD/PPP 5 700 (USD converted into the parity of the purchasing power). This is the fourth worst position among the OECD countries (the OECD average is USD/PPP 9 000, the United States 19 000, Sweden 14 000, Australia and Austria 11 500, United Kingdom, Denmark and Ireland 10 000).

Though there is no doubt that public funds remain the main source of financing for public universities almost everywhere, the share of private sources in funding public, tertiary educational institutions is increasing worldwide. The Czech Republic is also lagging behind in this respect, since the share of private funding is far below the average level in advanced countries. The share of private funding in university budgets in the Czech Republic is approximately 14% of the total budget, the OECD average is almost 21% (in countries with tuition fees it reaches 30% to 60%).

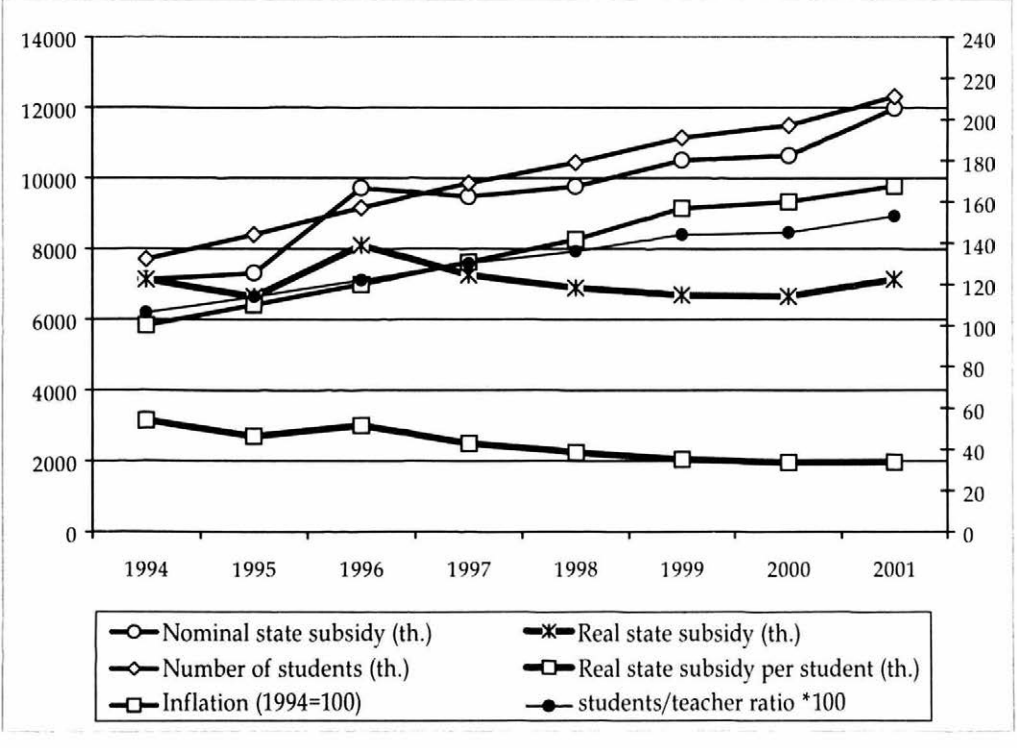
Though universities (in the Czech Republic) were formally freed to also draw money from alternative resources (except regular tuition fees and investments in private ventures), the state budget has remained the dominant source. Even the

Table 3. Basic indicators of financing public tertiary education in the Czech Republic 1994–2001

Year	Number of students (thousands)	Nominal state subsidy (thousands CZK)	Cumulative inflation (%)	Real state subsidy per student (thousands CZK)	Number of students per teacher
1994	132	7122	100	54	10.6
1995	144	7315	110	46	11.4
1996	157	9721	120	52	12.2
1997	169	9477	131	43	13.0
1998	179	9765	142	39	13.6
1999	191	10500	157	35	14.4
2000	197	10642	160	34	14.5
2001	211	11970	168	34	15.3

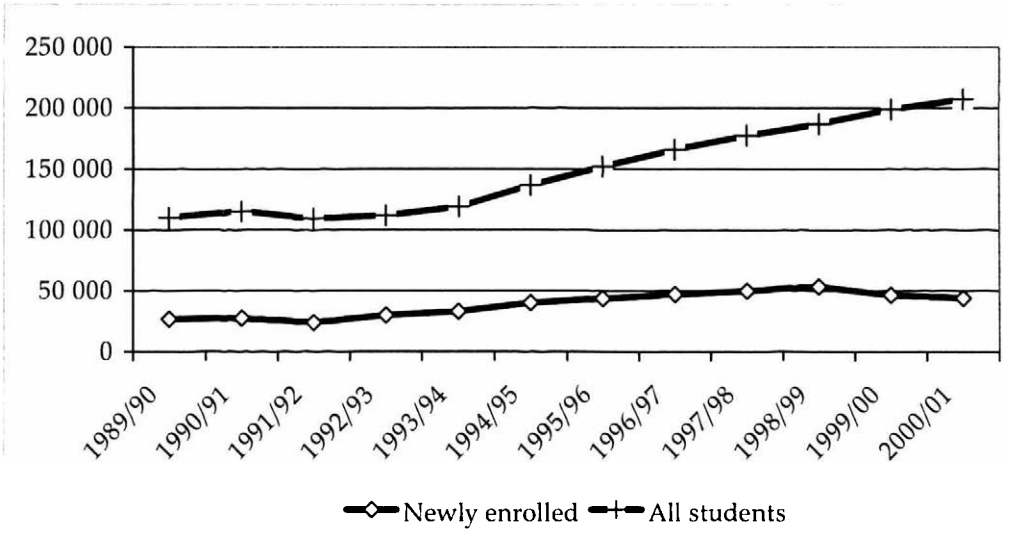
Source: *Ministry of Education, Youth and Sport.*

Figure 3. Basic indicators of financing higher education in the Czech Republic 1994–2001



Source: *Ministry of Education, Youth and Sport.*

Figure 4. Number of newly enrolled and total number of students at public higher education institutions



Source: *Ministry of Education, Youth and Sport.*

tightening budgets and rapidly growing austerity had no significant effect on the reluctance of public universities to adopt a two-tier (binary) system which would allow the admission of a higher number of students in short programmes. In fact, the opposite trend occurred: after 1998, when the new Higher Education Act made room for the 'non-university' institutions of tertiary education, with the primary goal of expanding the opportunities in bachelor-study programmes, the proportion of students in these programmes decreased, and in spite of a slight recovery it still remains below the level of the 1997/98 academic year (Table 1, column 4).

The increasing austerity did not have a significant impact on the tendency of students to prolong their studies far beyond the limits set by the 'standard length of study' for each study programme. Data presented in Figure 4 confirm that the current system of financing public tertiary education does not contain sufficient incentives for students to complete their studies within the specified period of time, thus blocking a large number of 'seats' that could otherwise be offered to new entrants.

Lasting financial and structural obstacles, limiting the growth of the number of educational opportunities at the tertiary level, explain why the Czech Republic remains very close to the bottom among the OECD countries with respect to both the number of adults with tertiary education and the number of young people of relevant age who can continue their studies after graduation from a secondary school. Figure 5 clearly illustrates this by comparing the Czech Republic with the OECD average and with Hungary and Poland.

Figure 5. Proportion of students in tertiary education in relevant age groups (1999)

Source: *Education at a Glance, OECD.*

It must not be forgotten that the steeply rising aspirations for higher education originated, alongside other sources, in the profound change in the economic returns to higher education in post-communist countries, particularly in the Czech Republic. Jiří Večerník [2001] reached the conclusion that the effect of education on personal income doubled between 1988 and 1996. While in 1988 each year of education brought 'a premium' of a 4% salary increase, in 1996 it reached 8%. This progress was achieved in spite of the income stagnation in branches with a high proportion of employees with university education – health care, education, science and research etc. If we eliminate this factor, the wage returns of one year of education increased from 4% in 1989 to 11% in 1996. This development placed the Czech Republic at the same level as Austria and other West European countries. During the same period, the ratio of the wage of a person with university education and that of one holding a secondary school diploma increased from 1.48 to 2.37. Also, OECD data confirm that economic returns to tertiary education have grown after 1989. The average earnings of a person with tertiary education in the Czech Republic is 1.8 times higher than the earnings of a secondary education graduate; the OECD average ratio is 1.63 (Hungary 1.84, USA 1.8, France 1.69, Germany 1.57, Norway 1.32).[6]

[6] Education at a Glance, 2001. OECD, Paris 2001. Here we must realise, however, that the growing proportion of people with university education reduces the average wage premium for a uni-

All the above-mentioned processes contribute to the extremely tough competition in entering into tertiary education, and making the transition between secondary and tertiary education is literally a nightmare for secondary school graduates and their families. The high level of competitiveness in the transition from secondary to tertiary education, along with the absence of professionally designed and nationally applied admission tests, leads to high, and still growing, social selectivity in tertiary education.[7]

An amendment to the Higher Education Act of 1998 was submitted to the Czech Parliament in the autumn of 2000 with the aim of solving the most acute structural and fiscal problems of tertiary education in the Czech Republic. Though it was extensively modified during the parliamentary debate, it was ultimately passed in April 2001. The amendment provides for the accomplishment of the transformation of universities to the two-tier system by the end of 2003, and allows universities to invest capital into private joint ventures and spin-off companies (restrictions were imposed only on assets and funds transferred to universities from the state). The amendment also introduced more stringent rules for students exceeding the standard length of study.[8] In view of continuing political opposition to the implementation of regular tuition fees, the authors of the amendment aimed at providing a legal framework for the dual-track system, which in fact some universities were already practising.[9] After the amendment took effect (July 1, 2001), students in the so-called life-long learning programmes, for which universities were already allowed to charge tuition fees, were allowed to take courses in accredited programmes and accumulate regular credits, which could be – under certain conditions – converted into a regular 'diploma'. This amendment allowed universities to admit students above the quota set each year by the Ministry of Education and to charge them a discretionary tuition fee, which is very close to the amount the school would otherwise get as a state per-student subsidy. Although most of the rectors were lobbying against this provision, many universities very quickly began offering new 'life-long learning programmes', allowing them to admit students above the limit set by state funding and to improve their budgets. The tuition fees charged by universities for such programmes are close to the state subsidy per student in a given programme.[10]

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versity diploma. That is why educated people in countries undergoing transformation may be relatively better paid than those in more advanced countries. The premium for education in transition economies keeps growing, hand in hand with the growing pool of educated people.

[7] The results of analysis of class inequality in access to higher education carried out by Matějů, Řeháková and Simonová is presented in another article published in this issue.

[8] Those who exceed the standard length of study for more than a year are now charged a fee which is very close to the state annual subsidy per student in a given programme.

[9] The dual-track system in fact allows the existence of two categories of students at public universities: those whose costs of study are fully covered by the state and those who are admitted above the quota set by available public funds and are charged a tuition fee partly or fully covering the costs of their study.

[10] An interesting fact is that many rectors were also lobbying against the provisions aiming at a faster transition to the two-tier system (they claimed that it would undermine the autono-

The efforts to implement a more consistent reform of financing higher education culminated in the year 2002, when – after six months of public and political debate – a draft Bill of Financing Higher Education was presented to Parliament for debate and voting.[11] The principal goals were:

1. Open universities to a larger number of students and meet the growing demand for tertiary education.
2. Rationalise the demand for tertiary education (strengthen the economic aspects of decisions on what to study, how long to study and at which school to study).
3. Create a system of loans and financial assistance preventing new social and/or economic barriers to tertiary education when tuition fees are introduced. The new system should also eliminate existing barriers, i.e. improve conditions for students from low-income families.
4. Increase the use of private funding of university studies and help to eliminate the existing financial debt in this sector, which is one of the causes of the extremely limited capacities and the inadequately low wages of university lecturers.
5. Increase the economic incentives for universities to improve the quality of education and their awareness of the changing situation in the labour market and of the actual success of their graduates.

The draft provided for the introduction of tuition two years after the Act becomes effective (2003) and only for newly enrolled students. Universities were to be allowed to charge different fees within a specified range.[12] It was expected that for subjects not leading to high earnings (teachers, historians, social workers, etc.) the tuition fee would be set near the bottom of the range. On the other hand, lucrative subjects (such as law, economy, international trade etc.) would be closer to the higher end of the tuition fee range. This strategy was expected to make universities respect the 'market price' of a diploma in the labour market, while preventing them from overcharging students. The revenues from tuition fees would not lead to lower state subsidies, but would represent a bonus allowing universities to enlarge facilities to accommodate the growing numbers of students, to increase teachers' salaries, and to start scholarship programmes.[13]

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my of universities), as well as against opening up space for investment in private companies, which in their view put many universities in the risk of economic bankruptcy.

[11] Alongside the author of this paper, other key contributors to this Bill, mentioned here with gratitude for their time and enthusiasm, were Kateřina Havlíčková, Radim Valenčík and Simona Weidnerová.

[12] The midpoint of the tuition-fee range was set as 25% of the average state subsidy of education costs per student. In the first year, the tuition fee would vary between 1.5 and 0.5 of the midpoint multiple, the second year the maximum could reach 1.75 of the midpoint multiple, from the third year it could reach double the midpoint, while the minimum level would remain the same.

[13] The Bill set out that a minimum of 10% of the collected tuition fees would have to be allocated to scholarship funds. The criteria for awarding a scholarship were to be set by the university management in co-operation with relevant student bodies. The main idea was that scholarships would go to the talented students coming from low-income families.

With regard to loans, the Bill provided for income contingent loans from authorised banks.[14] The repayment of the loans was proposed to begin once graduates reached the average national income announced every year by the Statistical Office. The size of instalments was set at 10% of taxable income. Should the person's income drop below the national average (illness, maternity, long-term unemployment etc.), repayment of the loan could be suspended.

It was also proposed that if a student were declined a loan by a bank (because, for example, the bank was not convinced that studying a particular programme at a particular school would enable the student to repay the loan), the student would be entitled to have the payment of the tuition fees deferred until his or her income after graduation reached the average national level. The deferred tuition fees would be burdened with an interest rate slightly higher than that applied to the loans provided by banks (the idea was that in order to increase the current budget of the universities, the students should be encouraged either to make up-front payments or get loans from banks). The loan interests were proposed to be tax deductible, both for individuals and/or future employers who would be allowed to assume the loans as business costs.

A very important part of the Bill dealt with allowances for students from low-income families. Three categories of allowances were proposed: *board, accommodation* and *transportation*. To keep transaction costs as low as possible, the eligibility criteria were proposed to be the same as the criteria already used to award child benefits. The Bill also attempted to introduce tax breaks for university students.[15]

The Bill of Financing Higher Education was not passed by Parliament owing to the strong resistance of left-wing political parties, who were joined in this battle by the Christian Democrats, as well as the majority of rectors of the Czech public universities. The main arguments (leaving aside ideological reasons) against the Bill were:

1. Tuition fees would increase the inequality in access to tertiary education. Loans and deferred tuition would not offer a solution for lower social strata, who, due to higher perceived risk of failure, show a stronger hesitance to borrow for education than the upper social strata.
2. Revenues from tuition fees would not contribute much to universities' budgets, while the risk of a reduction of the state subsidy would increase.
3. There are subject fields and study programmes with relatively low expected wage levels after graduation and for them tuition fees would bring a serious decline of interest (history, pedagogy etc.) or even the risk of being closed.

[14] The upper limit for the market interest rates was set at a 2.3 multiple of the official discount rate.

[15] The income not exceeding the taxable income for students was proposed to be exempt from social and health insurance payments, independent of the type of contract between the student and the employer. This was intended to increase the readiness of companies to employ students.

Since no significant changes in the structure of the tertiary educational system, its financing, and in the admission procedures have been proposed as yet, one cannot expect marked changes in the processes shaping access to higher education in the Czech Republic as described above.

Conclusions

There can be no doubts that Czech higher education has changed profoundly since 1989. The most important and rapid change occurred in its *autonomy*. Universities were granted almost full autonomy in as early as 1990 and the principle of their self-government has not been challenged since then. Universities used the newly acquired autonomy primarily for reforming curricula, expanding programmes in the humanities and social sciences, and – of course – for eliminating political criteria from admission policies for both faculty and students. Most of the schools also got rid of the old 'nomenclature', whose primary mission was to look after the ideological purity of university education before 1989.

The structural change was not as quick and profound as obtaining and mastering the freedom was. There were two really significant *structural* changes in the Czech tertiary educational system: *decentralisation*, which was made possible by establishing regional universities, and *diversification*, mostly due to the growth of private colleges, gradually filling the gap in the offer of bachelor's degree programmes. Public universities themselves made no strong move towards the two-tier (binary) system of tertiary education. The real effects of the amendment to the Higher Education Act from 2001, which set a time-frame for this structural reform, will be known only next year, when all universities should conclude the re-accreditation of their programmes.

In spite of nearly full formal autonomy, universities have remained dependent on the state to a high degree. Several attempts to expand multi-source financing by introducing cost-sharing features (tuition fees, loans, student allowances) have failed. The reliance on the public budget, which was coming under increasing pressure from other political priorities and the accumulated deficit, led to a severe financial crisis at public universities, which culminated, in the autumn of 2001, in strikes and protest meetings among faculty, staff and students. Even in this critical situation, the universities themselves played an active role in generating strong public resistance to the implementation of the cost-sharing principle.

Although the number of students rose by almost 60% between 1989 and 2001, the offer of educational opportunities was too low to meet the steeply rising demand for tertiary education. The chance of being admitted did not change; it remained at about 50%, and it started to grow only after 2001, mostly owing to the combined effect of a drop in the size of the relevant age cohort and the growing proportion of students admitted to short bachelor's programmes. Given the rapid growth in the number of secondary school graduates and the steady accumulation of unsatisfied demand, the transition from secondary to tertiary education is still the most critical moment in an educational career.

PETR MATĚJŮ, *chair of the Department of Social Stratification at the Institute of Sociology of Academy of Sciences of the Czech Republic, and Vice-President for Research at the Anglo-American Institute for Liberal Studies. His major research interests are social stratification and mobility, inequality and equity in education, the role of human and social capital in social and economic reproduction and competitiveness.*

NATALIE SIMONOVÁ *is a research fellow in the Department of Social Stratification of the Institute of Sociology. Her research focuses on educational inequality and mobility in the former Czechoslovakia and in the post-revolution Czech Republic. Currently she is a postgraduate student at the Faculty of Philosophy of Charles University in Prague.*

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International Large-scale Studies of Educational Achievement – The Involvement of the Czech Republic

JANA STRAKOVÁ
Institute of Sociology, Academy of Sciences of the Czech Republic

Abstract: Since 1989 the Czech educational community has had very limited experience with education measurement. Comparative data on education outcomes were not available at either the national or the international level. In the 1990s, the situation changed dramatically. The Czech Republic joined international organisations specialising in comparative studies and several international enterprises in the field of education measurement. Consequently, there appeared also the first attempts to address the issue nationally. In this article the author gives an overview of the international large-scale surveys on educational achievement that have taken place in the Czech Republic since 1990 and summarises their main findings. At the end of the article, the author provides brief information about the national initiatives in this field. Within a short time period, the surveys produced extremely rich data sources of very good quality. The aim of the article is to inform the scientific community about these sources, to raise interest among its members in using them in their own research, and thus to contribute to their further exploitation.
Sociologický časopis/Czech Sociological Review, 2003, Vol. 39, No. 3: 411–424

During communist rule, the Czech educational system was very centralised, with no need perceived for carrying out standardised evaluations of educational achievement at the national, at the school or at the student level. There were no institutions specialising in educational measurement; no such discipline formed a part of the curriculum at teacher training faculties or in social science studies. There was no information available about the quality of the outcomes of the Czech educational system in an international context. The traditionally shared notion about the high quality of Czech education was derived from the success of Czech students in international Olympiads. It was not pointed out that these prestigious competitions included only the best students in each nation, and their results did not reveal anything about the achievement of average or even under-achieving students.

However, there was no political will to obtain more precise information. Participation in an international comparative study in education was out of the question. The same situation was experienced in almost all socialist countries, with the exception of Poland and Hungary. These two countries participated in compar-

* Direct all correspondence to: Jana Straková, PhD., Institute of Sociology, Jilská 1, 110 00 Prague 1, Czech Republic, e-mail: strakova@soc.cas.cz

ative studies during the communist period. Hungary in particular was a very active member of the International Association for the Evaluation of Educational Achievement (IEA),[1] which co-ordinated almost all international comparative initiatives in educational achievement in the second half of the 19th century.

The Czech Republic became a member of IEA in 1992, together with the Slovak Republic and several other former socialist countries,[2] and it joined in the Third International Mathematics and Science Study that was in progress at that time. The Czech Republic became a very active IEA member and participated in almost all its studies launched in the 1990s. In the second half of the 1990s it also joined comparative activities initiated by the Organisation for Economical Co-operation and Development (OECD). In the following section a brief overview of completed studies is provided.

International studies carried out in the Czech Republic

Third International Mathematics and Science Study (TIMSS)

The IEA Third International Mathematics and Science Study (1991–1997) focused on student achievement in mathematics and science.[3] It was conducted at five grade levels[4] in 43 countries. The data collection took place in 1995.

[1] The *International Association for the Evaluation of Educational Achievement* (IEA) is an independent, international co-operative of national research institutions and governmental research agencies. Each educational system is represented by one organisation. At the present time, the IEA has 58 members. Its primary purpose is to conduct large-scale comparative studies of educational achievement, with the aim of gaining a more in-depth understanding of the effects of policies and practices within and across systems of education. Since its inception in 1958, the IEA has conducted about 20 research studies of cross-national achievement. The IEA studies focus on the output of educational systems – that is, the attitudes and educational achievements of students – and attempt to relate these outputs to those inputs that have an effect on them. At the heart of most IEA studies is a cross-national sample survey of student achievement in one or more school subjects. Student achievement is measured by administering objective tests to a sample of the students, who have been selected as representative of national populations. Information about the students' backgrounds, attitudes and interests is collected by means of self-report questionnaires. Questionnaires are also adopted for collecting information from teachers about their experiences, attitudes, and classroom practices, and from school principals about the characteristics of schools that the students attended. IEA operates at the primary and secondary level of schooling.

[2] Latvia, Lithuania, Russian Federation, Bulgaria and Romania.

[3] Science included physics, chemistry, and biology, and Earth science, which represents about one-fourth of the traditional Czech geography curriculum.

[4] The target populations were defined as follows: Population 1 – two grades that include the highest proportion of nine-year-olds (grade 3 and 4); Population 2 – two grades that include the highest proportion of thirteen-year-olds (grades 7 and 8); Population 3 – the highest grade of secondary school (in schools offering a four-year programme, fourth year, in schools offer-

Students were tested in mathematics and science, and extensive information about the teaching and learning of mathematics and science, home contexts, school characteristics and policies was collected from students, teachers,[5] and school principals from self-report questionnaires.

At the basic school level the content of the assessment represented an overlap of the math and science curricula of participating countries. The test consisted of multiple-choice and open-ended items.[6] A sub-sample of students at the basic school level also took a performance assessment test, which consisted of short experimental tasks that assessed the student's ability to design and perform an experiment and to make correct conclusions on the basis of gathered data.[7]

At the upper secondary level, students were tested in mathematics and science literacy,[8] and specialised tests in mathematics and physics were also designed for students with the highest portion of mathematics and physics in their curricula.[9]

The international co-ordinating centre of TIMSS was located at Boston College in Boston in the United States. In the Czech Republic, the study was co-ordinated from the Institute for Educational Research in Prague, and involved 500 schools, 16 700 students, 1120 teachers and 485 school principals.[10] In the TIMSS data collection in 1995 it was the first time that standardised tests had been administered in the Czech schools. The results of the study can be found in: Beaton et al. 1996a; Beaton et al. 1996b; Martin et al. 1997; Mullis et al. 1997; Mullis et al. 1998.

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ing a three-year programme, third year etc.). In the Czech Republic, all secondary schools offering at least two years of study were included in Population 3. The sample was stratified into two strata – gymnasiums and professional schools. In each population, sampling was done independently. A two-staged sample design was applied. The first stage consisted of a sampling of schools, and the second stage of a sampling of one intact classroom from each target grade in the sampled schools. In the Czech Republic, special education schools were excluded from the assessment.

[5] Teacher questionnaires were administered to mathematics and science teachers teaching in selected classes. Teacher data were not collected from teachers at the upper secondary level.

[6] Assessment frameworks were established on the basis of a detailed study of the textbooks and curricular documents of all participating countries. Open-ended items were marked by trained markers according to international standards. In each population test items were assigned to several student booklets that were randomly distributed to students. One scale was derived for mathematics achievement and one scale for science achievement. IRT methodology was used for scale construction.

[7] In the Czech Republic, the performance assessment test was administered in grade 8.

[8] It was a first serious attempt to introduce the concept of mathematic and scientific literacy into an international study.

[9] In the Czech Republic, these specialised tests were administered to all gymnasium students.

[10] The instruments were administered according to detailed international rules by trained employees of the Czech school inspectorate.

Third International Mathematics and Science Study – Repeat (TIMSS-R)

The IEA TIMSS-R (1997–2000) was a repeat of the TIMSS assessment among students attending grade 8. The main data collection took place in 1999. The tests were parallel to the tests administered in 1995. The questionnaires represented a slightly shortened version of the questionnaires administered in 1995. The assessment took place in 38 countries. Twenty-six of these 38 countries participated also in TIMSS 1995 which enabled these countries to measure the trends in their children's mathematics and science achievement and in the school and home contexts for learning.

The TIMSS-R was conducted by the International Study Centre at Boston College. In the Czech Republic it was co-ordinated by the Institute for Information on Education. The assessment took place at 150 schools and included 3600 students, 700 teachers and 148 school principals[11]. The sample was stratified according to type of school.[12] The results of the study can be found in: Martin et al. 2000; Mullis et al. 2000.

Reading Literacy Study (RLS)

The IEA Reading Literacy Study (1988–1992) was conducted in 32 countries. The main data collection took place in 1991. The Czech Republic administered the same study in 1995. The study aimed at measuring the level of reading comprehension in three areas: narrative texts, expository texts (continuous texts) and document texts (non-continuous texts: graphs, tables, maps etc.). The study focused on nine-year-old and thirteen-year-old students.[13] Although the test included few open-ended items, the international comparison was based exclusively on multiple-choice items.[14] Extensive information about reading instruction, home contexts and school characteristics and policies was collected from students, teachers[15] and school principals from self-report questionnaires.

The international co-ordinating centre of the study was located at the University of Hamburg in Germany. In the Czech Republic the study was co-ordinated by the Institute for Educational Research in Prague. The study involved 5520 students, 260 school principals and 260 teachers from 130 schools.[16] The results of the study can be found in Elley 1994.

[11] Administration was performed by the Czech School Inspectorate in exactly the same way as in 1995. Also, the scales were constructed in the same way as in 1999.

[12] The sample consisted of 90 elementary schools and 60 multi-year gymnasiums.

[13] The target population was defined as a grade with the highest proportion of nine-year-old and fourteen-year-old students. In the Czech Republic this included grades 3 and 8. The sample was drawn in two stages. The first stage consisted of a sampling of schools, and the second stage of a sampling of one intact classroom from the target grade in the sampled schools.

[14] All students responded to the same set of items.

[15] Teachers teaching the mother tongue in the classes selected for the study filled in teacher questionnaires.

[16] In the Czech Republic, only basic schools with both levels of basic education were included in the sample. In each school one class in grade 3 and one class in grade 8 were selected.

Progress in International Reading Literacy Study (PIRLS)

IEA PIRLS (1999–2003) followed the IEA RLS in a younger population.[17] It studied reading literacy and the experiences students have in learning to read, both at home and in school. The main data collection took place in 2001; the number of participating countries was 35. PIRLS assessed two reading purposes (literary and informational), and examined reading literacy behaviour and attitudes. The first aspects formed the basis of the written test of reading comprehension.[18] The second aspect, behaviour and attitudes, was addressed by the student questionnaire, which, together with the parents, teacher and school questionnaires, gathered information about home and school factors which are associated with the development of reading literacy, and about the larger context in which children live and learn.[19]

The International Co-ordination Centre of PIRLS was at Boston College. In the Czech Republic the study was co-ordinated from the Institute for Information on Education. It included 3022 students from 141 schools and their parents, and Czech language teachers.[20] The results of the study can be found in Mullis et al. 2003.

Civic Education Study (CIVED)

The IEA Civic Education Study (1994–2002) was carried out in two phases and included 28 participating countries. In the first phase, researchers in several countries conducted qualitative case studies that examined the context and meaning of civic education. The observations from the case studies were then used to develop an instrument for gathering information about students' civic knowledge and their civic attitudes and engagement. The main data collection took place in 1999. The standard target population included fourteen-year-old students.[21] The content domains covered democracy and citizenship, national identity, and social cohesion and diversity. The instrument consisted of five types of items measuring the students' knowledge

This means an exclusion of schools containing only primary level and multi-year gymnasiums. Special education schools were also excluded from the study. The teachers in the selected schools, who were provided with detailed instructions, administered the tests.

[17] The target grade was defined as the upper of the two adjacent grades with the most nine-year-olds. In the Czech Republic, as well as in most participating countries, this is the fourth grade. PIRLS used a two-staged sample design. The first stage consisted of a sampling of schools, and the second stage of a sampling of an intact classroom from the target grade in the sampled schools.

[18] Test items were assigned to several booklets that were randomly distributed to students. Three scales were constructed: reading overall, reading for literary purposes, and reading for information.

[19] Teacher questionnaires were administered to the teachers of the mother tongue. PIRLS was the only large-scale survey in education that also included a parent questionnaire.

[20] The tests were administered by teachers in selected classrooms.

[21] The standard population by definition included all students enrolled on a full-time basis in the grade in which most students aged 14 were found at the time of testing (grade 8 in the

of fundamental principles of democracy; their skills in interpreting political communication; their concepts of democracy and citizenship; their attitudes related to trust in institutions, their nation, opportunities for immigrants, and the political rights of women; and their expectations for future participation in civic related activities.[22] Questionnaires were administered to teachers and school principals.

Phase Two was co-ordinated at the Humboldt University in Berlin, Germany. In 18 countries an additional survey of students aged between 16 and 18 was also conducted. The instrument for this population was slightly but not significantly modified.[23] In the Czech Republic, the study was co-ordinated from the Institute for Information on Education. It included 6900 students, 376 teachers and 298 school principals from 300 schools. The results of the study can be found in Torney-Purta et al. 2001.

Programme for International Student Assessment (PISA)

The OECD Programme for International Student Assessment (1997–2007) was developed in the OECD INES project to produce indicators on student achievement on a regular basis.[24] In contrast to previous international assessments it does not concentrate on 'school' knowledge, but aims at measuring how well students perform beyond the school curriculum. Although the first assessment domains of reading literacy, mathematical literacy and scientific literacy are closely related to subjects learned at school, PISA concentrates on the value of the skills acquired beyond the school gates by applying literacy in a broader sense. It assesses young people's capacity to use their knowledge and skills in order to meet real-life challenges, rather than merely looking at how well they have mastered a specific school curriculum.

majority of countries). In the Czech Republic the sampling and administration of the CIVED study was combined with TIMSS-R study. Both studies tested the same students and were administered by the same members of the Czech School Inspectorate.

[22] All students were administered the same instrument. The test consisted only of multiple-choice items. According to IRT methodology three achievement scales were constructed: civic education overall, knowledge of democratic principles, and skills in interpreting political communication.

[23] The populations tested differed in grade (11 or 12) and in proportion of cohort covered by the study (0.39 to 0.99). The results are thus not strictly comparable between countries. In the Czech Republic, the additional survey included students in the third year of their secondary study (grade 12). The cohort coverage was 0.78. For this population an additional achievement scale of economical literacy was constructed.

[24] The aim of the initiative was to secure a regular supply of high-quality indicators for the publication Education at a Glance. The publication includes indicators on selected areas of education. Indicators on the students' achievement were previously derived from the data gained in IEA studies. This approach was regarded as dissatisfactory in a long-term perspective. The OECD stressed a policy orientation, while IEA studies had a rather more academic orientation.

The frameworks serving as a foundation for test development are not based on careful study of the school curricula of participating countries but on the opinions of distinguished authorities all over the world about what is important to learn in order to be well prepared for adult life.[25]

The assessment is designed for ten years. A measurement of student performance in reading literacy, mathematical literacy, and scientific literacy will take place every three years.[26] The first data collection took place in 2000. The second data collection is planned for spring 2003. Competencies across disciplinary boundaries are of growing importance in PISA as it develops over time. PISA 2000 analysed the students' approaches to learning and beliefs in their own abilities, motivation and engagement, and other aspects of student attitudes, under the heading 'self-regulated learning'. In 2003, PISA will specifically assess the ability of students to solve problems.

Extensive information was collected from students and school principals in self-report questionnaires. The main focus of the student questionnaire was to get high-quality information about the student's home background.[27]

Unlike previous studies, PISA does not test students attending one particular grade. The target population consists of students born in one calendar year. In PISA 2000, students born in 1984 were tested. In selected schools, students were selected randomly from among all the students born in 1984.[28] No intact classes were included in the survey.[29]

Twenty-eight OECD member countries and four other countries carried out the first PISA survey in 2000. Another thirteen countries conducted the same survey in 2002. PISA is co-ordinated by governments of participating countries and through OECD. The international co-ordinating centre is the Australian Council for Educational Research located in Melbourne. In the Czech Republic, the study is co-ordinated from the Institute for Information on Education.

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[25] Frameworks for individual testing domains were developed by expert groups that consisted of experts from various geographical and cultural regions, and were repeatedly reviewed by all experts and policy-makers from all participating countries.

[26] In each phase, one education domain will receive special attention. In PISA 2000, four scales in reading were derived (reading overall, retrieving information, interpreting texts, reflection and evaluation), one scale in mathematics, and one scale in science. All students received a score in reading literacy; two-thirds of the students also received a score in mathematics and/or in science.

[27] One of the main goals of the PISA study was to examine the equity issues. Thus, very detailed information concerning student home background was collected. Among other information, students also gave detailed information on their parents' occupations in an open-ended format that was later recoded to ISCO codes.

[28] PISA used a two-staged stratified sample design. The first stage consisted of a sampling of schools within each stratum, and the second stage of a sampling of 35 students from all students attending a selected school who were born in 1984.

[29] As no intact classes were tested, teacher questionnaires were not administered in PISA.

The main data collection in 2000 included 253 schools, 9400 students and 253 school principals.[30] In addition to the defined population, in the Czech Republic, students born in 1982 and studying in the third year of sampled upper secondary schools were also included in the study. The aim of this extended survey was to estimate the differences in performance of students leaving different secondary schools and to determine the 'value added' of these different tracks. More information and the results of the study can be found in OECD 1999, OECD 2000, OECD 2001.

Summary of findings

The findings of the international studies performed in the Czech Republic in the past decade cannot be directly compared or combined. Although the studies explored the same educational domains, their intentions and contents varied. Also, the target populations and sampling procedures were not identical. The main restriction impeding comparison is represented by the different set of countries participating in each of the studies.[31] All the limitations mentioned above prevent us from making detailed conclusions relating to the skills and knowledge of students in individual domains and their development over time. However, the information that was gained allows us to make several general conclusions, which are supported by a series of observations consistent across all the studies.

Achievement

In comparison with OECD countries the Czech compulsory school students attain average or slightly below-average results in reading literacy [Straková and Tomášek 1995, Straková et al. 2002, Mullis et al. 2003], average results in mathematics [Straková et al. 1996, Straková et al. 1997, Straková et al. 1998, Palečková et al. 1998, Palečková and Tomášek 2001] and above average results in science [Straková et al. 1996, Straková et al. 1997, Straková et al. 1998, Palečková et al. 1998, Palečková and

[30] The sampling frame included all basic and secondary schools because students born in 1984 were among basic school and among secondary school students. Also, for the first time, the special education schools were included in the study. The sample was stratified into the following six strata: special education schools, basic schools, multi-year gymnasiums, four-year gymnasiums, secondary technical and vocational studies concluding with a school-leaving examination (ISCED 3A), secondary vocational study concluding with vocational examination (ISCED 3C).

[31] The students' results are reported on scales that are based on data from all participating countries. In order to make exact comparisons with a subset of countries the data should be re-scaled. The plain ranking of a country that is sometimes reported is very misleading because the set of countries and the range of their students' knowledge vary significantly across various studies. For example, South American, Arab and African countries participating in IEA studies usually have much lower performance levels than OECD countries.

Tomášek 2001, Palečková and Straková 2002]. In a single-shot survey of civic education Czech students achieved results close to the average [Křížová et al. 2001, Procházková and Raabová 2002].

The results in reading literacy are consistent over time, showing a slightly better performance among students in primary school than students in higher grades of compulsory education. For Czech students it is easier to work with non-continuous texts than with continuous ones. They have difficulties with retrieving information from expository texts and with reflecting on the form or content of the texts.

The results in mathematics and science showed a decline between 1995 and 1999 in both subjects, while in mathematics the decline was statistically significant. This decline could be explained by the fact that in 1996 the basic school was extended by one year. Some topics were not covered at the time of testing, as the curriculum had become less rushed than before, when students were expected to acquire all important skills and knowledge by the age of fourteen. The students that were assessed had also not yet reached the period of preparation for the entrance examination into secondary school, at which time they review all content covered during compulsory school study.[32]

Czech students achieve better results in the tasks requiring factual knowledge or the application of routine procedures. Conversely, they fail in the tasks requiring the application of knowledge and skills in an unknown context requiring independent thinking and creativity [Sekce měření výsledků vzdělávání 2002].

The findings cited above correspond very well with the structure and emphasis of the Czech education system. The scientific subjects traditionally receive a great deal of attention and are heavily represented in the Czech curriculum. Conversely, the mother tongue receives less attention than in other educational systems.[33] The curriculum for the Czech mother tongue stresses grammar. Skills like reading comprehension, reasoning, or taking a critical stance are not being developed in Czech language classes. Students are also not encouraged to read and argue in other subjects. The fact that the Czech basic school curriculum is overloaded with factual knowledge and does not pay enough attention to independent thinking and creativity has been widely discussed during the past two decades. However, factual knowledge still dominates in the classrooms and is generally viewed as the main outcome of the education process. Factual knowledge is also the core of entrance

[32] In 1995 students tested in TIMSS were in their last grade of basic education and were in the stage of preparation for entrance examinations for secondary schools. They studied mainly mathematics and Czech language and were reviewing also all main basic school subjects. This period is usually accompanied with higher effort in all subjects because for entrance procedures students need good marks.

[33] For example, PISA 2000 showed that Czech fifteen-year-old students have on average 5 science lessons per week, while the OECD average was 4 lessons. The mathematics lessons were close to the average (3.7 in the Czech Republic, 4.0 is the OECD mean), lessons in the mother tongue were less frequent (3.6) than the OECD mean (4.2).

examinations at both the secondary and tertiary level. Teachers in basic and secondary schools stress factual knowledge because they feel responsible for preparing the students for the entrance examinations, and they are also often evaluated according to their students' success.

Inequalities

Gender differences

Huge differences between Czech boys and girls – favouring boys – were found repeatedly in science and mathematics. Somewhat smaller differences – favouring girls – were discovered in reading literacy. No differences were found in the field of civic education. The gender differences in mathematics and science in the Czech Republic are among the largest to be found in the OECD countries. As in many other education systems, in the Czech Republic gender differences also increase with age. Despite these gender differences girls have better marks at school in all the tracked educational domains.

Although the large gender differences between boys and girls in science and mathematics were repeatedly pointed out in connection with the international surveys in this field, the issue has not received any attention from either policy-makers or the public.

Differences between students attending different types of schools

The surveys repeatedly reveal large differences in the achievement of students attending different types of schools [Sekce měření výsledků vzdělávání 2002]. At the lower secondary level there are large differences between special education schools, common basic schools, basic school classes with extended curriculum in a particular subject (for example, classes specialising in foreign languages) and six- and eight-year gymnasiums. At the upper secondary level there are large differences between students attending six- and eight-year gymnasiums, students attending four-year gymnasiums, students of technical secondary and students of vocational secondary schools. Analysis of the data gained in the PISA 2000 survey showed that the Czech Republic ranks among the countries where the students' results and the type of school attended by the students are strongly dependant on the education and occupation status of their parents [OECD 2001, OECD 2002]. In the Czech Republic, students are highly differentiated along socio-economic lines. The educational system is very selective and the selection starts at a very young age. The Czech Republic belongs among the OECD countries with the highest percentage of students educated in special education schools [Keydata 2002].[34] In the tables com-

[34] More than 5% of the age cohort.

paring the age when the first selection takes place, the Czech Republic, with the first selection at age 11, is situated just behind Germany and Austria, with the first selection at age 10. However, these comparisons do not take into account the fact that Czech students sit their first entrance examinations at the age of 8, when they apply for classes specialising in foreign language education. These classes are attended by about 10% of the age cohort.

Neither the structure of the educational system nor the teaching methods and attitudes facilitate the mediating of disadvantages caused by the student's home background. According to PISA 2000, Czech teachers do not give the students enough personal care. The vast majority of Czech students reported that they did not receive personal support from their teachers and that the teachers were not interested in their students individually.

The international studies show that students at the end of vocational studies have insufficient general education in all main education areas [Straková et al. 1998; Straková et al. 2002; Procházková and Raabová 2002]. This is particularly striking owing to the fact that, in all the studies described above, the students were not required to demonstrate academic knowledge and competence, but rather their ability to solve problems related to real-life situations (for example, tasks related to renting an office or painting a bridge in TIMSS 1995, tasks related to labour market situations or shopping in PISA, tasks investigating economic literacy in CIVED). As was mentioned above, Czech students are expected to acquire all important skills and knowledge at the compulsory-school level. After that, only students attending academic secondary schools (gymnasiums) continue with a full general education. The studies show that the quality of education received by vocational students deserves more attention, as these students constitute about one-third of all secondary school leavers.

National Activities

In the Czech Republic, students do not take any standardised tests during their educational careers. Nor has any system for regularly monitoring educational outcomes been established.[35] Two attempts to perform limited monitoring using tests were performed by the Czech school inspection at the beginning of the 1990s. Also, there is no state programme that focuses on the assessment of the results of individual schools. Quality control is the responsibility of school inspectors who pay regular visits to each school.

Nevertheless, there are two non-state evaluation agencies that have been operating since the mid-1990s, which carry out assessment activities at schools on a

[35] Quality monitoring and standardised testing are not common in Central European countries, except for Hungary, which has run a national monitoring system since 1995. Hungary regularly tests sub-samples of selected age groups to get information about the level of student knowledge in selected subjects and their development in time.

voluntary basis, and schools that decide to undertake such assessments cover the costs of participation. The agencies (KALIBRO and SCIO) offer the schools the opportunity to measure their outcomes comparatively. The assessment instruments include the following subjects or study areas: Czech language, mathematics, social sciences, science, English language, German language and an aptitude test. Participating schools receive results for their school overall, and for participating classrooms and individual students. The SCIO agency also organises a comparative testing for individual students, to give them an opportunity to compare their knowledge in chosen subject areas with students from throughout the country.

In 2001, a White Paper was published that proposed changes in educational policies, including those regarding standardised examinations and national monitoring. A preliminary decision to introduce a written standardised component into the secondary-school-leaving examinations (*maturita*) in order to ensure the comparability of education provided by individual schools, as well as to simplify the entrance examination for tertiary education, was made by the Ministry of Education in 1997. In 1997, a pilot test on a limited sub-sample of schools was conducted. In 1998 and 1999, a full sample of all students taking the school-leaving examination was included in the pilot study. In 1998, the students took an aptitude test, a Czech language test, an English or German language test and a mathematics test that had two levels of difficulty. In 1999, the aptitude test was not administered. More than 100 000 students from more than 1700 schools participated in the pilot studies. Limited information about the home background and educational career was also collected from these students. The analyses of the data from the pilot studies confirmed the findings from international surveys [ÚIV 1998].

Since 2001, the school-leaving pilot testing has become voluntary. The schools can download tests from the Internet and administer them independently. According to a statement of the Minister of Education in February 2003, the standardised component in the school-leaving examination, if approved by Parliament, will become a part of the examination in 2008. More information regarding national assessment activities can be found in Krampová and Straková 2001.

Conclusion

In this report, we gave an overview of all important initiatives in the field of educational assessment that have taken place in the Czech Republic since 1990. We also summarised the main findings of international comparative studies. The findings, together with indicators available in comparative publications like Education at a Glance (OECD), Keydata (Eurydice), Statistical Yearbook (UNESCO), provide a very complex picture of the strengths and weaknesses of the Czech education system and offer guidance for decisions relating to its desirable development. This is the information for policy makers. The scientific community is encouraged to make use of the data sources for further studies. The data sources, without any doubt, have

yet to be fully exploited, and valuable information is still available in the data. International surveys in educational measurement can also serve education specialists as a rich methodological source for national activities in this field.

JANA STRAKOVÁ *is a researcher at the Institute of Sociology in Prague. She specialises in comparative studies in education. She co-ordinated most of the international studies of educational achievement that have taken place in the Czech Republic during the past ten years.*

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W. Hutmacher – D. Cochrane – N. Bottani (eds.): *In Pursuit of Equity in Education: Using International Indicators to Compare Equity Policies*
Dordrecht – Boston – London 2001: Kluwer Academic Publishers, 378 p.

In Pursuit of Equity in Education addresses the issue of inequality and inequity in access to education, with a particular emphasis on the role of educational policies. It does so by providing an overview of the main theoretical approaches to the issue and an inventory of existing indicators on which the research, political debates and policies have been centred, and by proposing an internationally comparable system of quantitative indicators. These indicators should permit a "comparison, measuring and monitoring of the relative educational inequalities across diverse education systems, each with its own historical, cultural, institutional and political background" (p 16).

Why is it that there is such an interest in examining equity in access to education? Why have inequality and equity in education become the focal issues in the most developed countries, where a rapid expansion of average educational attainment has been experienced over the past decades and in many of whose societies there has been a significant trend towards equality in education, measured as the dispersion of years of schooling, and where statistics also show that previously disadvantaged social groups (women, lower classes) have experienced the largest gains in the course of the expansion? The answer is obvious: these by all means positive developments did not bring about equality of educational attainment among relevant social groups, particularly among social classes and various ethnic groups. On the other hand, in an open and 'meritocratic' society, success in education contributes significantly to intergenerational mobility and occupational career. Higher education still leads to higher incomes and a higher standard of living, reduces the risk of unemployment, and implies a longer life expectancy. All in all, higher education has become a primary tool for life-success and this trend will continue as the knowledge-based economy takes its hold.

The volume consists of four parts and a total of fifteen chapters written by twenty-one authors from different countries (most of the authors belong to the INES /International Education Indicators Project/ working group). The first part is an overview of the main theoretical approaches and conceptual issues, as perceived by sociologists, political philosophers and educational researchers. The second part proposes and justifies an equity indicator system and introduces the current positions and results of OECD and UNESCO. The third part of the book compares the equity of educational systems in an international context, while the fourth part presents several examples of work with the internationally comparable system of equity indicators in educational policies.

First of all, the volume clarifies the semantic difference between the terms *equity* and *equality* (Introduction and Chapter 7). Not every inequality in education is by definition inequitable: it can be due to differences in intelligence, individual effort, achieved school results and knowledge, which are certainly factors that considerably predetermine our further educational career and open different doors. While the terms *equality* and *inequality* establish a state of equivalence or difference, often described in social sciences using Bourdieu's concept of capital (its forms and mutual conversion), i.e. the issue of 'objective' advantage or disadvantage, the concepts of *equity* and *inequity* have a more ethical or moral quality, aiming at verifying the fair distribution of these advantages or disadvantages. The question we are dealing with is thus which of the inequalities are unfair and why they are perceived as such.

Part I: Theoretical approaches and conceptual issues

Benadussi (Chapter 1) gives an overview of the most significant sociological theories (with their research lines) dealing with inequality in approaches to education, beginning in the 1960s (e.g. Floud and Halsey, Coleman, Bourdieu and Passeron, Boudon, Jenks, Husén etc.). He suggests that it is a major social problem, since social differences have such a momentous effect on the outcome of the formal educational process. He concludes that although no theory has proved itself to be the single right one, the empirical research, including the most recent international comparisons of trends, has proved that equalisation in education is a possible, though difficult to achieve, goal. Benadussi, using Bourdieu's concept of capital, developed an explanatory model as a framework for concepts of educational equity, which is suitable for serving as the basis for relevant statistical indicators and measures.

Demeuse, Crahay and Monseur (Chapter 2) show the difficulty of the co-existence in modern societies of such concepts as liberty, equality, responsibility, effectiveness (absolute and relative) and efficiency. According to the authors, it is effectiveness that occupies the central place in the problem of equity. They also claim that there can be no effectiveness without equity, which means that practices which are shown as ineffective (such as the homogeneous grouping of students) must be changed, obviously with regard to the objectives of the system.

Meuret (Chapter 3) argues that educational inequalities must be considered as avoidable, in order to be considered inequitable. But how do we know which inequalities are still tolerable and according to which criterion we can consider equality to be equitable? Meuret gives an account of what existing theories of justice say about educational inequality and draws on new developments in political philosophy since John Rawls. He also demonstrates the principles of equity used in existing educational systems and formulates a type of quantitative indicators that allows us to measure equity from the point of view of different interpretations of social justice.

Cochrane (Chapter 4) describes the situation and problems of education in the US. He mainly points to the process of segregation, based on race, ethnicity and poverty, which in American history was also applied to schools. The basic question thus reads: can schools teach and students learn beyond expectations set by parental backgrounds? The answer is that both are possible, as numerous research studies have shown. The question, though, remains as to what mechanisms would be the most effective in the removal of the initial disadvantages of certain children, which still requires further experimental research (summer and after-school programmes, class-size reduction, socio-economic mix in schools etc.).

Part II: Equity indicators: a framework, a rationale and current perspectives

Meuret (Chapter 5) puts forward a systematic approach to the issue of educational inequalities and inequities, taking into account the input, process and output of educational systems, as well as the specific socio-economic situation in the given country. Meuret tries to propose a system of indicators permitting a comparison of educational systems with respect to their equity, using nine principles; e.g. among the categories pertaining to individuals, the most important are those from which individuals cannot escape.

Orfield (Chapter 6) presents the role of race and poverty indicators in American education. He maintains that the addition of data and indicators about poverty and race to education statistics has substantially enriched ongoing debates about educational inequalities and their possible solutions (school de-segregation, bilingual education for immigrants). He further remarks that the condi-

tions that relate to class are often treated as impacts of race, which is why it is essential to be able to look at the ways in which ethnicity and poverty interact. However, for the data to have real impact, they must be made public in a form people can understand.

Healy and Istance (Chapter 7) list the indicators that show the level of inequality and inequity of various educational systems. They maintain that the measures that demonstrate, in precise terms, the distribution of education and learning in any country, and that show whether progress is being made or not, are surprisingly sparse. They quote, for example, the results of the following surveys: TIMSS (Trends in International Mathematics and Science Study), IALS (International Adult Literacy Survey) and PISA (Programme for International Student Assessment), and also refer to one of the most important regular reports, *Education at a Glance*, published by the OECD.

Cavicchioni and Motivans (Chapter 8) describe the worldwide process of asserting human rights and the fight against poverty, with a special emphasis on less developed countries. They underline that every child's right to education is provided for in the Convention on the Rights of the Child, which became internationally binding more than fifty years ago. The signatory states committed themselves to providing children with a certain level of education, and in this context it became clear that educational inequalities are a problem relevant to the educational systems of all countries in the world.

Part III: International comparisons on equity issues

As Hutmacher stresses in his introduction, until recently the stock of 'human capital' was measured through the distribution of educational attainment levels among the adult population, but nowadays it is accomplished through the direct measurement of skills and competencies. Comparative surveys of the latter nature are used in Part III for the analysis of the inequality of educational opportunity – particularly TIMSS (Chapters 9 and 11), IALS (Chapter 12) and other OECD surveys (Chapter 10). At the time of writing, results from the first PISA survey were not yet available, but as the survey includes an internationally comparable measure of students' socio-economic family background, it will certainly be a great source of information on equity issues.

Vandenberghe et al. (Chapter 9) ask the question of whether or not there is an effectiveness-equity trade-off. In their empirical analysis, the multidimensional concept of equity is represented by two dimensions – socio-economic (SES) family background and gender. They use results from the Third International Mathematics and Science Study (TIMSS 1995) database and conclude that there might be no effectiveness-equity trade-off. Some countries or regions succeed in ensuring a relatively high achievement level on average, without showing a high sensitivity of achievement relative to SES. By contrast, other countries display poor results with regard to both criteria (p. 250). Further, they document the existence of a growing gender gap, especially in science.

Vandenberghe (Chapter 11) also uses TIMSS data to point out the importance of social interactions at the school and classroom level ('peer effects') as determinants of achievement. Empirical evidence from TIMSS 1995 reveals the importance of peer effects, but also suggests that their intensity may be subject-dependent. In this context, the author distinguishes two contradictory approaches: on the one hand, segregating skill-grouping practices ('tracking' in the US or 'streaming' in the UK), and, on the other hand, de-segregated classrooms (also called 'mixing' or 'whole-class instruction'). The role of peer effects from these points of view calls for further analysis.

In their comparative analysis based on the data from the IALS surveys from 1994 and 1996, Noël and de Broucker (Chapter 12) emphasise intergenerational inequalities in

three dimensions: (1) inter-familial inequality; (2) inequality between the sexes, and (3) inter-cohort inequalities. In their study, the notion of cultural capital is reduced by constraint of the data on parents' education.

Peter Evans (Chapter 10), in his paper called *Equity Indicators Based on the Provision of Supplemental Resources for Disabled and Disadvantaged Students*, presents OECD international comparative data from studies relating to the education of students with special needs (those physically disabled, but also those disadvantaged by other factors, such as social, ethnic or cultural origin) in terms of overall resources provided, place of education – i.e. special schools, special classes in regular schools, or regular classes in regular schools – and gender.

Part IV: National policies and the use of indicators

While in Part III examples are given of the indicators used for an international comparison with regard to the problem of equity, Part IV emphasises mainly policies that intend to make education systems more equitable. Chapters 13 and 14 introduce national policies implemented in Sweden and in Flanders, and the last chapter presents a system of indicators that can be used by policy makers. Sweden and Belgium are countries that show both high effectiveness and low socio-economic inequality levels, which is why their national policies are introduced in this part of the book.

At the turn of the 1980s and the 1990s, the Swedish school system was decentralised, which always brings about certain risks – not only that of increased cultural particularisation of individual schools, but also that of greater inequality in resources and in the quality of learning conditions in different schools. Wildt-Persson and Rosengren (Chapter 13) confirm that it is still the state's responsibility to guarantee the equity of education. Among other policies, they refer to the idea of 'equivalence in schools', which was recently introduced by the Swedish Education Act. The concept of equivalence is divided into three aspects: (1) equal access (prerequisites), (2) equivalent education (process), and (3) the equal value of education (results). Equivalent education with respect to the learning process does not require that educations be 'identical', but of 'equal worth', which essentially means having 'equal effects'. Their paper underlines the importance that the government has attached to national and local follow-up and evaluation.

Dewitt and Van Petegem (Chapter 14) describe three major equity policies pursued in Flanders in the past three decades: educational priority policy for immigrant children, the democratisation of secondary education, and opening up higher education to the masses. However, they remark that these policies, focusing on education as such, should be accompanied by the broader concern of policy-makers in other fields, such as the economy and welfare.

Douglas Cochrane (Chapter 15) describes persisting inequalities between different metropolitan areas in the United States. He argues that the residential neighbourhood in which students live should be studied as an environment that influences educational outcomes. Therefore, he proposes a set of geographic and demographic indicators for studying disparities in educational resources internationally, as well as in the United States.

If the educational system of a given country hinders equal opportunities in attaining education, it also hinders equal opportunities in attaining a higher social status as a potential reward for the individual's effort. The problem of unequal and inequitable approaches to education is a crucial one, and it leads not only to an inefficient use of human resources, and thereby to the reduced competitiveness of the economy, but also to unfair social and cultural inequalities, challenging the legitimacy of the social system as such.

There are many important messages in this volume, which should not be overlooked by those who are responsible for educational systems and policies in their countries, and in this capacity, as educational policy-makers and/or leaders, they should take the issue of equity in education seriously. One message, however, is to be particularly emphasised here: equity in education has again become one of the most important and sensitive issues in almost all advanced countries, even though – in the course of the past several decades – they had achieved significant progress in reducing inequality in access to higher education. Most of the post-communist countries are still delayed in taking this challenge seriously, though educational inequality in these countries is higher than in most of the advanced countries, and, as some analyses have indicated, it tends to be growing rather than diminishing. Therefore, in these countries, this volume should become one of the basic textbooks in the sociology of education and educational policy, with the great hope that the new generation of policy makers will be more perceptive to the issue of inequality and equity in education than their predecessors.

Natalie Simonová
David Greger

Linda Woodhead – Paul Fletcher – Hiroko Kawanami – David Smith (eds.): *Religions in the Modern World. Traditions and Transformations*
London – New York 2002: Routledge, 393 p.

Broadly speaking, the scientific study of religions in Central Europe (not only post-communist) has usually oscillated between two main perspectives. It has centred either on the historical study of religions, i.e. the study of the development of their theologies and their attitudes toward the state and society, or on a comparative study of different religious practices (in the sense of the German *Religionswissenschaft*). Both these perspectives have rich historical roots, but they now seem quite old-fashioned. Nowadays, this situation has unfortunately led to the conviction that the study of religions "cannot be concerned with [for example] modern Western esotericism" (Hugo Stamm: *Achtung Esoterik. Zwischen Spiritualität und Verführung.* Zürich – München 2000: Pendo Verlag, p. 35–36), which is certainly one important manifestation of modern 'unofficial' piety. If this were true, one must ask why governments and NGOs have paid for the study when there are no up-to-date results to be had from it?

I am convinced that our undergraduates will be able to be successful in the public or business spheres only if we are able to teach them about contemporary issues and not just historical ones. Of course, the majority of religious traditions have important historical roots, and their sources and resources sometimes lie deep in the past. But while these foundations are of consequence, they teach us quite little about the modern and contemporary metamorphoses of religions. Therefore, for future civil servants or business agents, knowledge about the foundations of Christianity or any other religions is much less useful than knowledge of their contemporary social and political impact in different countries or social groups. As a leading American sociologist of religions and culture, and one of the contributors to the *Religions in the Modern World. Traditions and Transformations*, Peter L. Berger has stressed that scholars "should pay less attention to Iranian mullahs, and more to Harvard professors and to ordinary people in London or Paris" (p. 294). And the very same is true for the above-mentioned overemphasis on history. This is why one must strongly welcome this book, edited by four Lancaster scholars, as it is primarily concerned with – unlike the vast majority of other *prolegomena* to religious studies – the contemporary state of religions. Broadly speaking, it focuses on the sociology of religions, a subject which was

largely neglected in Europe during the last half of the 20th century (although it featured work from great predecessors, like M. Weber, E. Troeltsch and others).

The book is divided into two parts. The first and longer part (p. 13–288) is mainly descriptive and deals with twelve different religious traditions and their actual development. The second part analyses five main topics and moves on to cover the contemporary religious, social and cultural scenes, and issues that are shared by all religions (p. 289–377). One could question the selection of the most important religious traditions – they include the so-called world-religions (like Buddhism, Christianity or Islam), the religious traditions of certain geographical areas (Africa, China, Japan and the religions of Native Americans), and two main 'new' religions – New Age and the New Religions Movements (NRMs). Why, for example, does the selection include Sikhism and not Jainism, which is usually mentioned among the world-religions (which is not true of Sikhism), when both traditions have a similar number of adherents? The answer lies in the sociological perspective of the book; while a great number (about one-half of the population) of Sikhs are influential worldwide, Jainist promises of *stabilitas loci* make it impossible for them to travel or even migrate. So Jainism, regardless of how interesting its theological content is, has become important only to the Indian and not to the general study of religions. This perspective is widely overlooked by many scholars (who are rooted not in *sociology* but in the *history* of religions in quite a narrow sense).

For similar reasons I must emphasise the carefulness and quality of the selection, with its attention both to geographical areas that have been the subjects of special developmental circumstances and to the 'modern traditions'. In China, for example, many different religions have become eclectically mixed, or 'Sinicised', so there is no reason to speak separately about Confucianism, Buddhism or even Christianity in China, but rather simply about religions (or religion?) in China as such. Also, the distinction between New Age religions, which have nowadays become a mainstream 'cultic milieu', and the different, much more particularistic NRMs, is of important analytical significance. That is to say, the emphasis on the contemporary situation (while in all cases the authors also briefly refer to the historical development of the traditions and their resources) both leads to significant questions being addressed and provides a general overview of the main religions of our time.

There are some misunderstandings or even errors in these chapters, but they are much fewer than in other similar books. These misunderstandings usually spring out of the struggle to 'translate' non-Western terms and beliefs with Western words; for example, using the term 'enlightenment' in the case of Buddhism (p. 44; I would prefer to talk about an 'awakening'), or the term 'sect' in the case of Japanese religious schools (p. 115). Fortunately, given the fact that the book is comprised of contributions from seventeen prominent scholars, these questionable issues appear quite marginal. Consequently, the book should prove essential reading for anyone wishing to study religious traditions and their contemporary manifestations and changes. Five papers in the second part of the book constitute an even more important contribution to the field of study. They present findings of interest not only to scholars of religious studies but also to all sociologists, social anthropologists, political scientists and others, who are trying to understand (post)modern society.

P. L. Berger emphasises the contemporary 'desecularisation' of many societies and the two main exceptions to this development (Western Europe and the highly skilled elite), while also pointing out that the belief in an inevitable connection between pluralisation and secularisation certainly needs revising (p. 296). The Cambridge scholar David Lehmann stresses that globalisation means not only the homogenisation of cultures but also the proliferation of new and reformulat-

ed boundaries, in the process of which religion plays a prominent role (p. 299–311). It was this very development that led recently to the formulation of the hypothesis of 'many globalisations' by P. L. Berger, S. Huntington and others (*Many Globalizations. Cultural Diversity in the Contemporary World.* Oxford – New York 2002: Oxford University Press). Lehmann also distinguishes between two religious globalisations. The first, a 'cosmopolitan' globalisation of religion, was characterised by the far-reaching spread of different kinds of European Christianity; it predated modernity, and it is still vital today. The second form of globalisation, usually labelled 'fundamentalist' or 'charismatic', runs counter to the trends of our own times, and is "driven not by elites but by a mass of independent actors, who pick and choose elements from different cultures" (p. 299). This second globalisation can be characterised by its great ability to adopt local customs (which reinforces the above-mentioned 'heterogenisation'), and by the important aspect of coping with social ills by means of emphasising the practical ethic (an obsessive attention to the control of sexuality is one example, while the reduction of *machismo* in Central America is another). A similar issue, the religious comeback on the public scene and in politics, is studied by Jeffrey Haynes, who underscores the differences between the so-called First and Third Worlds (p. 316–329).

Linda Woodhead, chief editor of the book, draws attention to the role women play in contemporary religions (p. 332–352). She mentions the same distinction Haynes does, but she is also aware of the misunderstandings that the second wave of feminism (which started the scientific study of gender relations) left on this kind of study (p. 332). For this reason she argues that "contemporary *Islamism* [as well as charismatic Christianity, see p. 350–351] serves many Muslim women as an indigenous form of feminism" (p. 346), a point of view that unfortunately is certainly not common among Western fighters for 'universal civil rights'. Also, according to Woodhead, the success of some NRMs can be explained by their appeal to single women (a category almost unknown in traditional society), who are marginalised by the so-called world-religions.

Last but not least, there is the contribution by Paul Heelas on the present move from (organised) 'religion' to a broader and more individual 'spirituality' (p. 357–374). This shift has witnessed a great expansion of new spiritual outlets, books, journals (or 'astrological corners' in journals and newspapers) and TV channels over the past twenty or thirty years. In brief, (post)modern de-traditionalisation may be understood as a turn to the self, while the ultimate authority is ascribed to one´s own reason, conscience or intuition (in some cases dealing with sacral texts), rather than looking to a transcendent authority. Heelas finds this shift not only in the NRMs and in the widespread 'cultic milieu' but at the same time among the traditional churches, too. The ultimate authority (which he calls the 'HS factor', p. 370) in all cases promises release from the wrong kind of selfhood to the best possible life in the here-and-now. (And from this point of view it makes no difference whether 'HS' means the 'higher self' in the New Age or the Holy Spirit in charismatic theistic spiritualities).

As I have already noted, while the first, descriptive part of the book is useful, the second, analytical part deals with the most important issues of our time. It is thus of great significance for sociologists who need to update their knowledge by using the latest perspectives in the study of religion. While the Anglo-Saxon scholars do so (and the book reveals this very well), the situation of Central European scholarly unfortunately seems to be just the opposite. Therefore, one may strongly recommend a careful reading of this synthesis. Of course, there are some important topics that the editors overlooked. I could mention, for example, relations between piety and art, which seems to be an important topic in modern societies (see e.g. Mircea Eliade: *The Quest. History and Meaning in Re-*

ligion. Chicago – London 1969: University of Chicago Press, p. iii, 65), the issue of the so-called secular/implicit religions, which includes not only totalitarian ideologies but also modern science (see Mary Midgley: *Evolution as a Religion. Strange Hopes and Stranger Fears.* London – New York 2002: Routledge), and others. The latter overlooked topic would be of great importance to the post-communist societies, especially over the course of the enlargement of the European Union and the contemporary discussion on common 'European values', but it must not be addressed from only the narrow historical perspective (as it has begun to be done, for example, by René Rémond: *Religion et société en Europe.* Paris 1998: Éditions du Seuil). Here I am coming back to the issue I started my review with – the importance of changing the over-historicised and the exclusively elsewhere-centred perspective in Central European science. The book I have described in these lines would thus seem an important contribution to our theoretical and methodological struggle for a genuinely modern scientific study of religions and their social impact.

Zdeněk R. Nešpor

Tomáš Kostelecký: ***Political Parties after Communism. Developments in East-Central Europe***

Washington, D.C. Woodrow Wilson Center Press; Baltimore – London 2002: The Johns Hopkins University Press, 213 p.

Kostelecký's book comes across as impressive. The Contents of the book catches the reader's attention with its interesting selection of subjects and logical ordering of the text into six chapters: 1. An Overview of Party Development (1850–1989); 2. A New Day: Parties in the Post-Communist Period (1990 to the Present); 3. The Party System: A Product of a Country's History and Culture? 4. The Party System: A Reflection of Social Cleavages? 5. The Party System: A Product of the Rules of the Game? 6. Political Party Development in Post-Communist East-Central Europe: In Search of General Patterns. The potential reader is also drawn in by the book's ambition of dealing with four countries in Central Europe – the Czech Republic, Hungary, Poland and Slovakia: "This text looks at party development in the post-Communist era in East-Central Europe from a comparative perspective, thereby avoiding the traditional concentration on domestic problems... In doing so, it examines the relationships between party development in the post-Communist era and the underlying historical, cultural, socio-economic, and juridical factors, and then assesses the importance of those relationship both in each country and in the region as a whole." (p. 6) The task perhaps could not have been formulated in a more attractive manner, or in a more exacting and extensive one. Given this fact, and given the limited amount of space to work with, the reviewer is unable to look at all four of the countries, but must limit the focus here to only the Czech Republic and the overall extent to which the author has fulfilled his aim.

The book presents the four countries, especially in the first three chapters, with the aid of parallel descriptions rather than analytically or in a comparative analysis. The descriptive parallels also dominate in the ensuing chapters in which the author considers the presented information in greater detail. For the most part the information is interesting, and thus the reader need not always notice that the text is actually dealing with something other than what was indicated in the Contents or Introduction. According to these, the text should be looking at political parties, but in fact it is discussing the individual countries in general and the various problems the countries are experiencing, which here includes the rate of abortion, even though it could not always be said that this is a subject that is usually dealt with in relation to how political parties are organised and function. In the book, the usual termi-

nology, perspectives and approaches whereby the subject of political parties is typically formulated, analysed and presented, are not employed.

This is caused by the approach the author has chosen to take and the method he uses to tackle the subject. The subject cannot be addressed without the appropriate terminology and a starting, defined, interpretative frame of reference, sustained by one of the theories or models of democratic transformation, which would systematically structure, limit, and focus the subject into comparable sub-topics and sections while preserving their generalising capacity. Owing to the absence of any principle of this kind, despite the author's attempts at a certain logic, the country facts and the material often relate to the subject of political parties only remotely. In this situation it is possible to speak of a comparison in the metaphorical rather than the methodological sense; the topics and information on the individual countries are often presented disproportionately and subjectively.

The use of perspectives and terms that are not clarified, obstructing an adequate assessment of the information, at times leads to a certain kind of disinformation for the non-Czech reader. When the author, for example, relatively broadly deals with Moravian regional parties, which at the end of the 1990s were almost unknown, as a part of the party system, and presents them as an example of Rokkan's centre-periphery cleavage, "although the Czech Republic is more ethnically homogeneous than Slovakia..." (p. 95), he seems unaware that the data dating from the years 1990 and 1992, which he uses to support his arguments, are not informative of the party system or the way the political system functions, but are informative rather of the political maelstrom in which various political parties were constituting themselves from the top down, and whereby the amorphous and unstable Civic Forum, i.e. a mass movement – not a political party – was taking shape. In a number of other places the author reports on the details of the countries addressed herein during the first years of the democratic transformation in the context of a fully fledged political system, in which it is possible with relative ease to clearly identify Rokkan's cleavages, and he does not realise that at that time both systems were still just emerging.

The subject area from 1850 up to the present cannot be addressed to a satisfactory degree without German – and in the case of a Czech author also Czech – sources and literature. Despite the extensive domestic literature on the indicated period, the author also, and especially for earlier periods, draws uncritically on foreign literature in English. The result is an entirely distorted picture of the Czech and Slovak level of research and particularly of some Czech and Slovak topics and facts, on which distorted interpretations or direct evaluations, drawn from the anti-democratic criticism of the 1930s and 1940s, and even the 1950s (communist ideology), have circulated for years abroad, and which have ultimately evolved into generally accepted stereotypes. For almost sixty years Czech researchers were unable to react to these stereotypes in an international forum and owing to censors and closed archives they were unable to even professionally address these subjects.

One of the more widespread stereotypes is that of The Five, as a sort of junta of political parties restricting Czechoslovak democracy. T. Kostelecký accepts it: "Among them [Czechoslovak parties] the most powerful were the five parties *Pětka*, The Five...". "For most of the period, the strongest party within the Pětka ...". (p. 21) In reality, The Five was an unofficial institution of talks between the leaders of the five main parliamentary parties on parliamentary tactics, which on the contrary contributed to the strengthening of democracy. It emerged out of the predicament parliamentarism was in during the early post-war years of the new state. It was by no means specific to the Czechoslovak Republic, and as it lasted from 1920 until March

1926 it cannot even be considered as a systemic characteristic of the political system of inter-war Czechoslovak democracy. (For more, see Eva Broklová, *Czechoslovak Democracy, Political System ČSR 1918–1938*, Prague 1992, p. 45–46, in Czech, with an English and German summary.)

The author overlooks altogether other fundamental Czech works on the given subject, for example, one large study by Lubomír Lipták et al.: *Politické strany na Slovensku 1860–1989* (Political Parties in Slovakia) (Bratislava 1992), and the quite extensive study by Pavel Marek et al.: *Přehled politického stranictví na území českých zemí a Československa v letech 1981 až 1998* (Political Partisanship Survey in the Czech Lands and in the Czechoslovakia), (Palackého univerzita, Olomouc 1998), on political parties in the Czech lands from the mid-1990s. But, as far as the Czech subject area is concerned, even in English the author draws on only partial studies. He positively evaluates the *concept of multidimensional social status* [Kostelecký 2002: 107], and presents authors who have made use of this concept (Lenski 1954; Kolosi 1984; Machonin et al. 1996), but he neglects to cite one basic study – about twenty years older – of Czechoslovak sociology, a macrosociological, computer-processed (in 1968) survey of social stratification, published in the book titled *Czechoslovak Society. Sociological Analysis of Social Stratification*, edited by Pavel Machonin et. al. (Bratislava 1969). Other of the author's references to sources are not always reliable.

However, one basic distortion is the acceptance of the ethnic-evaluative and interpretative perspective instead of the civic perspective, which the inter-war Czechoslovak democracy accepted in the ideological connection to democracy, especially American. Unlike the neighbouring countries, this naturally enabled the country to develop its own social structure without any considerable role for Czech feudal elements, as well as a structure of values and attitudes towards Austro-Hungarian and German feudal elements corresponding to this. The author acknowledges the bourgeois-industrial Czech foundation, but he interprets its basic emancipatory paradigm as an ethnic paradigm, just as it is interpreted by the ever more influential 'undemocratic thought' [see Kurt Sontheimer: *Antidemokratisches Denken in der Weimarer Republik*, dtv München, 1983], and his understanding of the nation is as an ethnic group comprised of tribes and not as a civic and democratic paradigm. This interpretation of the author is succinctly expressed in the following statements: "By proclaiming itself a nation-states of the 'Czechoslovak nation', Czechoslovakia should defend its existence on the principle of national self-determination." However, it could not escape any impartial reader of the Czechoslovak Constitution of 1920 that the Czechoslovak nation is not declared within the constitution in ethnic terms but in civic terms. The author's interpretation that follows here, regarding constitutional details, founded on the acceptance of the above-mentioned stereotypes, contradicts his overall stance and does not make any sense. Kostelecký writes: "The Czechoslovak constitution adopted by the Czech-dominated National Assembly in 1920 defined the state as uninational with a centralised administration. Although the constitution was basically liberal, stressing civil rights regardless of ethnicity, religion, and language, the centralised solution did not satisfy minorities, not even the Slovaks." (p. 20)

The Czechoslovak Constitution was adopted by deputies in the Revolutionary National Assembly, which had been established following the results of the elections in 1911, and which German representatives refused to enter. It included 52 representatives from the Slovak club. The Czechoslovak nation, mentioned in the preamble, is not a single nation in the sense of the ethnic group, but a political, state nation comprised of the population on the territory of the Czech lands, Slovakia, and Ruthenia in correspondence with the peace agreement. The state is not defined in the constitution as un-

inational but as a 'democratic republic'. Chapter Six is devoted to the defence of *national*, religious, and racial minorities. Public administration, which the author refers to as 'centralised administration', is not addressed in the Constitution. Chapter Three concludes with a section entitled Ministries and Lower Offices. It is appropriate to refer to the administration as unified. Following the First World War the trend towards a unified state generally asserted itself, which was also connected with the introduction of proportional elections. In 1927, with the support of the HSĽS (Slovak Catholic Party) and German activist parties, administrative reform was passed, which introduced a provincial system. The bureaucracy in the administration was not political and was thus also acceptable for example to the Germans (according to reports of the German ambassador to Prague, Waltr Koch). Autonomous elements (elected) made up two-thirds of the members in the councils; one-third was named by the minister of the interior and the government. This was to guarantee the professional level of the councils.

The author's statement about 'stressing civil rights regardless of ethnicity, religion, and language', as cited above, makes no sense in the light of paragraph 106 in the constitution: "All inhabitants of the Republic of Czechoslovakia enjoy... complete and absolute protection of their lives and freedoms, regardless of their origin, state affiliation, language, race or religion". Paragraph 128 of the constitution reads: "All state citizens of the Republic of Czechoslovakia are fully equal before the law and in enjoy the same civic and political rights *regardless of their race, language or religion*". The author interprets the statement in the above-cited text in the exact opposite way. Perhaps it would be useful to also point out that the Charter of Rights and Freedoms that the author also refers to was, at the time when the constitution was drawn up, after the First World War, considered to be superfluous content – it was such a given that it was often not included in the constitution. That the inclusion of this passage in the Czechoslovak constitution was a correct move proved itself in later developments, when human rights in many states were suppressed.

We have here devoted more attention to the author's approach and outcome because he is not unique among that generation, which is currently in its productive age, but was formed and socialised during the twenty years after the Prague Spring in 1968, i.e. in the period of inaccessible archives, banned authors and books, and a general embargo on information, so that the authors of this generation often evoke the sense that no suitable sources, materials, and analyses exist at home. We have also intended to show here that this kind of stance and research approach does not lead to systematic, analytic, comparative knowledge, but rather to an unsystematic description and inadequate generalisations.

Despite what has been indicated here, this is an informative book written by a talented and promising young author, of whom we can still expect many important and interesting contributions.

Lubomír Brokl

Martin Greiffenhagen, Sylvia Greiffenhagen (eds.): *Handwörterbuch zur politischen Kultur der Bundesrepublik Deutschland*
Wiesbaden 2002: Westdeutscher Verlag, 674 p.

Political culture has become a favorite topic of much writing in the field of political science and sociology, ever since Gabriel Almond published his seminal works on the subject in the late 1950s and 1960s. However, as the first years of political-culture research went by, some of the original hopes related to the concept's usefulness in answering central questions emerging from the scientific study of the political had to be abandoned, and an ill-founded optimism gave way

to a more sober treatment of political-cultural problems. The disputes over the explanatory force of political culture, which were a direct outcome of the disillusion with the political-culture approach as such, served, however, as a powerful incentive for attempts at the methodological sophistication and substantive enrichment of the concept. This brought political-culture research to areas quite distant from the original scope of the classic studies, such as Almond's and Sidney Verba's *The Civic Culture* (1963). This development was characterised, among other things, by a conscious effort to disengage political-culture research from the original operational definition of political culture, embedded in the behaviourist scheme of thought that was powerful in the early 1960s, but loudly denounced less than a decade later. Today, the range of political-cultural studies is so rich in approaches and problems that a social scientist, especially if political culture is not the field of his/her specialisation, can only follow with difficulty the recent developments in all the various branches of political-culture research. In such a situation, there quite naturally arises a demand for comprehensive works, which bring together all the different aspects of political-culture research and present their readers with a summary of the most important results achieved by students of political cultures.

It is this demand for a comprehensive summarisation of the research into political culture that has been met with a collective work edited by Martin and Sylvia Greiffenhagen. The contributors, leading German sociologists and political scientists, have created a rich mosaic composed of pieces of sociological and political analysis useful to both students and researchers, but also to non-specialists interested in various aspects of German politics. Their publication is primarily a compendium of findings about German political culture, but it can also serve its readers as an excellent summary of different methods and theories applied in the research of political cultures. The summarisation, discussion and assessment of different methodological approaches, which make the book valuable reading even for students of sociology and political science whose focus does not lie in German politics, is an added value resulting from the effort of the editors to offer as diverse a picture of German political culture as possible.

The dictionary of German political culture contains 115 entries on topics, ranging from the elucidation of the political-culture concept itself, to closely related ideas such as political participation, to contextually related issues like unemployment (or rather effects of unemployment on political orientations of the population). The editors have chosen to rank the entries in alphabetical order, which was perhaps the most sensible thing to do given the many overlaps and connections that occur among the entries. These numerous connections are accounted for by cross-references to related items listed at the beginning of every entry. Topics that were not given their own entry are listed in the Index. Wherever possible, the entries follow the pattern *definition – theoretical approaches – substantive problems – findings about German society*.

Although the alphabetical order spared the editors the pain of grouping entries according to a substantive criterion, there seems to be a clear design in the selection of issues covered. The broad theme of subjective orientations to politics, which is the common definition of political culture shared also by the editors of this volume, receives treatment in a cluster of entries, such as 'historical consciousness', 'identity', 'ideology' or 'party identification', to cite just a few of them. With another series of entries, the book testifies to the close relationship of the political-culture concept to research into values and value change. The editors evidently attach great relevance to the process through which political orientations are acquired, since they have dedicated ten entries to various aspects of political socialisation and a further four to education, childhood and

family. The German focus of the dictionary is apparent in the presence of another large group of entries that cover different structural components of German society: from rather general concepts like elites or milieus, to trade unions and the army on a more concrete level of analysis, to individual German political parties on the level of individual political entities. Specific to the German context are the entries 'GDR', 'new federal states', 'fundamental law' (Grundgesetz) or 'periods in German history'. Colour and diversity is added to the mosaic of German political culture by such topics as feminism, globalisation, political advising or political morality.

One salient feature of the book is that it maintains a balance between what have come to be known as the quantitative and qualitative approaches in social sciences. The quantitative approach that has been *the* methodology of political-culture studies in the tradition founded by Almond and Verba is complemented by the more recent methodological innovations, represented among others by the study of political symbols (the entry 'political spectacle/politics of symbols') or the utilisation of various anthropological concepts. In the latter case, however, one will look in vain for a separate treatment of some important borrowings from social anthropology, such as political myths and rituals, although both have been central topics of political culture research since the 1980s at the latest.

Another omission, but one that seems to have been committed in the best of faith and to have resulted from a certain substantive understanding of political culture, becomes evident when a comparison is made between the dictionary and some of the publications on political culture that have recently appeared in the English-speaking countries. Very telling is the comparison between the entry 'political culture' (M. and S. Greiffenhagen) in this dictionary and the same entry in the *International Encyclopedia of the Social and Behavioral Sciences* [Neil J. Smelser, Paul B. Baltes (eds.), Elsevier: Amsterdam 2001] by M.J. Aronoff. While both make at some stage the obligatory reference to Almond and Verba, and both end with a plea for interdisciplinary approach to the study of political culture, the range of authors they review displays significant differences. The most conspicuous among them is that the US dictionary does not fail to mention the work of Michel Foucault and his followers in the field of cultural studies. To give political culture a poststructuralist reading is, in my view, to leave nothing but the names of Almond and Verba in the original concept they had coined. Yet, at least recognition of the existence of cultural studies could have found their way into the dictionary of German political culture – *via* developing or criticising their theoretical tenets and empirical findings when applicable. It is surprising – but perhaps typical of the cross-national communication in social sciences in the age of globalisation – that the contributors to the dictionary do not refer to the political-culture theory based on Mary Douglas' concepts of grid and group and developed by Aaron Wildavsky et al., which has become almost a fashion among American students of political culture today.

One of the undisputed qualities of the dictionary is that it offers a very broad overview of the state of German political culture today (and, one should add, of the state of German political-culture research) in a series of succinctly written, but exhaustive entries, which enable readers to find their bearings both in German society and in the complex landscape of political-culture theory and methodology. The publication can be used as a handbook by researchers interested in the subject matter of political culture on a more general level than that of a particular nation, since it at one time summarises the relevant theories, shows how they can be applied to a particular society and highlights the specific problems related to these theories. For readers unacquainted with German production in the field of political-culture studies, the dictionary is further useful as a rich source of references to crucial works

published in the German-speaking area. Since the focus is clearly on one society, the number of references to works published in other national communities is in some cases equal to zero, but in a number of others the reader is offered a list of the most important works concerning the topic in question of both German and international, mainly US provenience.

The Czech reader might find particularly interesting the entries dealing with the political culture of the former GDR and offering comparisons between the Eastern and Western parts of German society. Here, it might come as a surprise that the highly relevant topic of the post-communist political culture was not granted a separate entry, but perhaps the perception of relevance of this subject varies significantly between the Czech and German society. On the other hand, one cannot agree enough with the editors when they warn against a too hasty and unreflected application of Western standards to post-communist patterns of political orientations and actions (p. 398).

The Czech reader can hope that a similarly comprehensive picture of the Czech political culture will be composed in not so distant a future by Czech sociologists and political scientists. The fact that the German dictionary is the outcome of a thorough revision and updating of the first edition, which appeared in 1981, clearly shows that Czech political-culture research finds itself in an unequal position, given the virtual non-existence of this kind of research in the communist period. The several studies in Czech political culture that have appeared recently, and that are based on different methodological perspectives, are a promising sign that lost time can be made up for, at least in the long run. A more in-depth understanding of the political culture of a neighbouring country, made available in a concentrated form through this dictionary, can serve as an incentive for a more systematic examination of the political cultures of the Czech Republic and of other countries of Central and Eastern Europe.

Marek Skovajsa

Young Scientists Workshop
Prague, 25 April 2003

On Friday, 25 April 2003, Prague hosted the Young Scientists workshop, organised by the European Commission, the Science and Society section, and the National Contact Centre – Women in Science of the Institute of Sociology of the Academy of Sciences CR. This workshop was part of a larger exercise of the European Commission: within the Women and Science Unit, an Expert Group of 15 female senior scientists has been set up by the Commission to study and report on the situation of women scientists in the Eastern and Central European countries and in the Baltic States. To learn more about this Group, called Enwise – Enlarge "Women in Science" to the East – and its activities, you can visit its website at the following address: http://europa.eu.int/comm/research/science-society/women/enwise/index_en.html.

The related activities of the Group included organising a workshop on Young Scientists. The objective of this workshop was to provide an occasion for allowing a confrontation of the views of the Enwise Expert Group on the situation facing the younger generation of both male and female scientists in the Enwise countries with those of some of the representatives of this younger generation, in order to identify, with the panel that was set up, whether these young scientists feel themselves reflected in the approaches developed by the Enwise experts. The young scientists also commented on the issues of the brain-drain/brain-gain, and the attractiveness of a scientific career as seen from the young people's perspective etc. The general idea was also to give young people an opportunity to contribute their personal experiences and opinions to the debate, in order to expand the views Enwise members have on the problems young people are currently facing and on what might prevent them from staying either in their home countries or in a scientific career or even both. Each Enwise country was to be represented by two persons (one male and one female scientist), who had been through a Mobility scheme, such as, in particular, the EU Marie Curie Fellowships; in the end, however, it was not possible to maintain the one male to one female ratio.

In the morning, the participants listened to contributions from individual European Commission and ENWISE experts participating in the workshop. Brigitte Degen, of the C5 – Women in Science unit, focused on the history and objectives of the section and the current exercise. João Pereira de Faria, of the C4 – Young People and Science Unit, presented the results of the recent Eurobarometer survey on the perception of science in Central and Eastern European countries, and went on to talk about EU scientific prizes, in particular the EU contest for young scientists. Bruno Schmitz, head of Unit Training Research Networks, presented the individual Marie Curie schemes. Representatives of the ENWISE experts from Estonia, Slovakia and the Czech Republic outlined the situation of young people and R&D in their respective countries. To close the morning session, Marcela Linkova, of the National Contact Centre – Women in Science, presented the results of a questionnaire that was distributed among the participants before the workshop. The questionnaire concerned young people's experiences wtih Marie Curie Fellowships, their perception of science and their scientific career, equal opportunities in R&D in their respective countries, and the attractiveness of science, and it highlighted gender differences in opinions that were revealed.

In the afternoon two sub-groups were created, wherein an effort was made to maintain a gender balance between the two sub-groups, as well as a balanced geographical distribution of the participants. Each subgroup was chaired by an Enwise expert. Marina Calloni, as the Enwise rapporteur, attended one hour in each sub-group, in order to 'sense out' any possible differences in the atmosphere.

The participants in each sub-group were

asked to choose a rapporteur from among themselves to take notes of the main points to be reported in the plenary session. The questions addressed in the afternoon debate were:

• What is your opinion on the status of science in your respective countries today? Do you agree or disagree with the Eurobarometer results? Do you or do you not share the views expressed by the Enwise experts in their morning presentations?

• From your point of view, what could attract most university graduates to become PhD. students and scientists in the future? What could attract most young scientists to take a post in a research institution (public or private)?

• Do you think there is a gender dimension in building a scientific career? Have you personally experienced that your gender has already had an effect on your own scientific path?

• What do you expect from EU Enlargement with respect to your position as a scientist?

• What would be your suggestions on what should be changed, and how, with respect to the present status of science and scientists in the society.

In general, it emerged out of the debate that the young people were confident, successful and able, after some difficulties, to secure financing for their research. A quite heated discussion ensued in one of the groups on the issue of equal opportunities and the position of women. The different experiences of men and women were discussed, with women drawing attention in particular to their denigration by older male scientists, and to the problems of harmonising a scientific career with family life. This issue was further highlighted by an 'involved father' among the men, who, with his personal experience, supported the claim that scientist-mothers and -parents in general face considerable difficulties in career building, owing to their preference for a different work-life balance.

Marcela Linková

Sociologický časopis
Czech Sociological Review

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ISSN 0038-0288

Cena 44 Kč / Price 14 € / 14 $