

## Chapter 6

### Education Reform: Improving Human Capital Formation

*This chapter focuses on key weaknesses in the Hungarian education system, which create obstacles to the formation of human capital necessary to realise the country's economic potential. In response to the over-supply of qualified teachers, and to ensure the quality of applicants and the training they receive, recommendations are made for the reform of teacher education and training, in combination with measures to raise the status of the teaching profession. In the context of a highly decentralised education system, effective system monitoring and performance evaluation is important, and the chapter sets out best practices from other countries that Hungary may find useful to adapt to its own system. Among OECD countries, Hungary has one of the lowest shares of the population receiving tertiary level education. To address this issue, the chapter argues for further expansion of tertiary education with a new model of cost sharing between public and private sources. Finally, although the inequities that are present in the Hungarian system are commonly recognised, the chapter argues that progress to redress the situation has been insufficient and makes specific recommendations for additional measures to be taken.*

## Background and key policy recommendations

Developing human capital is an essential element in building a country's economic capacity and boosting its productivity performance. OECD analysis has shown that a one-year increase in the average duration of formal schooling of the population raises the output per capita of the country by between 3% and 6% (OECD, 2003). This chapter assesses how well the Hungarian education system meets the challenges it faces and proposes policies to improve it.

This chapter is based on evidence regarding the performance and functioning of the Hungarian education system compared with those of other OECD countries (Table 6.1). While the OECD hasn't recently conducted a systematic review of the Hungarian education system, there is substantial evidence about Hungary's comparative performance from a number of OECD studies.

This chapter is primarily based on an assessment of Hungary's position regarding the international education indicators, Education at a Glance and PISA (Programme for International Student Assessment) (OECD, 2007a; OECD, 2007b) as well as the findings from recent OECD policy reviews on education (see the references at the end of this chapter).

**Table 6.1. Overview of the performance of the Hungarian education system**

Indicator	Key education indicators				
	Source	Reference year	Hungary	OECD average	Hungary rank
Mean score of 15-year-olds in science	PISA 2006	2006	504	500	13-17/30 <sup>1</sup>
Mean score of 15-year-olds in mathematics	PISA 2006	2006	491	498	17-22/30 <sup>1</sup>
Mean score of 15-year-olds in reading	PISA 2006	2006	482	492	18-23/30 <sup>1</sup>
% variation in average science scores of 15-year-olds between schools	PISA 2006	2006	70%	33%	Highest of 30 countries <sup>2</sup>
% of population aged 25-34 with tertiary qualifications	EAG 2007	2005	20%	32%	24/30
Annual expenditure per student in primary and secondary education (USD, PPP converted)	EAG 2007	2004	USD 3 833	USD 6 608	26/29 <sup>3</sup>
Ratio of students to teachers in primary education	EAG 2007	2005	10.6	16.7	Joint lowest
% of working time spent teaching - lower secondary teachers	EAG 2007	2005	30%	-	13/15
Teacher salaries: ratio of salary after 15 years of experience to GDP per capita - lower secondary teachers	EAG 2007	2005	0.89	1.3	3rd lowest of 28 countries
Earnings premium of those with a university degree as a percentage of earnings of those who have graduated upper secondary education (30-44 year-old age group)	EAG 2007	2005	125	61	Highest of 24 countries

1. Range of rank order position shown reflects the uncertainty surrounding the sample estimates.
2. Overall variation in student performance in Hungary is below the OECD average.
3. Hungary has a middle-ranking position when expenditure per student is related to GDP per capita.

Source: OECD (2007a), *Education at a Glance 2007 - OECD Indicators*, OECD, Paris; OECD (2007b), *PISA 2006 - Volume I Science Competencies for Tomorrow's World: Analysis*, OECD, Paris.

This assessment suggests that there are four relevant issues in particular that characterise the Hungarian education system:

- supply of teachers: quantity and quality,
- securing accountability under conditions of significant school autonomy,
- a low share of the population with tertiary level education,
- lack of equity in the access to education.

To address these issues, in order to raise the effectiveness, efficiency and equity of Hungary's education system, this chapter arrives at the following policy recommendations:

- **reform teacher education and training**, in combination with continued efforts to raise the status of the teaching profession, in order to improve the quality of the teacher workforce;
- **adopt best practices** regarding **effective system monitoring and evaluation** pursued in other countries in order to raise education quality;
- **expand access to higher education**, and make use of cost sharing between public and private sources;
- **remove barriers** to entry for **minorities** and **underprivileged children**, thus improving the equity dimension of the education system.

The remainder of this chapter presents the facts and analyses underpinning these policy recommendations and spells out some of the details of how the recommendations can be implemented. In doing so, it draws heavily on international experience and comparison where available. Recent government initiatives have started to address some of these issues, though the degree of local autonomy in the schooling system can hamper implementation. It is important, therefore, that the necessary mechanisms are in place to monitor the implementation and impact of these policies.

## Teacher recruitment and teacher education

### *Background*

The education system in Hungary produces a larger number of qualified teachers than needed; however, there are concerns about attracting the most suitable candidates into teaching and providing them with high quality training. The over-supply of teachers arises partly from the organisation of higher education programmes in Hungary. The lack of

accredited degree programmes in other fields of higher education has meant that students wishing to study liberal arts have had to do so by enrolling in a teacher education programme. Thus, many people are trained to be teachers even though they do not intend to be – and are unlikely to work as – teachers. Similarly, some of those who are trained may enter teaching though it is not their first career choice.

At the same time demographic trends have contributed to a reduction in the demand for teachers and current population projections indicate demand will continue to decline over the coming years. The over-supply of trained teachers has entailed very low student to teacher ratios in Hungarian schools (Table 6.1) despite class sizes being near the OECD average. The low teacher student ratios co-exist with a relatively low percentage of teachers' working time spent teaching students, raising a question about how efficiently teaching resources are used.

The OECD policy review on teachers, *Teachers Matter: Attracting, Developing and Retaining Effective Teachers* (OECD, 2005), noted a relative decline in the number of applicants to teacher training, partly no doubt as a market response to the over-supply, and raised questions about the quality of applicants to teacher training as well as the quality of the training received by those who enrol. Moreover, relatively low teacher salaries (Table 6.1) and a perceived decline in the social status of teachers are likely to have discouraged the best applicants. The teacher education system was also seen as inflexible, with students having to make career decisions at a very early stage of their tertiary education.

In summary, there are two issues that require attention:

1. managing the supply of qualified teachers,
2. ensuring quality of applicants and quality of training.

### ***Recent policy developments and possible reform***

A new structure of teacher training is evolving subsequent to the reform of higher education (Act on Higher Education<sup>1</sup>) and as part of the adaptation to the Bologna Bachelor/Masters structure of higher education (Hungarian Institute for Educational Research and Development, 2007). Through these changes, with a few exceptions, teachers will be trained within a Master's degree course with more emphasis on the development of professional and methodological skills. These changes are seen as promoting transparency of the training process, replacing the former opaque structure. This is expected to assist in planning the number of publicly funded candidates more rationally.

Mandatory accreditation of training providers, based on the characteristics of the teacher training offered, is one way that the new act intends to improve the quality of training. A Teacher Training Board has been established as part of the National Accreditation Committee of Higher Education, with powers to accredit training on the basis of quality controls.

The introduction of new (non-teacher training) career paths in the higher education system will reduce the extent to which students are forced to follow programmes which result in qualified teacher status, even though they lack intention of becoming teachers. While the changes ought to improve supply management, ensuring the quality of entrants and the quality of the training received is a separate challenge.

It can be argued that if teacher education programmes in Hungary admitted fewer students and if those admitted were more suited for teaching and more interested in a teaching career, the available resources could be used more efficiently. Countries such as Canada, Finland and the United Kingdom, for instance, are in principle selective in who is allowed into teacher training programmes. Countries experiencing teacher over-supply – like Hungary – clearly have the option to be much more selective (*e.g.* by making teacher selection criteria more stringent, and introducing well-structured induction and probationary processes for new teachers – which have been lacking in Hungary) to ensure that the best candidates get the available positions.

The new system of training teachers within a single Master's course simplifies the structure of teacher training. By adopting a more sequential mode of teacher training rather than a concurrent model, students are able to make crucial career path decisions in the course of – rather than at the start of – participation in a teacher training programme. Arguably, this will increase the chances of getting the most suited candidates into teaching by allowing them to consider their choices more carefully.

Attracting the right people into teaching also depends on making teaching an attractive career option for suitable candidates, and this in turn requires raising the social status of the teaching profession. Efforts to do this are being made by the Hungarian government but this may also require improving the competitiveness of teacher salaries (Table 6.1). Increasing the competitiveness of entry into teacher training can also contribute, as can the implementation of rigorous and transparent quality standards in the training of teachers.

Furthermore, accreditation of teacher training by an independent, authoritative agency is a means to both assuring quality in, and raising the prestige of, teacher education, and to help ensure that funds are well used and graduate teachers are well prepared. There already exist a number of schemes for the evaluation of teachers' training in Hungary, but it is less clear how effective these are. In order to encourage innovation and a diversity of approaches in teacher education, accreditation criteria should focus on **the outcomes of programmes** (*i.e.* the competencies that teachers will acquire) rather than on their inputs, curriculum and processes. In line with this, the content of teacher education in Hungary is now focusing on the development of teaching competencies. Teacher education institutions should be free to determine the best way to reach agreed ends. Programme accreditation must be part of an ongoing process of feedback and evaluation of the effectiveness of teacher education.

New teacher education policies in Hungary are moving in the direction of good practices found in other countries. A study of a number of countries<sup>2</sup> that were successful in the PISA<sup>3</sup> 2000 assessment *What Makes School Systems Perform? Seeing School Systems*

*through the Prism of PISA* (OECD, 2004a), noted that teaching candidates are subject to different forms of assessment in different countries, with, for example, subject knowledge dominating in France, general competence in teaching skills in the United Kingdom, and aptitude for the profession in Finland. The same study noted that the development of mandatory standards formed the core of efforts to reform teacher training. Standards can relate to tests and regular assessment of teachers as well as to the content and process of professional development. The practice in the Netherlands of compiling job profiles (a description of what teachers are expected to know and be able to do) is a particularly noteworthy example of how teacher standards can be formulated. Experiences in Canada and the United Kingdom provide further interesting examples of standards-based assessment.

In-service professional development in Hungary follows a highly-decentralised, market-orientated strategy in that teachers and schools are encouraged to seek out the services they require. While very responsive to client demand, the processes of evaluation to ensure quality could be improved. Evaluation procedures exist for accrediting training providers and are co-ordinated through the *In-service Teacher Training Accreditation Board*, but the number and diversity of programmes greatly complicates the task and can prevent meaningful information being provided to prospective clients. As noted above, evaluation criteria that are related to the outcomes of the professional development (*e.g.* aligned to the competencies that the training aims to develop), would be of considerable value to these clients.

## **Improvements to system monitoring**

### ***Background***

Over the last decade, moves within OECD countries towards greater decentralisation of responsibilities in the provision of education and attempts to increase the focus on outputs have led to changes in monitoring systems within the public sector. In some countries, this is evident from the extent and manner in which the operation and performance of schools are evaluated, including the role that student assessment data play in this process.

The Hungarian education system is highly decentralised, and issues of accountability, system monitoring, student assessment, and teacher appraisal are an important part of the debate about how to improve the performance of the system. This section discusses the use of student and school assessment data in monitoring the performance of the education system; it summarises the current situation in Hungary and then presents an overview of alternative approaches pursued in other countries, discussing some of the issues that arise in this area.

### ***Recent policy developments in Hungary and possible reform***

The National Assessment of Basic Competences (ABC) was introduced in 2001 and deals with the assessment of literacy and numeracy competencies for all fourth, sixth, eighth and tenth-grade students. The results are provided to schools to facilitate school

self-appraisal and development, but are not made public. In addition, the secondary school leaving examination became more centralised in 2005 and potentially provides a tool for comparison of school performance, though some weaknesses are perceived in its ability to measure changes in student ability over time.

An examination of evaluation procedures and accountability arrangements at the lower secondary level of schooling in a number of OECD countries showed that student assessments play an increasing role in school performance evaluation and accountability (OECD, 2007a). In several countries these assessments are derived from national examinations, but periodic national assessment of students in compulsory education are more common. In some countries monitoring information at the school level is gathered through regular inspections of schools. Hungary is one among a minority of countries without such an inspection system, though there is a system in place for school maintainers (municipalities) to request an analysis and evaluation of the functioning of their schools from accredited educational experts. In addition, school self-evaluations are a feature Hungary has in common with most OECD countries. Information from student assessments and school evaluations can be used for various purposes, including to encourage school improvement (19 countries report this practice), to assist school choice by parents (10 countries), and to provide rewards and sanctions for different levels of performance (3 countries).

The study referred to earlier, which examined the features of a number of countries who performed successfully in the PISA 2000 assessment (OECD, 2004a) noted that each of these countries places considerable importance on comparing their own standards with international benchmarks as part of their strategy for securing strong performance.

Countries have multiple motives for monitoring school performance. They all seek to use the assessment results to maintain or improve the quality of their education systems and to obtain empirically supported reference frameworks against which the performance of individuals, schools and the whole system can be judged. However, beyond this, additional functions of performance monitoring are accorded different priorities in different countries. In a federal country with autonomous provincial school systems like Canada, studies carried out nationally allow comparisons across provinces. In Finland and Sweden, policy makers focus primarily on using assessments to ensure that students are offered equal educational opportunities, regardless of their social or ethnic backgrounds. In France, empirical tests are carried out to ensure that students perform to the expected level and that teachers provide adequate support. In the Netherlands and the United Kingdom, government inspectors give schools information that can help them improve, but they also put considerable emphasis on making their findings accessible to other stakeholders, thereby making schools more accountable.

The countries presented in the study deploy a range of different monitoring tools. All reference countries have considerable experience with studies that compare student performance across education systems at the sub-national or international level, and most, like Hungary, are currently participating in at least three large ongoing studies: PISA, the Trends in International Mathematics and Science Study (TIMSS), and Progress in

International Reading Literacy Study (PIRLS). Alongside these comparative studies, all countries have in place systems to conduct large-scale assessments within their borders. In Canada, these take place both within provinces as well as across the country. Different countries combine diagnostic and system-monitoring functions in different ways. In Finland and Sweden, where responsibilities have been decentralised but national agencies have a brief to maintain equal opportunities across the system, these agencies emphasise not just the assessment process but also measures to cope constructively with any problems they identify. Inspection systems in the United Kingdom and the Netherlands are used not just to hold schools accountable for their standards, but also to give information that allows them to improve themselves, and such inspections try to relate to research on school effectiveness. France has a distinctive approach; it separates diagnostic testing and system monitoring. On the one hand, teachers get tools for recognising students' specific strengths and weaknesses, and for recognising the potential for developing their own teaching capabilities. On the other, separate studies with publicly available findings record institutions' performance levels based on national examination results.

There is much debate about whether information on student performance should be made publicly available. PISA 2006 (OECD, 2007b) indicates that schools that publish their results tend to perform better (even after allowing for relevant other school and socio-economic factors). All of the countries in the six-country study publish the results of evaluations of school systems, but they differ in how they do this, partly because of differences in the design of evaluation tools. In Canada, for example, provinces report back results at a range of levels, from the province down to the individual student (in random sample surveys the student level and sometimes the school level are not appropriate). France and the United Kingdom both publish test results as a means of putting pressure on the school system to improve, but in France much of the emphasis has been on the whole-system level (though this is changing) whereas in the United Kingdom, individual school results are given prominence. Regardless of the extent to which findings are made accessible to the public, a general pattern across the countries examined is to develop mechanisms for individualised feedback to schools to help them to improve their performance.

Finally, there is a growing recognition that for monitoring information to be more meaningful, the measures of performance should go beyond simple measures of raw student scores to measure the value-added of schools, *i.e.* the **increase** in a student's knowledge during the period s/he attends school. Value-added data systems that take account of factors that influence educational achievement such as the innate ability of students, their prior attainment, their socio-economic background, the influence of peers and individuals in and outside of the school, are increasingly used in system monitoring, most notably in the United Kingdom and a number of states in the United States.

This overview of practices in successful countries illustrates some features that are generally missing from Hungary's educational system monitoring, in particular the lack of a more formalised and systematic, external inspection and the lack of publicly available information on the performance of individual schools. Efforts to develop and implement



quality systems for monitoring the education system and evaluating its performance should make use of international best practices, which are well documented in numerous studies.

## A case for further expansion of higher education

### *Background*

With only 20% of the population aged 25-34 having received tertiary education, Hungary has one of the lowest proportions of highly educated people in this age group in the OECD area (Table 6.2). This might explain why Hungary has an income premium of university graduates which is twice that of the OECD average and the highest wage premium for graduates among the 24 countries for which the pertinent information is available.

Table 6.2. Tertiary education indicators

Indicator	Reference year	Hungary	OECD average	Hungary rank
% of population aged 25-34 with tertiary qualifications	2005	20	32	24/30
Earnings premium of those with a university degree as a percentage of earnings of those who have graduated upper secondary education (30-44 year-old age group)	2005	125	61	Highest of 24 countries

Source: OECD (2007a), *Education at a Glance 2007 - OECD Indicators*, OECD, Paris.

Examination of the long-term trend shows that the share of persons with tertiary education has increased over time: For the older 55-64 year old cohort (who will have graduated same 30 years earlier), Hungary's share of 15% tertiary attainment is closer to the OECD average of 19%. But faster progress has been made by other countries so that Hungary's relative position has deteriorated and is now well below the OECD average.

More recent trends in tertiary enrolment – over the last ten years – imply that Hungary will narrow the gap in the coming years, with student enrolment in tertiary education having more than doubled between 1995 and 2004. The most recent figures, however, show that the growth has levelled off: the entry rate into university education has stalled at 68% of the relevant age cohort, while most other countries continue to expand higher education. An aggravating factor is the relatively low survival rate in higher education in Hungary: only 64% of university entrants go on to earn a degree, compared with a 71% OECD average.

Although there was a sizeable increase in expenditure (59%) on higher education over the period 1995-2004, it fell well short of the percentage increase in student numbers so that

expenditure per student fell by 27% in real terms. Households receive sizeable public subsidies for children enrolled in tertiary education, with some 16% of public funding for tertiary education being devoted to scholarships and education grants to students enrolled. This is much higher than the OECD average of 10%. These scholarships and grants are to help cover living costs and can be either means-tested social needs grants or performance related merit grants.

State-guaranteed loans are available to students in tertiary education, though the maximum amount available per student (USD 1 717) is relatively modest – the second lowest among 17 OECD countries with student loan systems – and the interest rate charged (11.95%) is high compared with other countries for which data are available, partly reflecting higher inflation rates. All other OECD countries with publicly supported student-loan systems either have no interest rates or rates of 5% or less.

### ***Recent policy developments and possible reform***

The government controls the number of student places that are financed by public funds. Over the last decade the number of publicly funded places has significantly increased, though it is clear from the levelling off in the latest figures that growth has stalled for the time being, in part because of the need to consolidate public finances.

Hungary operates a dual-track system whereby students are admitted to tertiary education on the basis of their entrance exam scores, with the higher scoring students subsidised by state funds paid to the institution, and the lower scoring students admitted as “private” students, required to pay full tuition fees. This raises serious questions about the equity of access to tertiary education in Hungary. A small specialised programme begun in September 2005 seeks to increase the number of disadvantaged and Roma students who are admitted and supported in tertiary education. From September 2007, a tuition fee of around EUR 400 per year (the FER) was introduced for all higher education students, to be paid from the second year of studies.

Further expansion of tertiary education would seem to be desirable in order to produce more highly qualified people in the labour force and to enhance Hungary’s international competitiveness (though demographic trends may limit the scope for such an expansion). The high wage premium gained by university graduates provides *prima facie* evidence of a shortage of highly skilled individuals in the labour market.

There may also be a case for reconsidering the cost sharing balance between public and private sources in funding tertiary education in light of the:

- sharp decline in expenditure per student (27%) between 1995 and 2004, indicating strain on public funding in the light of rapid expansion in tertiary education;
- high wage premium gained by graduates, indicating ample scope for those who benefit from tertiary education to contribute to its costs;

- possibility of using public savings entailed by private contributions to improve equity of access (see below) and/or overall quality of service provided.

To prevent a shift in funding towards private sources from limiting access by students from low income families, such contributions should be assessed using a needs-based formula.

Access for a larger number of students to tertiary education would be facilitated by the modernisation of the career-guidance system. This could also help raising the survival rates (only 64% of university entrants go on to gain a degree). The growing importance of lifelong learning has been transforming the role of career guidance at schools. It was previously seen as a personal service focused on educational choices and subsumed under personal counselling. In addition, it was often considered as serving mostly the interests of the school rather than the student. Henceforth, modern career guidance is characterised by a curriculum-based approach drawing the attention of students to a better understanding of the world of work and its demands as well as to the development of skills for making decisions and managing transitions. All of which is highly desirable in a lifelong learning perspective (see OECD, 2004b).

Finally, as shown by the ongoing OECD Tertiary Education Thematic Review, the transition to knowledge economies heightens the need for multidisciplinary and adaptable workers, the regular upgrading of their skills, and thus less demands for traditional tertiary training, with greater emphasis on flexible and modulated provision. These trends, which have implications at the system level, call for new regulations, policies, and incentive and reward structures in order to steer all stakeholders in directions that best serve societal and economic objectives.

## **Raising equity in education**

### ***Background***

In many OECD countries, there is a growing attention to the issue of equity in education. This is one of the main findings of a recent OECD study, *No More Failures - Ten Steps to Equity in Education* (OECD, 2007c). The results from PISA 2006 place Hungary lowest on one of PISA's key equity indicators: between-school variation in the mathematics performance of Hungarian 15-year olds was about 70% of the total variation, while the average for the 30 OECD countries was 33%.

The OECD team which visited Hungary in the context of the Equity Study, which was subsequently published (OECD, 2007c), noted the extent of performance inequality, particularly by the poor results obtained by students from the Roma population, the largest ethnic minority group in Hungary. Furthermore, a recent report by the Ministry of Education of Hungary on Equity in Education (Ministry of Education, 2005) concluded that "the Hungarian education system does not compensate for, on the contrary it strengthens, the inequalities produced by the different social backgrounds of learners."

The OECD Equity Study (OECD, 2007c) found that most of the equity problems identified in the Hungarian education system are the result of discriminatory selection mechanisms in the system. In the view of the reviewers, these selection mechanisms result in a system that disadvantages the poor, visible minorities, and special education students.

### ***Recent policy developments in Hungary and possible reform***

Over recent years a number of reforms designed to improve equity in education have been implemented (*e.g.* the Public Education Act and its 2003 amendments, the Phare programme, the Roma Integration programme). However, the above quoted report by the Ministry of Education concluded that “these policies did not reach ... measurable improvement.”

The OECD Equity Study (OECD, 2007c) contains a series of recommendations regarding the education of minorities against which the measures taken can be assessed, namely:

- **Ensure minorities participate in early childhood education with the option to lower the age of mandatory participation in education/day care.** The sorting of students begins very soon with access to child care. In principle, all local governments provide early care to children. But this is reserved for children whose parents both work so that very few children from disadvantaged backgrounds are eligible, as their parents are often unemployed. Hence, those children are likely to enter compulsory education later than their more advantaged peers, opening an education gap that is likely to grow over time. The objective should therefore be to provide early care services (covering ages zero to three years) for disadvantaged children, regardless of parental employment status.
- **Children from minority groups should not be automatically diagnosed with special needs and placed in special institutions.** On the contrary, any segregation should be avoided. Such children should be in regular classes with all other children. There is evidence that well designed interventions for children with learning and behaviour problems, provided in mainstream classrooms, can improve outcomes of not only those students but also of the other students in the class. Attention should be paid to the risk of cultural bias in the initial diagnosis. Concentration of minorities in particular schools mirror residential patterns but also reflects the outcomes of selection and choice in the school system. Such segregation which appears to damage attainment should be avoided.
- **The right of free choice of schools in Hungary leads to the development of segregated schools.** Indeed, families with high socio-economic status have a tendency to avoid schools with high representation of Roma students. Furthermore, by the time students reach their mid-teens, the education system sorts students from different backgrounds into different schools more comprehensively than is the case in any other OECD country. These two factors

lead to concentration of Roma students in some schools. In addition, such schools are often less well equipped in terms of the building's conditions, furniture, and classroom equipment.

- **Regarding the education of students with special needs, use of the catch-all category “mild degree of mental disability” should be discontinued;** it is currently used to identify “permanent slow learners” often from the ages of four and five years, a classification closely aligned with socio-cultural background. In addition, all children, except the severely mentally and physically handicapped, should be placed in mainstream classes and schools. Actions should also be taken to mitigate the consequences of the differentiation system and of the free school choice in order to limit the concentration of minority students.
- **Members of minorities are less likely to have a job and find it difficult to obtain the training leading to a job.** Obstacles should therefore be removed in order for minorities to obtain qualifications in the first place. Measures should be taken to reduce the incidence of labour-market discrimination. The Roma population is extremely underrepresented in general secondary schools with less than 4% of the cohort attending, which means that a large number is either already out of school (10% of Roma children do not complete basic schooling) or is attending vocational training schools where the drop out rate is very high. Vocational education should provide for pathways allowing students to return to general education or to have access to tertiary education. Policies and guidelines are necessary to ensure that all schools admit, retain and graduate students with varied backgrounds (ethnicity, academic attainment, family income and disability) according to their ability.
- **Teachers should be trained to work with children from diverse backgrounds,** as without appropriate professional development it is hard to address the issue of cultural diversity effectively. Teachers have an essential role to play helping disadvantaged students to achieve high performance. Providing them with the appropriate training to teach children from diverse background can greatly facilitate this task. Hungary has clearly recognised this and, through the framework of the National Development Plan, new programmes of in-service training have been developed to provide the skills needed by teachers to cope with these challenges.

## Notes

1. Act CXXXIX of 2005 on Higher Education and subsequent amendments.
2. Canada, Finland, France, Netherlands, Sweden and the United Kingdom.
3. PISA is an international assessment of the reading, mathematics, and science literacy of 15-year-olds across OECD and partner countries. It was carried out for the first time in 2000 and is repeated every three years, most recently in 2006. School and student background questionnaires provide important contextual information as well as students' attitudes and opinions ([www.pisa.oecd.org](http://www.pisa.oecd.org)).

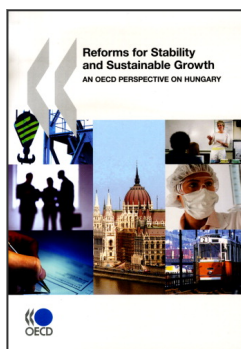
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