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Poland's Education and Training: Boosting and Adapting Human Capital

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ABSTRACT/RESUME

Poland's education and training: Boosting and adapting human capital

An effective system of education and training is important for both social and economic reasons. Its role in the Polish economy is to provide the current and future labour force with skills to facilitate both continuing productivity growth and reallocation of resources as structural adjustment proceeds. Important reforms to decentralise primary and secondary education in the late 1990s are now reaching maturity, as cohort sizes decline steeply. These reforms and PISA results have focused attention on quality control and the place of vocational education. Both are important in the tertiary sector, too, which has seen a four-fold expansion in 15 years, mushrooming of private-sector provision and questions on the appropriate balance of public and private funding. Participation in adult training is low too and, as elsewhere, seems to be concentrated among already relatively highly-educated groups but does not seem to be having much impact on improving the human capital of older and less skilled groups. This Working Paper relates to the 2006 OECD *Economic Survey of Poland* (www.oecd.org/eco/surveys/poland).

JEL codes: H15, I20, I21, I28, J24
Keywords: Education, labour market, training, human capital

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Éducation et formation de la Pologne : Dynamiser et adapter le capital humain

Les raisons pour lesquelles il est important d'avoir un système d'enseignement et de formation efficace sont d'ordre à la fois social et économique. Pour l'économie polonaise, le rôle d'un tel système est de fournir dès aujourd'hui et dans l'avenir une main-d'œuvre dont les compétences permettront non seulement de continuer à accroître la productivité mais aussi de réaffecter les ressources selon les besoins de l'ajustement structurel. Les réformes importantes entreprises à la fin des années 90 pour décentraliser les enseignements primaire et secondaire sont désormais parvenues à maturité, avec des cohortes dont la taille décroît fortement. Ces réformes et les résultats des enquêtes PISA ont attiré l'attention sur le contrôle de la qualité et la place de l'enseignement professionnel. Ces deux aspects ont aussi leur importance en ce qui concerne l'enseignement supérieur, dont les effectifs ont quadruplé en quinze ans, un phénomène qui s'est accompagné d'un foisonnement de l'offre du secteur privé et de nombreuses interrogations sur le juste équilibre entre financements publics et privés. Du côté de la formation des adules, les taux de participation sont également faibles et, comme ailleurs, ce volet de la formation semble concerner essentiellement les personnes possédant déjà un niveau d'études relativement élevé et ne pas beaucoup contribuer à l'amélioration du capital humain des groupes plus âgés et moins qualifiés. Ce Document de travail se rapporte à l'Étude économique de l'OCDE de la Pologne, 2006 (www.oecd.org/eco/etudes/pologne).

JEL classification : H15, I20, I21, I28, J24
Mots clés : Education, marché du travail, formation, capital humain

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Poland's education and training: Boosting and adapting human capital

By
Paul O'Brien and Wojciech Paczynski[1]

The major changes in the Polish economy and society over the last two decades mean that the education system operates in a very different world from that of 20 years ago. While societies have a range of aims that education policy should pursue, for present purposes this means most notably preparing people for economic life – in particular by contributing to providing the best match possible between supply and demand on the labour market. But it also means investing in skills and knowledge needed for promoting and pursuing necessary structural changes, innovation and growth, as well as encouraging and enabling people to learn and to adapt to economic change through their own working lives.

The high level of unemployment represents a crucial challenge for economic policy in Poland (OECD, 2006). There is a clear link between educational outcomes and some of the groups that are most severely affected now by unemployment or low labour market participation. This includes both people over 45 or 50, many of whom may have now "withdrawn" from the labour force, and younger people, in their first years after completing education, where unemployment rates are also high.

For the younger of these groups an important issue is to what extent their labour market experience is explained by educational background and achievement, as opposed to more general labour market conditions, legislation and institutional arrangements. How can the evolving education system best improve the labour market prospects of future members of the labour force? Furthermore, even if educational attainment is at the root of the problem for many, what kind of education or training policy response is appropriate, both for the unemployed and for those currently in employment but perhaps in vulnerable sectors or regions? For the older group, how can they be drawn back into the labour force, if the particular skills that were relevant in their last occupation are now obsolete, and their general educational background (including their level of literacy) is perhaps insufficient even for low-skill jobs?

The education system in Poland has not been static but, on the contrary, has evolved enormously since 1990 and has experienced three important developments. *First*, it has already had to cope with a rapid decline in school enrolments now moving through the system, after the steep fall in birth rates after 1990. *Second*, the major re-organisation of primary and secondary education in 1998-99 introduced a

1. Paul O'Brien is a senior economist at the OECD and Wojciech Paczynski is an economist at CASE, Warsaw. This paper draws on material originally produced for the OECD Economic Survey of Poland published in June 2006 under the responsibility of the Economic and Development Review Committee. The authors are indebted to Mary Canning, Peter Tergeist, Greg Wurzburg, Andrew Dean, Mike Feiner, Peter Jarrett, Stéphanie Jamet for their valuable comments. Representatives from the Polish Ministries of Economy and Education, various government agencies and educational institutions provided valuable insights. Special thanks go to Françoise Correia for research assistance and to Mee-Lan Frank for excellent technical preparation.

decentralised organisational structure of management. *Third*, enrolment in tertiary education has increased at least four-fold, much of the increase being in hundreds of new private-sector institutions, raising questions of quality control and finance. These questions may also be relevant for privately financed adult training, while its publicly financed counterpart appears to have taken a back seat to passive labour market policies as far as the most vulnerable labour market groups are concerned.

This paper discusses the returns to education and provides an overview of the structure of the education system in Poland; it then discusses its organisation and performance, taking the different levels of education and training in turn. The performance of the education system is a complicated function of many variables (and is not to be measured only in economic terms), not all of which can be covered adequately in this *Survey*; hence the recommendations (see Box 4, at the end of the paper) cover general factors such as resource allocation, organisation and quality control, rather than more precise recommendations on teaching methods and training, curriculum evaluation methods and so on that a more detailed investigation might provide.

The returns to education

All OECD countries provide a substantial amount of education for free, because it provides enormous benefits to society in addition to private returns to individuals. In Poland, the private returns to education have probably increased over the past 15 years. In 1993, 76% of respondents to an opinion poll felt that education was worthwhile; in 2004 the affirmative response to the same question had grown to 93% (CBOS, 2004). Over this same period, the returns to education appear to have increased as well, at least on the relatively crude measure of differentials between the earnings and employment rates of people with different levels of education and in different professions.[2] In fact, the widening of differentials by occupation is much more pronounced than that by education level (Table 1). Two factors are probably involved: the labour market itself has become more competitive, with greater rewards for differences in performance rather than differences in qualifications. And the rapid expansion of tertiary education means that people who in the past would have had only general secondary or post-secondary vocational qualifications now have tertiary education, so that differentiation within the tertiary group has increased.

It is harder to measure the social benefits from education in Poland. In pre-primary, primary and secondary-level education, most research shows that social benefits exceed the private returns, though this is less clear for tertiary education (Blöndal *et al*., 2002). Benefits arise from spillovers both on public finance, as higher earners pay a higher proportion of their income in taxes, and in productive efficiency, as an increase in the general level of education results in higher output and contributes to productivity growth. Societies usually value education for non-economic reasons also, and there are often observed correlations between education and health outcomes such as life expectancy (although the extent to which these are causal or work through income effects is not clear – see Doyle *et al.*, 2005) (Figure 1). The difficulty in applying market rules to education provision reinforces the need to look for appropriate incentives and organisational structures.

The structure of the education system in Poland

Compulsory full-time education in Poland runs from age 6 to 16, through one year of pre-school, then primary and lower secondary. Above the age of 16 full-time education is not compulsory, but since 1997 the constitution has required that, up to age 18, at least part-time education should continue, either in school or out of school. Less than 40% of children aged 3-5 attend pre-school, almost all of them in the

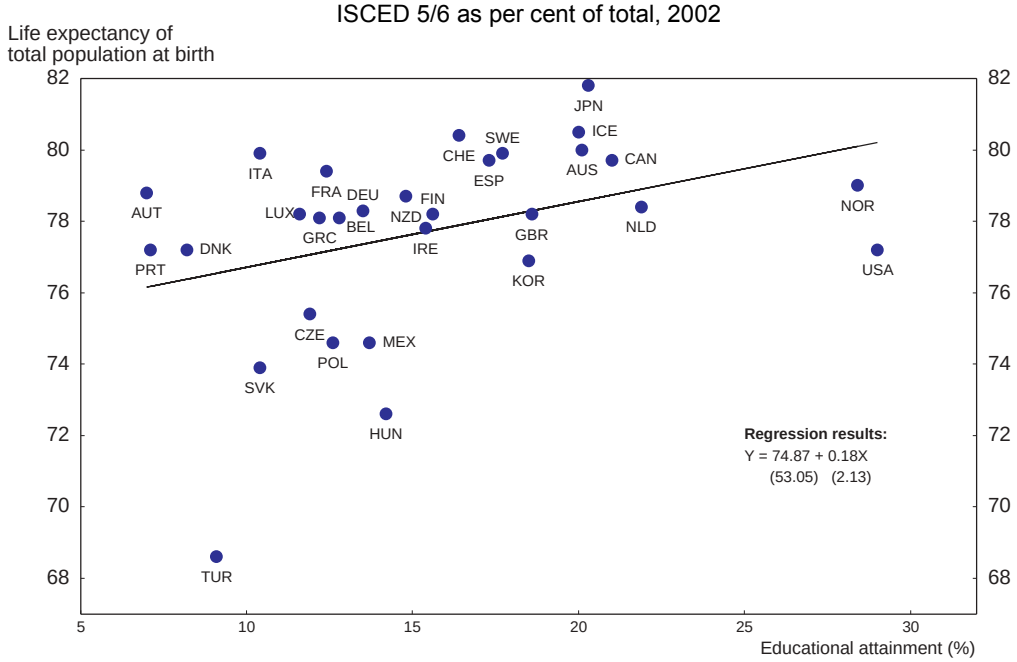
2. No studies which calculate economic rates of return on investment in education are available for Poland.

Table 1. **Earnings by occupational group and education**

	1996	2002
	Percent of average earnings	
By professional group:		
Senior staff and managers	182	233
Professionals	118	133
Technicians and other middle management	102	102
Office workers	91	89
Operators and installers of plant and machinery	98	89
Industrial labourers and craftsmen	96	84
Farmers and gardeners	78	67
Providers of personal services, traders	70	60
Unskilled labour	68	59
By level of education reached:		
Tertiary	144	151
Post-secondary and secondary vocational	99	91
Secondary general	99	94
Basic vocational	89	77
Primary	83	71

Source: Central Statistics Office and World Bank (2004), *Tertiary Education Poland*.

Figure 1. **Life expectancy and educational attainment**
ISCED 5/6 as per cent of total, 2002



Source: OECD, Health database.

larger urban areas. At upper secondary level children may go to a "general" school or to a vocational or technical school. The proportion of children going to general rather than vocational upper secondary schools has increased, because the general schools are thought to provide better preparation for the *Matura* exam, typically taken when the student is 19, and which is a condition for entry to tertiary education. This structure of primary and secondary education is relatively new: there were major reforms in 1991 and in 1998. An important change implemented in 1999 was the ending of selection between vocational and general streams at the end of primary school, with the creation of the undifferentiated lower secondary

schools and delaying selection until age 15/16 (up to 1998 "primary" school continued until age 14/15). The current system of national examinations at the end of primary and lower secondary levels dates only from 2002 (prior to that there were no national examinations before the *Matura*), and 2005 saw the written part of the *Matura* based on an external exam for the first time; in addition, vocational qualifications awarded by basic vocational and technical schools are now certified by external examinations, of which the first was conducted in 2004. The change in selection for the vocational stream and the introduction of national examinations may have helped overall educational performance to improve (Box 1).

Total expenditure on education in Poland is fairly typical among OECD countries when measured as a proportion of GDP (Table 3). As in most countries, the share of private expenditure in education is insignificant except at the tertiary level. At primary and secondary level, teachers' relative salaries are very low by international standards. As a proportion of per capita GDP, they are lower only in Iceland and Slovakia (OECD, 2005d, p. 356). Another unusual feature is the absence of significant differentiation between salaries for primary, lower and upper secondary schools: in Poland they are largely identical (allowing for length of service and other factors), whereas in most countries they vary by 20 to 30%. Teaching hours are somewhat lower than the OECD average but around the average for European countries, except at primary level where they are among the lowest.

In contrast to their low earnings, teachers are well protected in terms of their employment contract by the Teachers Charter (Box 2), which originally dates from 1982, but which was substantially modified in the 1998 reforms to improve the career structure (this was one of the recommendations of the 1995 *OECD Review of National Policies for Education in Poland*). As a result, teachers now work within a four-grade structure where (on application) they get automatic promotion and salary increases on meeting certain requirements for qualification and length of service. Teachers' pay can be varied for certain other reasons such as for extra work and for work in certain locations or subjects. Supplements can also be paid based on teachers' performance, and to teachers in rural areas. Supplements are not paid to compensate for cost-of-living variations across the country, although such variation is large, nor are they paid specifically to attract teachers in subjects or locations where they are in short supply.

There has been a considerable move towards decentralisation of the organisation and financing of education. Financing for compulsory school education is provided by local governments out of the non-earmarked grant they receive from central government. Under this system, in operation since 2000, the grant is allocated according to a number of quantitative education-related indicators. It does not take into account average school size, teacher-pupil ratios and intensity of school transportation for pupils, all of which are found to influence the costs of educational provision (Swianiewicz *et al*, 2005). The algorithm details are announced each year in an ordinance of the Minister of Education.[3] Some anomalies exist, in particular, the indicator of resources required for special-needs education is the number of children in special schools for such children, rather than the number of children with special needs; this produces an incentive to move such children into special schools, whereas this may often not be the best way to educate them. The algorithm includes no indicator for pre-school education before the age of 6, making it more difficult for local government to respond to any strong local demand for such pre-school facilities.

3. The 2005 version covers about 50 items, based on the number of "standardised" pupils, calculated with different weights for students of various categories, including ethnic minorities, disabled and those with special education needs, and also the number entitled to extra curricular activities. It differentiates between public and non-public schools and includes different allowances for specialised schools in small towns (under 5 000 people) or rural areas, and for certain specific types of specialised schools – music, dance, sport, bilingual. There is also a factor intended to take into account the number of teachers in each category of professional career employed in the *Gmina/Powiat* and whether they are in rural or urban schools.

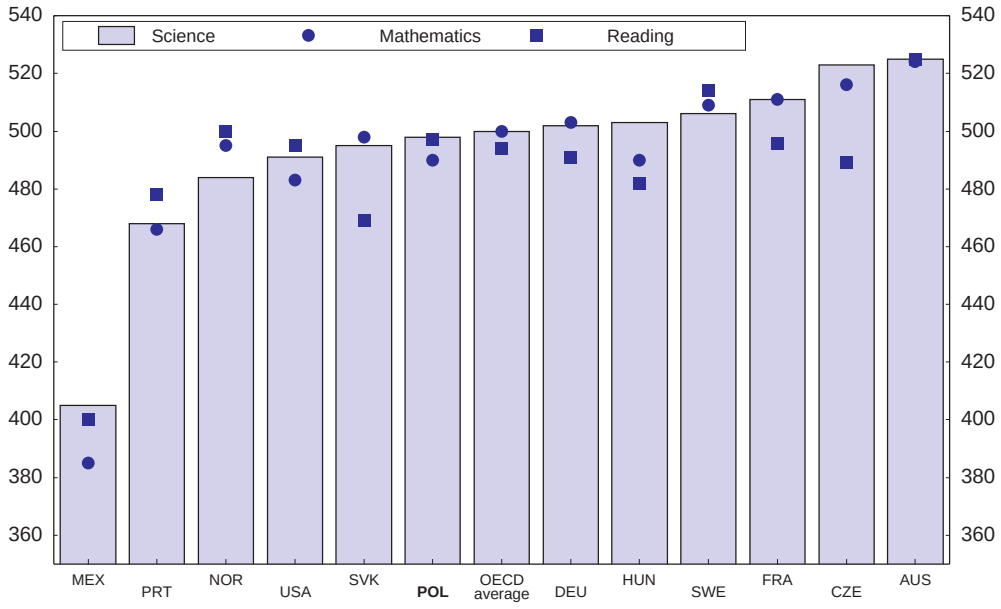
Box 1. **Educational performance**

The OECD's Programme for International Student Assessment (PISA) provides international comparisons of children aged 15 in terms of their ability in mathematics, science and reading; the tests focus particularly on students' problem-solving ability in each of these domains. Performance in Poland is similar to the OECD average in all the subject areas tested (Figure 2). These statistics refer to national averages: variation within countries is high compared with variation between countries – more than a third of Polish children scored higher than the average mathematics score for Switzerland, the highest ranked country, and a third of Swiss children scored below the Polish average.

This performance is significantly better than obtained by Poland in the first PISA exercise, which took place in 2000. Many other countries improved too, and Poland's ranking moved up less than the increases in absolute scores might indicate (Table 2). PISA procedures are designed to minimise the impact of changes in structure and organisation of education on observed outcomes, so there are good reasons for thinking that this is a real improvement at least in part linked to earlier policy changes. The improvement was mainly a result of many fewer low scores, rather than an increase in scores all the way up the scale, and variation between schools fell.

These changes seem to be linked with the introduction of lower secondary schools in 1999 and the increase in the age of selection for secondary vocational schools. In 2000, many of the low PISA scores were obtained by children in basic vocational schools, who, before the 1999 changes, were not expected to continue through to the *Matura* exam; these low expectations appear to have been reflected in their performance. Now, at age 15, such children are still in general schools, where expectations are higher, and they may have responded by performing better. This is not the only explanation, since the improvement in the science ranking was due to better results from better performing children.

Figure 2. **Comparative educational performance**
Mean score in student performance, all students, 2003



Source: OECD (2004), Learning for Tomorrow's World, First results from PISA 2003 (Annex B, Tables 2.5c, 6.2, 6.6).

Box 1. **Educational performance** (*continued*)

Table 2. **Changes in PISA education performance measures, 2000 to 2003**

	Reading		Mathematics: space and shape scale		Mathematics: change and relationship scale	
	PISA 2000	PISA 2003	PISA 2000	PISA 2003	PISA 2000	PISA 2003
Australia	528	525	520	521	522	525
Czech Republic	492	489	510	527	484	515
France	505	496	501	508	515	520
Germany	484	491	486	500	485	507
Hungary	480	482	478	479	479	495
Mexico	422	400	400	382	358	364
Norway	505	500	490	483	494	488
Poland	**479**	**497**	**470**	**490**	**451**	**484**
Portugal	470	478	440	450	448	468
Sweden	516	514	510	498	502	505
United States	504	495	461	472	486	486
OECD average[1]	499	494	494	498	487	499

1. Excluding the Netherlands, Slovak Republic, Turkey and the United Kingdom.

Source: OECD (2001), OECD (2004), PISA 2000 and PISA 2003.

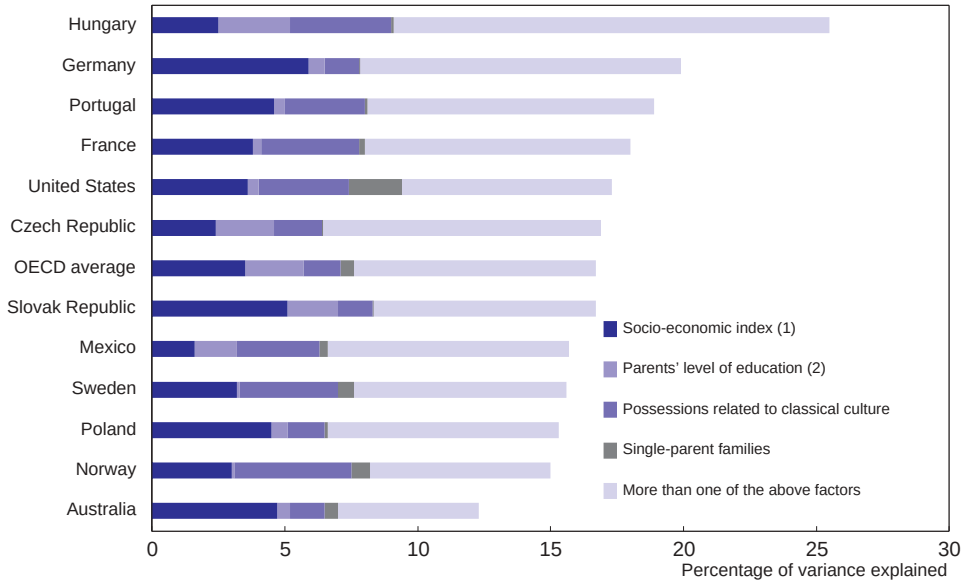
In 2002 selection for lower secondary schools was switched to a residence basis – schools are obliged to take any student from within their catchment area who wishes to attend, and this may also have played a role in improving scores among lower-ability children (Białecki, 2005). Parental occupational status affects educational performance as much if not more in Poland than in most other OECD countries (Figure 3). But this impact is not transmitted through schools themselves, where the contribution of variations in the average socio-economic make-up of schools to PISA scores is smaller than all OECD countries other than Norway, Iceland and Finland (OECD, 2004, Figure 4.11, p. 188).[1] Other possible factors in the improvement in overall Polish performance between 2000 and 2003 include the introduction of nationwide assessments and the gradual improvement in student-teacher ratios that the demographic changes have permitted. However, such contributions may only be inferred rather than demonstrated, since it is extremely difficult to identify statistically at an aggregate level which factors contribute to educational success. In particular, while smaller class size is practically universally cited, by teachers and parents, as highly desirable, many studies conclude that there is little or no impact on learning in statistical terms.[2]

1. More generally, in the Polish 2003 PISA results between-school variation was smaller relative to within-school variation than it had been in 2000 and than in most OECD countries.

2. There are a number of possible reasons why class size may appear statistically insignificant when it is actually important. For example, in Poland, smaller schools in rural areas may have low class sizes, but also have poor levels of equipment. In all countries, if schools seek to avoid too much variation among students' performances, there is likely to be a tendency for difficult children to be put in smaller classes and/or for better or more experienced teachers to be allocated more difficult and/or larger classes. Swianiewicz *et al*. (2005) find for Poland that in rural areas *larger* class sizes are associated with *better* results.

Box 1. **Educational performance** (*continued*)

Figure 3. **Influences on education outcomes**
Explained variance in student performance, 2003



1. The highest international socio-economic index of occupational status between both parents.
2. The highest level of education between both parents.

Source: OECD (2004), Learning for Tomorrow's World, First Results from PISA 2003 (Table 4.2).

Table 3. **Expenditure on education by level of education, selected countries**
As a percentage of GDP, 2002

	Pre-primary education	All primary, secondary and post-secondary non-tertiary education	All tertiary education	Total
Australia	0.1	4.2	1.6	6.0
Czech Republic	0.5	2.9	0.9	4.4
France	0.7	4.2	1.1	6.1
Germany	0.5	3.6	1.1	5.3
Hungary	0.8	3.3	1.2	5.6
Mexico	0.6	4.1	1.4	6.3
Norway	1.0	4.3	1.5	6.9
Poland	**0.5**	**4.1**	**1.5**	**6.1**
Portugal	0.3	4.2	1.0	5.8
Slovak Republic	0.5	2.8	0.9	4.2
Sweden	0.5	4.6	1.8	6.9
United States	0.5	4.1	2.6	7.2

Source: OECD (2005), *Education at a Glance*.

Decentralised responsibility for provision of compulsory school education has passed to two levels. *Gmina,* the lowest level of local government (with a mean population of around 7 300), are responsible for primary and lower secondary (*gimnazjum*) education, while the *Powiat* level (mean population about 75 000) looks after upper secondary, as well as post-secondary non-tertiary education and

public special schools. In the early 1990s, the grant for educational expenditure amounted to 15% of total local government income (taking *Gminas* and *Powiats* together) and had risen to 30% by 2004. Local government is free to use these resources as it wishes, *i.e.* not necessarily on education, but actual expenditure is at least as high as the algorithm implies in all parts of the country; overall, local government spends up to 20% more than this level out of its own resources (Swianiewicz *et al*., 2005).

At the same time as the education system has been adjusting to the reforms of the 1990s it has also been facing a major demographic change, of a similar magnitude to that in other formerly centrally planned central European countries, but more severe than experienced in other OECD economies. In the 1980s the birth rate began to fall and has declined further since. In 1990, approximately 700 000 children entered the first year of primary school but by 2004 only 400 000 did so, and the cohort size is still diminishing (Figure 4). Falling numbers should ideally make reforming the system easier, since it implies increasing resources per student, even if overall expenditure does not rise. It should allow for retraining teachers and concentrating more resources in areas or subjects that need them.

Box 2. **The Teachers Charter**

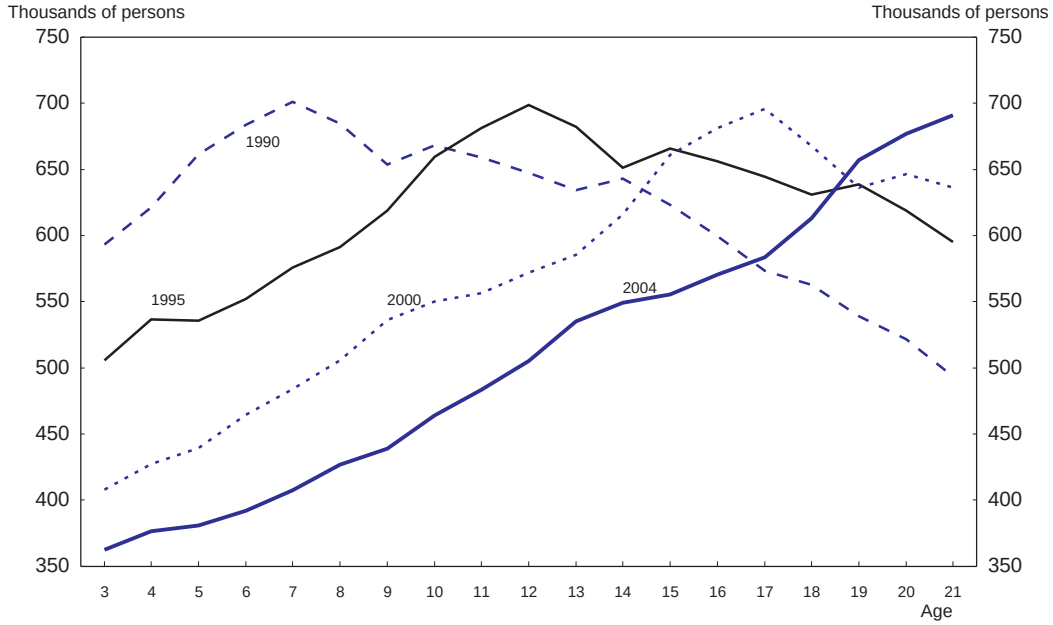
The professional status and employment rights of teachers are defined in the *Teachers Charter*, first adopted in 1982 with recent important amendments in 2000, 2001 and 2004. The Charter provisions apply to pedagogical staff of almost all public and non-public institutions from pre-school to secondary level as well as teachers with higher professional grades working in several other institutions where pedagogical qualifications are needed.

The Charter sets the requirements for the profession (relevant higher education degree or degree from teacher training college) and defines four grades of professional career: trainee, contract, appointed and chartered teacher. The Charter also defines minimum remuneration levels for teachers at all career stages, which are linked to average wages in the public sector. There is a steep progression with trainee teachers guaranteed to receive an amount proportional to the basic rate set in the budget law and contract teachers receiving 125% of the trainee salary, with corresponding figures for appointed and chartered teachers at 175% and 225%. These minimum rates are composed of several elements, with the Ministry of Education defining minimum basic rates and agencies running schools obliged to define annual rules for granting bonuses so as to achieve, on average, minimum remuneration levels for teachers at all stages of the professional career. Theoretically, it is possible for teachers to go through all career stages within 10 years. In 2004, the average salary of teachers was just above the average in the public sector. An important observation is that in practice there is very little geographic variation in teachers' salaries in contrast to strong regional variation in average wages and labour market conditions in general. Additionally, in contrast to other OECD countries there is practically no variation in teachers' salaries according to the level of education at which they teach.

Maximum working time is defined as 40 hours per week, including 18 hours (actually 18 units of 45 minutes) of teaching, for teachers in most categories of schools. School principals have limited powers to demand specific actions from teachers beyond the teaching load. The Charter also provides substantial employment protection for teachers, particularly those at later career stages.

Problems with the Teachers Charter that have been mentioned by many stakeholders, including local authorities running schools, are primarily related to the fact that current regulations make the labour market for teachers very rigid and limit the room to manoeuvre of bodies running the schools. The combination of obligatory steep wage increases related to teachers obtaining higher qualifications (but not necessarily linked to teaching performance), strong employment protection, limited options for increasing work load (which is among the lowest among the OECD countries) and/or changing responsibilities of employed teachers make the management of schools very difficult in an environment of rapidly declining school-age cohorts. Additionally, existing rigidities in rules governing teachers' employment and incentives built in to the Charter provide no monetary motivation for competition among teachers that could lead to improved quality of educational provision. Teachers' wages are determined almost entirely by their formal qualification level, rather than by their actual work effort and teaching achievements.

Figure 4. **School-age population by age**
1990-2004



Source: GUS (2005), Education in the School Year 2004/2005.

However, reallocating resources is difficult if it involves closing schools or moving teachers from one area to another: local political pressure may prevent school closures, for example. One response to local objections to closures has been to set up non-public so-called 'small schools', normally only for the first three grades. A major advantage they have is the fact that some of the Teachers' Charter regulations concerning teachers' wages do not apply (see Box 2). Some of these initiatives have been very successful. If their success is due to efficient organisation rather than relying on short-term goodwill from teachers, parents or local government (in some cases school premises are provided free of charge by local government, for example), this is a good indication that the Teachers Charter itself can be an obstacle to improved cost-effectiveness.

While finance and general management of schools is the responsibility of *Gmina* and *Powiat* levels of government, the Voivod level still plays an important role. Each Voivod has a *Kurator*, or schools superintendent, whose secretariat (*Kuratoria*) is responsible for ensuring that national education policy is implemented and for monitoring the quality of education. *Kuratoria* also retain some powers to intervene in management or strategic decisions at local level, having some say in decisions about school closures, for example, and they are also involved in other tasks such as the provision and organisation of teacher training. Some schools have been closed, but their numbers fell by only 2% between 2001 and 2004, though the number of children fell by almost 7%.

However, it is not easy to determine the optimal structure for organising education. Economies of scale and relatively sparse populations may necessitate, at a minimum, coordination above the level of the *Powiats*. In particular, this may be the case for planning upper secondary technical and post-secondary non-tertiary provision, even though *Powiats* have legal responsibility for such schools. While the *Kuratoria* could fulfil such a role, it may be sufficient for central government to ensure that regulations and financial rules facilitate co-operation between neighbouring *Powiats*. As local governments acquire further experience in running education, the role of the *Kuratoria* may need to evolve further.

First of all, the position of the *Kuratoria* in the governance of education is ambiguous: although responsible for implementing national education policy, they are appointed by the Voivods and answer to them, not to the national education authorities. In order to avoid conflicts of interest in their assessments of outcomes, quality-control bodies should – arguably – have no ability to directly influence the management of individual schools or decisions on closure; in addition, if the quality control body is responsible for *national* education policy, it should not be under local or regional political control. This would imply separating quality control (*i.e.* both direct monitoring of school performance and the dissemination of assessments of results and methods to schools and local government) from other potentially useful functions of regional bodies, perhaps by separating this function from the *Kuratoria* and bringing it more directly under the education ministry (even if it retained some regional structure).[4]

Secondly, the *Kuratoria's* approach to monitoring school quality and performance is sometimes criticised as too centred on "box ticking", verifying formal respect of criteria on teacher qualifications, equipment and so on, to the neglect of more careful evaluation of teaching performance and educational outcomes. It is not clear how widespread such a problem may be; *Kuratoria* employees are required to be well qualified and to have teaching experience. Whether or not responsibility for quality control should be reassigned, it seems clear that it is currently under-exploiting some of the objective information on school performance that the new system of national examinations has made available.

Pre-primary schooling

Effective early childhood education (*i.e.* from ages 3-5) can be very important in preparing children for more formal school education (see, *e.g.* Heckman, 2000; Goodman and Sianesi, 2005),[5] especially for children of poorer families (Murawska, 2004). Poland stands out among OECD countries with its low participation rates in pre-school education. In 2004/2005, 38% of children aged 3-5 participated in pre-school education, compared with an average of over 60% in EU countries. Out of the sample of Polish children in the PISA 2003, 44% had had pre-school education; since these were children who were 15 years old in 2003, pre-school participation in Poland may even have fallen during the 1990s. In view of this, the introduction of compulsory pre-school education at the age of 6, prior to starting primary school at aged 7, from 2004/05 was a welcome decision, and it indeed brought the participation rate of 6 year-olds close to 100%.

Participation in pre-school education is much higher in urban than rural areas.[6] In poor, remote areas with high unemployment and social problems, small *Gminas* may have no kindergartens, and participation rates among 3-5 year-olds are close to zero (Herbst, 2004). Such a substantial variation

4. See RPO (2003) for discussion of the importance of clear lines of responsibility in education.

5. Aggregate data do not always provide strong support for this in the general case. For some countries there appears to be no impact of pre-school attendance on PISA results for 15 year-old children, although the impact is positive for the majority of countries, including Poland. The effect of attending pre-school for at least one year on the 2003 PISA maths score in Poland is to increase it by 38, compared with a standard deviation of around 100. When corrected for the socio-economic background of the children, the impact is only 25 points, statistically significant but a rather smaller impact than that of about two-thirds of the OECD countries. It is of the same magnitude as the improvement in average maths scores between 2000 and 2003.

6. In 2004/05, urban area participation was 55% among 3-5 year-olds, compared with under 18% in rural areas (GUS, 2005). Furthermore, the urban participation rate increased by 6.7 percentage points from 2001, compared with an increase of only 2.4 points in rural areas. Some parents living in rural areas and commuting to work in cities send their children to kindergartens in cities, as is evident from an apparent urban participation rate above 100% for children aged 6 in 2004/05. But this is not the main explanation for the rural-urban gap.

clearly does not help to remove the differences in educational outcomes among regions and between rural and urban areas (irrespective of the sources of these disparities) and may help to perpetuate the economic and social disparities too.

Provision of pre-school education is currently the sole responsibility of the *Gminas*, which need to find financial resources for this in their general budgets, as pre-school education is not included in the educational subsidy. This is likely to have limited the availability of pre-school education in less affluent *Gminas*. But this is not the only reason for lack of provision. *Gminas* are formally obliged to provide kindergarten for free (not including meals) for up to 5 hours a day to all children (3-5 years of age) whose parents ask for this. While there is some evidence that this right has not been respected,[7] there is clearly also a constraint on the demand side too – many parents, especially in rural areas, do not recognise the gains from pre-school education and prefer to have their children at home, even if such facilities are available.

It seems clear that educational performance would improve if more children attended pre-school, and the government's intention to introduce general pre-school education for 5 year-olds is a step in the right direction. To ensure that finance is available the number of pre-school children should be included as one of the indicators in the algorithm for the grant to local government, and parents should be encouraged to send their children. If the current lack of demand from parents is due to strong opposition, rather than lack of awareness of the benefits, it may not make sense to make pre-school education compulsory immediately, but first to disseminate information and encourage participation by imitation.[8]

Compulsory school education

Since the changes introduced in 1999, the broad structure of compulsory education in Poland now resembles that of the "comprehensive school" found in many OECD countries. For some years, while schools and teachers adjusted to the changes, judging the reformed system has been difficult, although the improvements in PISA scores are encouraging. However, by now the system should have settled down, and it is important to look for further improvements, in terms of quality, equity of outcomes and cost-efficiency.

As discussed above, the introduction of lower secondary schools and the change in organisation of and selection for the vocational tracks significantly reduced attendance at vocational schools (Table 4) and have probably contributed to improved educational performance. But employer surveys show that they still find new entrants to the labour market lacking in certain important skills, such as analytical thinking, communication, IT and information processing, foreign languages and teamwork.[9] This is perhaps especially important for those children who would previously have been in basic vocational schools (and would have left before age 19 without reaching the *Matura* exam): anecdotal evidence suggests that some do indeed now remain in school, but they do not accomplish much in the final years, leaving at 19 unable to go on to tertiary education but ill-equipped for the labour market.

7. The Ombudsman for the Rights of Children has been asked to investigate this.

8. One programme run by an NGO consisted of providing pre-school education by "travelling teachers"– well trained teachers travelling from one village to another. Organising classes for children for a few hours a day, a few days per week, is reported by its organiser to have had good results; this might be a cheap way both to raise standards for participating children and to encourage parents to demand more permanent facilities. See *Comenius Foundation*: http://www.frd.org.pl/ankieta.html

9. These were identified in telephone research by the Polish Confederation of Private Employers, Lewiatan.

Table 4. **Secondary school students by school type**
Per cent

School year	General secondary	Basic vocational	Specialist secondary	Technical secondary
1990/1991	23.47	42.96	..	33.57
1995/1996	30.34	32.07	..	37.60
1998/1999	34.09	26.55	..	39.36
2002/2003	40.83	14.52	5.16	39.49
2003/2004	41.59	11.28	9.41	37.72

Source: Central Statistical Office.

One of the reasons for the decline in enrolment at vocational schools is that many of them were previously attached to or dependent upon major industrial employers in their catchment areas, companies which have now closed or shrunk dramatically, and which are in any case in declining industries. On the other hand, if they can be designed to follow the evolving needs of the labour market, there should be a role for modernised vocational schools. They are unlikely to be able to rebuild the same relations with industry as previously but will have to pay attention to labour market developments and create links with local companies. International experience shows that many countries are struggling to find the most effective way to prepare young people for the labour market, particularly those who are unlikely to get tertiary-level qualifications.

Within the organisational framework described earlier, the autonomy of headmasters appears to be substantial compared with that in other OECD countries (OECD, 2004). However, the Education Ministry has recently expressed concern that more recent legislative changes subjecting headmasters to financial constraints imposed by local authorities and binding recommendations made by *Kuratoria* may have limited their freedom (MNES, 2005). While overall financial constraints obviously have to be respected, and there is a role for feedback from the *Kuratoria* on teaching methods, the evolving nature of the labour market and educational environment suggests that it is also important to allow individual schools freedom to innovate, both in terms of pedagogical approach and organisation.

But such innovation needs to be subject to monitoring and assessment, which seems to be quite a severe weakness in educational policy – and in other policy areas – in Poland. The introduction of the system of common national exams at the end of each level of education was an important reform. The exams take place at the end of each level of primary and secondary education. The results of the test at the end of primary school are used only for informational purposes and do not play a role in selection for lower secondary schools, where admission is based on catchment areas. The results of a test taken at the end of lower secondary school might determine pupils' chances for acceptance in certain types of upper secondary school. The new *Matura* exam at the end of upper secondary education, which started in 2005, mostly replaced the entrance exams for tertiary education. International evidence points to the existence of external exams as vital for ensuring efficiency in a decentralised educational system such as Poland's (Wößmann, 2003). First, comparability of results introduces a simple and effective quality check to motivate providers of educational services. Second, test results provide a powerful tool for analysis of educational policies and should play a part in devising and assessing policy initiatives.

Use of performance indicators in education

The tests not only provide information on how individual students perform compared with national averages but also allow comparisons between schools to be made, including calculation of "value-added" indicators (*i.e.* which look at overall school results taking account of the performance of the same students

when they entered the school). So far, such indicators are rarely available to schools or local authorities in Poland.[10] However, some local authorities (in Krakow, for example) have implemented experimental projects, and the Central Examination Commission is also evaluating alternative methods for calculating value added indicators.

Availability of test results has spurred some academic research into the determinants of spatial variation of test results (Swianiewicz *et al*., 2005; Herczyński and Herbst, 2005; Śleszyński, 2004). There is a visible gap between rural and urban areas. The best average results are recorded in large cities, with somewhat inferior outcomes in smaller cities; rural areas are characterised by the worst performance. Strong regional patterns also emerge.

Empirical work does not yet provide good explanations for all of these phenomena, nor does it show whether the educational system works to reduce inequalities in outcomes or increases them. Analyses of determinants of average test results in primary and lower secondary schools at the *Gmina* level confirm the importance of local human capital and economic conditions. Regions with higher average education of adults and with lower unemployment and lower social spending tend to perform better. But there is no consensus on how to explain variation in test results among schools with similar student populations and background conditions. The link between various measures of overall local spending on education and test results is a complicated one. If anything, there appears to be evidence suggesting a *negative* impact of higher spending. The overall conclusion, not a very surprising one, appears to be that what matters most is how the money is spent. The link with available measures of teacher qualifications (numbers of teachers with higher formal qualifications) is not robust. In the case of rural *Gminas*, regions with larger schools appear to be performing better on average, but *Gminas* where many children need to rely on school transport to get to schools tend to perform less well.

Performance indicators cannot tell the whole story, since education is about more than exam results. Nevertheless, making "value-added" indicators available to schools, local and national education authorities and researchers should help to improve understanding. Care would have to be taken with publication to avoid unjustified stampedes of parents towards good or away from bad schools (in practice this would also be limited by the catchment area policy, but this in turn could lead to tensions); it might be limited to identifying the most poorly performing schools, but combined with a policy which guaranteed special intervention at the same time. In the United Kingdom and the United States (the No Child Left Behind initiative), for example, measures are in place to identify severely underperforming schools and to take action to improve their performance, with the possibility of closing them if improvements are not forthcoming.

As already mentioned, teachers' salaries are not a function of educational outcomes, although in theory school heads have the power to vary pay as a function of performance. This power appears mainly to be used to reward teachers for additional tasks they might perform, rather than a function of their teaching results. Teachers are often opposed to more explicit links between pay and performance, since performance is so hard to measure. Because the quality of teaching is so dependent on attracting the best people, and encouraging the weakest to improve or perhaps leave the profession (Rivkin *et al*., 2005; OECD, 2005b), this should not be allowed to prevent experimentation and innovation. It would be useful to review employment protection and promotion rules as defined by the Teachers Charter, while investing in teacher training and setting incentives for teachers to raise their qualifications continuously. Efforts

10. In France, even although the authorities believe that the school is not the appropriate unit of analysis for educational outcomes, such indicators are published each year for individual upper secondary schools. They are not true value-added indicators, however, taking into account the social background of students at the school but not their level of performance on entry.

aimed at improving the prestige of the profession and preventing weakening of the position of teachers *vis-à-vis* pupils and parents may also be important.

Tertiary education

In 1991 there were some 400 000 students studying for tertiary degrees in public-sector Higher Education Institutions (HEIs). Fifteen years later there are nearly two million students, 30% of whom are studying in private-sector HEIs, which did not exist in 1991 (Table 5). The number and variety of HEIs is now considerable.

This section will not attempt to analyse in detail the whole of this structure, which ranges from language schools to technical universities. Instead, it will focus on two aspects of policy which have arguably not kept up with this extremely rapid expansion and which currently seem somewhat chaotic: quality of education and financing for both institutions and students.[11] The quality of education is partly a question of the multiplication of the number and type of HEIs and partly a (related) question of staffing.

Monitoring the expanding higher education sector

Very rapid expansion of tertiary education might be expected to cause some dilution of quality. The physical infrastructure of HEIs has been lagging behind – resulting in overcrowded lecture rooms and insufficient numbers of adequately equipped laboratories, for example. Tertiary education is now serving students with a broader spectrum of interests, and it may also be the case that the average level of secondary school graduates entering tertiary education has declined. If so, this would primarily affect HEIs offering fee-based courses, because public HEIs charge no tuition fees for full-time students and are therefore able to select the best students. Another trend has been for students to be focused on obtaining diplomas or other certificates, rather than learning for its own sake, so that demand for less challenging courses has increased. Non-public HEIs were most active in responding to such demand, with many of them offering poorly taught and undemanding degrees in popular and cheap-to-run fields of studies.

With all these changes, it is hard for anyone – in particular for prospective students – to have good information on the quality of different courses or institutions. Nevertheless, market forces have been working, as the number of students enrolled in different kinds of courses has changed substantially in response to information about labour market outcomes associated with different types of qualification. Between 2001 and 2004 there was a considerable increase in demand for courses on IT and engineering, but also international relations and sociology, while demand for courses on commerce or management and marketing plummeted. These falls appear to have been the consequence of unemployment among earlier graduates from such courses, which had been very popular in the 1990s but which often turned out to be of little value on the labour market. Better information might avoid so many people having to learn from their mistakes.

11. The Education Directorate of the OECD is undertaking a review of tertiary education in Poland during 2006.

Table 5. **Tertiary education in Poland**
Characteristics of selected types of HEIs

	Number of HEIs	Number of students (thousands)	Students in full-time day studies (thousands)	Number of students in 1990/91 (thousands)	Number of academic teachers (full-time)	Number of students granted masters degree	Total costs (2004) (million PLN)	Per cent of revenue from research	Main source of revenues from teaching activities	Unit costs (thousand PLN per student equivalent)
Public HEIs	126	1 337.0	777.7	403.8	74 687	Ca. 67% of graduates	10 851	12.5	71% from state budget	8 977
Private HEIs	301	580.1	137.9	0	11 075	Ca. 30% of graduates (25% of HEIs)	1 948	0.4	97% from fees	5 358
of which:										
Public universities	17	531.3	285.1	141.1	27 116	Ca. 80% of graduates	3 773	10.6	65% from state budget	7 538
Public technical HEIs	22	329.9	220.2	75.7	18 453	Ca. 67% of graduates	2 925	20.5	78% from state budget	10 249
Private economic HEIs	n/a	308.9	62.4	0	6 670	Ca. 40% of graduates	1 108	0.4	97% from fees	5 738
Pedagogical HEIs (public and private)	17	133.8	49.6	47.6	4 398	No	596*	2.5**		5 755**
Vocational HEIs (public and private)	181	206.8	94.5	0	-		662	0.1		4 189

Notes: Nearly 80% of all students in 2004/05 studied in HEIs belonging to the types described in the table.
Figures for Masters degrees refer to HEI graduates of 2004.
Of all masters degrees granted in 2004, 50% was granted to students of single stage (usually 5 years) courses and 50% to second stage – postgraduate (usually 2 years) courses.
* estimate based on public pedagogical HEIs figure and equal costs assumption in public and private HEIs.
** only public pedagogical HEIs.

Source: GUS (2005), [Szkołły wyższe i ich finanse 2004 (HEIs and their finances in 2004), Central Statistical Office, www.stat.gov.pl].

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As far as private institutions are concerned, it could be argued that a variety of levels of quality is to be expected and that, provided that competition ensures that the "value added" is related to the price paid, there is no problem. However, for competition to be beneficial to all parties, there needs to be some rules, and, in particular, readily available information on quality should be available. This has been lacking in the case of the new private HEIs, although there are certainly a number of successful non-public HEIs offering high-quality education (which are often first choices for candidates), showing that it is not a simple distinction between low-quality private and high-quality public institutions.

Quality control is currently carried out by two main institutions, the University Accreditation Commission (UAC) and the State Accreditation Committee (SAC), which address separate issues. The UAC is a non-governmental organisation established by the 17 leading public universities in 1997. One of its main activities is to grant accreditation to fields of studies at HEIs (*i.e.* to departments, not to institutions as a whole). The system is based on voluntary applications by HEIs, and the aim is to select departments offering the best standards in particular fields of study. Accreditation is valid for up to five years, and in 2005 the number of accredited departments oscillated around 250; only 33 HEIs out of over 400 received at least one accreditation. Although such voluntary schemes can help the best HEIs ensure recognition and can be a useful tool to help the best secondary school graduates select among HEIs, there is a risk of insider bias in such a system of self-regulation, although according to Macukow and Chojnacka (2003) this bias has been avoided.

The SAC was established in 2002, incorporating a number of pre-existing sector-specific agencies, with a somewhat wider role than that of the UAC.[12] Its primary objective is to ensure that all new and existing HEIs meet quality criteria in teaching particular fields of studies. SAC aims at evaluating all degree programmes; once an institution is selected by the SAC it cannot refuse to be evaluated. SAC evaluations lead to degree programmes receiving grades (outstanding / positive / conditional approval / negative). Conditional approval is accompanied by specific recommendations and deadlines for implementing them. A negative opinion would normally lead to the Minister of Education revoking or suspending the relevant licence.

The size of the SAC's task means that its evaluations may have a tendency to be too narrowly focused on specific standards and lead to a culture of compliance rather than one that seeks to improve quality, a point made in a recent World Bank report (World Bank, 2004). As that report suggests, the SAC should seek to develop the current approach from one of evaluation alone to one that encourages improvement by working in cooperation with organisations already involved in this, such as the UAC. The SAC itself argues that its assessments do focus on improving quality and do not just test compliance with legal standards, but many observers believe it needs to do more.

The quality of teaching staff

The availability and competencies of the teaching staff greatly influences the quality of tertiary provision. The increase in the number of academic teachers has been lagging behind the boom in student admissions, resulting in an increasing average student-teacher ratio. Academic staff have increasingly taken multiple jobs, as mushrooming private HEIs were struggling to meet formal criteria related to academic staff. This problem has been partially resolved by regulations limiting the scope for multiple employment that were included in the 2005 law on higher education. Along with regulations on maximum student-teacher ratios this may constrain the increase in the number of HEIs.

12. There are also a number of specialised accreditation bodies.

It is therefore important that HEIs become attractive work places for able teachers and researchers. Partly this is a question of salaries, which need to be related to market demand for different kinds of teachers. In the more academically oriented HEIs, it is also a function of the career structure. The current system is widely perceived as not offering enough flexibility and thus not conducive to mobility (particularly international mobility) of academic staff. It is not open to external competition and often promotes average people rather than those who are most competitive in the global market. Such a system has a tendency to be self-perpetuating. More transparency, in particular the disclosure of the scientific record (publications) by HEIs, departments and professors is a prerequisite for any reform. Such disclosure (*e.g.* making the publication lists available on websites) might emerge spontaneously, but given the apparent weakness of this mechanism up to now, more public and/or administrative pressure would be useful.

This could also make the work of the State Accreditation Committee easier, and the SAC itself might be in a good position to apply the necessary pressure. Openings for academic positions should be advertised widely so as to eliminate the practice of organising contests suited for pre-selected candidates, often from the same institution. Another solution that might help in making the career paths more elastic would be changing the character of the *habilitation* degree (a pre-requisite for professorship). It could even be abolished, though premature abolition, without a competitive career mechanism already in place, would be harmful, removing the only existing method of quality control (even if mostly formal) on promotion. A survey by the General Council for Higher Education suggests that there is support for such reform from an increasing number of academics themselves (GCHE, 2005). Academic wage levels and wage differentiation probably need to increase as well and to take into account the increasingly international labour market for good academics, if mobile top performers are to be induced to stay at Polish HEIs.

Financing the tertiary sector

Even if some efficiency gains may be available, wage costs in HEIs, especially some in the public sector, will have to increase if quality is to be maintained and improved, and in many more technical subjects higher expenditure on non-wage items is necessary to provide modern equipment and facilities. Despite these pressures, full-time students in public sector HEIs are still not expected to make any contribution to tuition costs (the Polish constitution states that full-time education in public institutions should be free, though this does not apply to part-time and evening courses, of which many exist and for which fees are charged), while those in private-sector HEIs pay the full cost, resulting in horizontal inequities. In the medium term, economic growth should mean that the state can devote increasing resources to higher education, and this may also be one use for funds from the European Union, but over the next few years significant publicly funded general expansion is not feasible.

This situation is almost certainly resulting both in under-funding and under-provision of many types of tertiary education and research, notably where per-student costs are high, such as equipment-intensive subjects. At the same time it is creating inequities among students. Some poorer students who might attend the more prestigious public institutions do not do so because they cannot easily finance living expenses even if tuition is free. Maintenance grants are available, some based on means-testing, some on academic results, at the discretion of the HEIs using funding provided by the state, and some from EU funds; about one in five students is in receipt of such support. Although there is a student-loan scheme, take-up is extremely low, probably because repayment has to start two years after the loan is taken out (*i.e.* often before studies have terminated) and because a bank guarantee is required for the students from the poorest families. Studies show that in many OECD countries much of the overall social benefit from tertiary education accrues to the students themselves, and so, despite the availability of maintenance grants, higher education finance in Poland is probably regressive. There is thus a case, both on efficiency and equity grounds, for requiring public HEIs to charge cost-related fees, while at the same

time switching more of the public finance available for higher education from direct subsidies for HEIs to means-tested support for students.

Furthermore, the student loan scheme appears dysfunctional. The objective of such a scheme is partly to overcome the reluctance of risk-averse young people to borrow, as well as market-failure and transactions-cost problems that result from a lack of credit-worthiness for those from less well-off families. Such difficulties cannot be overcome by a wholly private scheme, especially if loans have to be paid back before the investment is complete. More promising are programmes such as those adopted in Australia, New Zealand and the United Kingdom where loans may be granted by private-sector banks, but the risk is largely carried by the state, and where reimbursement is conditional on labour-market success – so-called income-contingent loans. Reimbursement can also be facilitated by provisions to collect it through the income-tax system. One potential difficulty here is "leakage" from graduates who may leave the country to avoid repaying loans, a particular concern for New Zealand, for example. This is a real problem, but should not prevent the introduction of a scheme, perhaps initially limiting overall loan size so that such temptations are not too great. The government could also accept that some losses from a small number of people who never intend to return to Poland might be a reasonable price to pay for greater efficiency. This is best mitigated by co-operation at the EU level and through tax-treaty agreements with other countries to allow loans to be collected from incomes earned abroad.

Adult learning

Several studies have found that adult education and training have a significant impact on earnings (**Box 3**). Productivity, wage levels and employment prospects all benefit, even though it can be difficult to identify the effects of training relative to other factors, and the best results are achieved by young and highly educated workers (OECD, 2004). This points to one of the dilemmas faced in Poland: whether to concentrate training resources on those who might need them the most – notably older, unskilled people – or on younger, already more highly-trained, people where returns appear to be higher.

Box 3. **The impact of adult learning on earnings**

Several studies have found that adult education and training have a significant impact on earnings. Ok and Tergeist (2003) present evidence that reveals the positive association between training and worker productivity and between training and wage levels in countries such as the United Kingdom, the United States, France, the Netherlands, Spain and Germany. In the United Kingdom, Loewenstein and Spletzer (1999) estimated that one week of employer-paid training of newly hired workers led to 1.4% higher wage growth after two years. Similarly, Booth and Bryan (2002) found that one week of accredited formal training in Britain led to about 1% greater wages from subsequent employers.

A more recent study undertaken by the OECD also finds wage premiums in a number of Member countries (Austria, Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, the Netherlands, Portugal and Spain) when comparing wage growth for those who have and have not received training. Based on European and national panel data, wage premiums through participation in education and training courses in the latter half of the 1990s ranged from an apparently negligible effect in France to 2.5% annually in Germany and 5% in Portugal (OECD, 2004). This study also shows that workers usually get a lower wage premium if they stay with their employer after receiving training. There seem to be higher returns to learning taken with previous employers, with best results achieved by young and highly educated workers. Trained workers also enjoy a lower probability of unemployment than their non-trained counterparts, and better re-employment chances after lay-off. However, some researchers question the scale of returns presented in different studies, which may be overstated due to the difficulties in clearly identifying the effects of training relative to other factors, because of selection bias, for example (Leuven, 2004).

Source: OECD (2005a), Thematic Review of Adult learning.

Table 6. **Participation in adult learning, selected OECD countries**
2002

	Adjusted participation rate[1]
United Kingdom	6.9
Denmark	6.7
Switzerland	6.2
Sweden	5.5
Finland	4.5
Norway	4.3
Unites States	3.3
Germany	3.3
Canada	2.9
Netherlands	2.9
Austria	2.8
Spain	2.6
Korea	2.4
Portugal	1.8
Hungary	1.4
Poland	**1.4**
Mexico	1.0

1. The adjusted participation rate (APR) is calculated to take into account the frequency with which adults participate in learning and the length of courses they attend. If all adults spent 35 hours per week for 52 weeks in such courses the APR would be 100.

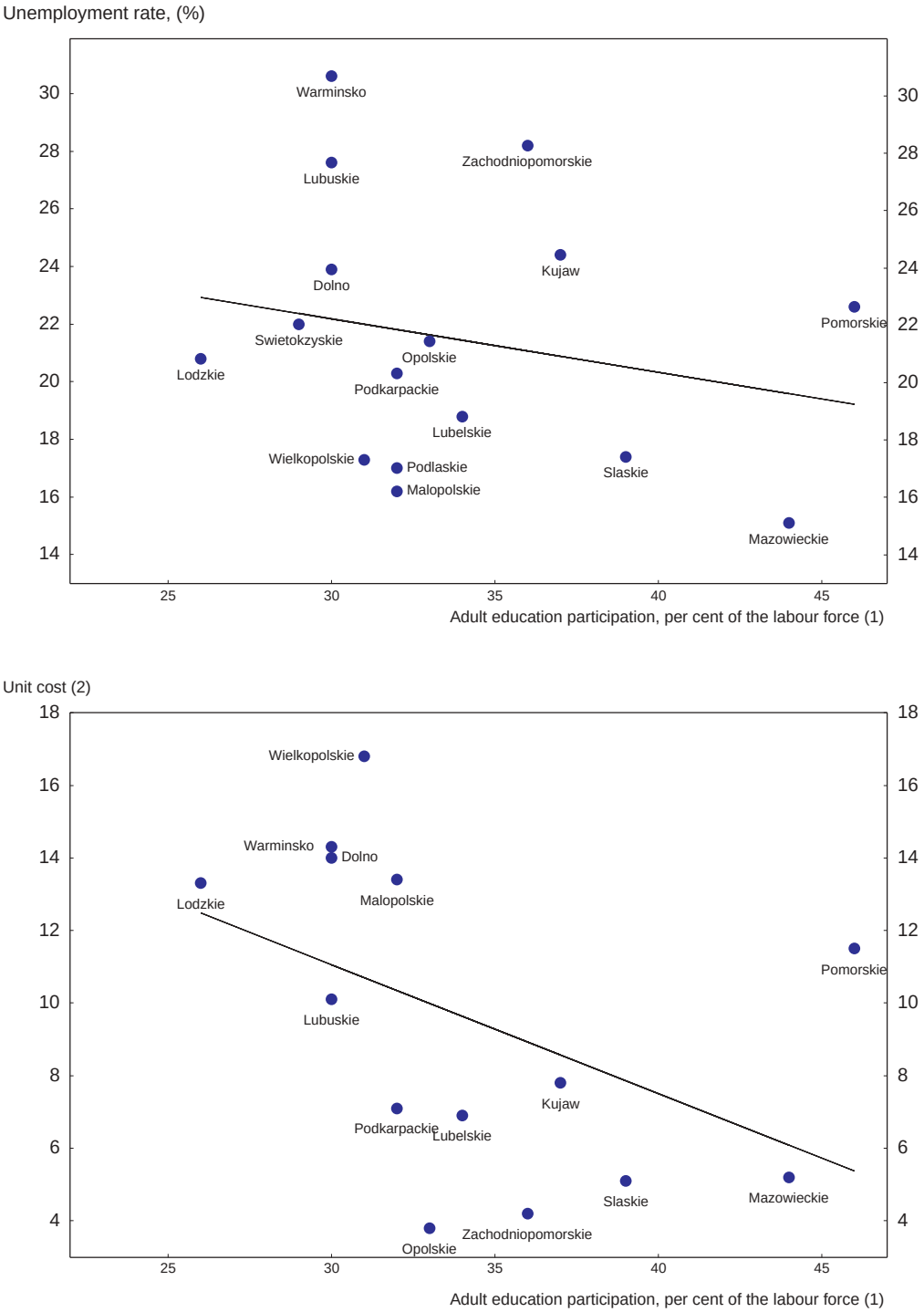
Source: OECD (2005c), *Promoting Adult Learning*.

Given these benefits, participation in adult vocational training in Poland is probably too low. Measures that take account of both the frequency with which people take training courses and the length of those courses show that Poland is at the bottom of a range of countries in overall provision, similar to Hungary but well below Nordic countries as well as others such as the United States and the United Kingdom (Table 6). This low ranking is due to the low frequency with which Poles participate in training, rather than shorter periods of training.

Regional variation in participation in adult training is also quite considerable. It is highest in the voivodship of Mazowiecke and Pomorskie, almost twice as high as in Łódzkie at the other extreme (Figure 5). Because of the heterogeneity of the types of training and education included under this heading, it is unclear whether this variation reflects differences in provision or costs of training, or differences in demand from either individuals themselves or from their employers. If anything, training also appears to be more frequent in regions with low unemployment (though this is not strong evidence and may be entirely due to Mazowieckie, which contains Warsaw). Indeed, no more than 4% of the unemployed receive any labour-office-provided training in a given year, even though labour offices can finance training for an unemployed person for up to 12 months, or 24 months for the unskilled.

Not only is participation in adult learning rather low by international comparison, and with considerable regional variation, it is also rather more skewed in other dimensions. Thus, while it is the case for most OECD countries that the employed participate more frequently than the unemployed, the higher educated more than the lower educated, the young more than the old, and employees of large enterprises more than those of SMEs, all these tendencies are more extreme in Poland than elsewhere (Figure 6). For example, considering participation by employment status, an employed person is twice as likely to receive some training in any given period as an unemployed person in Poland, whereas in the United Kingdom (where unemployment is close to one quarter of the Polish level) the gap is only about 10%, and the

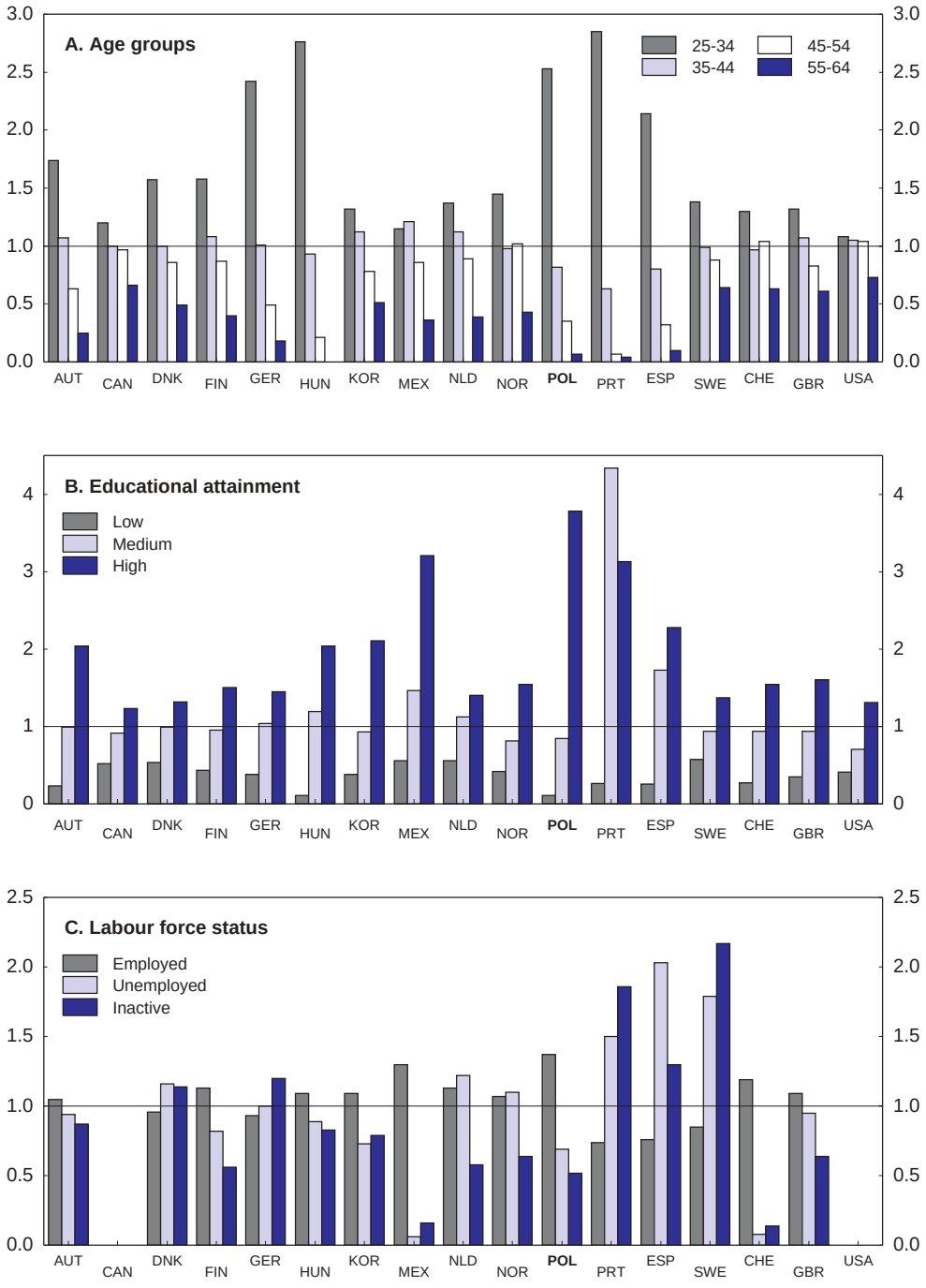
Figure 5. **Adult training, unemployment and unit costs**
By voivodship, 2003



1. This shows the proportion of workers who participated in at least one training programme in 2003.
2. Average price in euro of one hour training in Continuing and Practical Education Centers in 2002.

Source: OECD (2005a), Thematic Review on Adult Learning.

Figure 6. **Adult learning participation rate by socio-economic characteristics**[1]
Ratios of participation rates for each subgroup to the national average participation rate
25 to 64 year-olds, 2002



1. A ratio above 1 implies that the proportion of those in adult learning in a specific category is above the country average participation rate; a ratio between 0 and 1 implies that it is below the average rate. The ratios of sub-group participation allow the comparison of countries with data for a four-week reference period with those of countries with data for a one-year reference period.

Source: OECD (2005c), Promoting Adult Learning.

relation is reversed in the Nordic countries, the Netherlands and Germany, and especially in Spain and Portugal. Perhaps even more striking is the link with educational attainment where it is observed that people with tertiary qualifications are 30 or 40 times as likely to be engaged in adult learning as those with few or no qualifications.

It is clear from these data that adult learning is not very strongly targeted towards improving labour-market outcomes for those least well placed in the labour market – older workers, the unskilled and the unemployed. This does not necessarily mean that training provision is misdirected, as far as aggregate efficiency is concerned – it may be that the rate of return on training such people, comparing their likely productivity after training with what it would otherwise have been and the cost of the training, is much less than that for young, more highly qualified, workers, and might even be negative. If such rates of return were the only criterion, the conclusion might be to abandon trying to train older unskilled people and to deal with the employment consequences through labour market measures, such as allowing the minimum wage to fall enough that they remain employed, and to deal with the distributional consequences through in-work benefits.

In fact, evidence on the rate of return on adult training in Poland is very sparse. A recent study does suggest, however, that adult learning tends to be most effective in reducing unemployment in the case of older and less educated people (Liwiński, 2005). Since unemployment, as much as low earnings, is perhaps the main consideration in Poland, this provides support for arguments in favour of trying to target this group. There are a number of obstacles to be dealt with, both on the part of potential trainees and of employers.

Companies, when asked the reasons for not providing training themselves, point to adequate skill levels among current employees, too high costs associated with training and a preference for recruiting people who already possess the required skills (MEAL, 2004). In other words, the high level of unemployment and currently adequate supply of new, more highly educated entrants to the labour market reduces the incentive for individual employers to train. This serves to emphasise the importance of other policies to improve the labour market, if adult training is to be successful (see also OECD, 2006). But there is also limited interest in training on the part of the disadvantaged groups who should be able to benefit from them, for several reasons. Firstly, the lifelong learning culture has not yet been accepted by older and less educated generations. The understanding of the importance of education in shaping life paths is now much wider than a few years ago, but older adults still tend to believe that this is important for their children, not for themselves (CBOS, 2004). Least qualified and older people tend to be rather passive, lack self-motivation, do not see much sense in training and refer to financial and time constraints. When workers do participate in training, it is often due to some form of external pressure, such as an employer's instruction (in the case of training for employees) or fear of losing one's current job (ITE, 2005). It also seems to be the case that access to information on training availability can be a problem.

As in the case of higher education generally, there has been an explosion of entities that offer training of various sorts. There are now some 12 000 organisations offering adult training, ranging from large companies to individuals. The public-sector institutions mostly operate under the Ministry of Education, such as the Continuous Education Centres, Schools for Adults (which concentrate on general education) and Practical Training Centres (often formed from former basic vocational schools), which are more likely to provide labour-market-related training in cooperation with labour offices.[13] Private and public HEIs also offer training, where employers may co-finance the costs of their employees' training. In addition to these there are many smaller training centres, skill improvement centres, associations, foundations, companies, cooperatives and other entities providing training. Some of these fall within the

13. There are some 250 Continuous Education Centres and Practical Training Centres, about 300 Schools for Adults and nearly 400 HEIs participating in adult education or training.

education sector, either public or private, while a significant number are not governed by legislation on education but are commercial businesses.

Up to 2004 there were no controls and very little information on most of these private-sector business providers of training services. Since then, a voluntary accreditation system has been set up with a register of accredited entities maintained by the voivodship labour office. For the moment registration is largely formal, being based on meeting certain basic standards but not on quality of services provided, although it is intended that the system should act to improve quality. Registration is also voluntary, but there is some incentive to register because labour offices are not entitled to employ agencies that are not on the register.

It is hard to provide a clear picture of financing for training. Rather little public subsidy appears to be available for adult vocational training (as opposed to continuous school-type education). Labour offices finance some training for the unemployed, but it seems that almost as many of the unemployed finance their own training as employed people (OECD, 2005a). Since 2004, companies that set up training funds and establish training plans have been entitled to receive public subsidies in respect of employee training. The available subsidy is greater for tertiary-type than for secondary-level training, an incentive that probably reinforces the bias in favour of the more highly educated noted above. Prior to the introduction of the training fund approach in 2004, companies spent rather little money on training – equivalent to about 0.8% of their labour costs, compared with an average of about 2% in the European Union (OECD, 2005a). The impact of the training fund initiative on spending is not yet known.

Clear information on the kinds of training that are being offered is available only for that small proportion that is directed through labour offices, mostly for the unemployed. The more popular subjects include: training for sales and trade, computer operation, driver training, accounting and financial services, and administrative support. The popularity of training in the operation of machinery and equipment is continuously growing. Over the last three to four years, the most successful courses in terms of getting jobs for those completing them were on operation of machines and equipment and courses for professional driving licenses; after such courses more than 40% of trainees found jobs. Overall success rates were around 30%. Least effective was training in computer operation, accounting, administrative support and sales – two of which were the most popular subjects. This may mean that some progress on matching training to labour market requirements is necessary, or it may reflect the poor standard of training in areas, such as computer operation, that one might expect to be important. There may also be a link with existing levels of education – computer training for an adult with limited formal education may not be very productive without some reinforcement of other skills.

Polish governments have recognised that adult training is important and have increased the importance attached to it. European Social Fund project resources have played a part in this and it is one of the remits of the new Ministry for Regional Development.[14] However, ensuring that any additional finance is spent effectively will be difficult, since there is little information on the effectiveness of existing training and experience in other countries. Eurostat (2002) points out, however, that one problem in Poland is the lack of co-ordination between different ministries, and that decentralisation of the operation of labour offices has not helped either. Some studies are becoming available that indicate which kinds of training are effective, however (such as Liwiński (2005) and the data from labour offices just discussed), and it is important to encourage such studies, combining them with information on the cost of training to target the most cost-efficient options. Where the older unskilled are concerned, it is important to establish whether cost-efficiency considerations could justify increasing the rather low share of training and educational resources devoted to them at the moment, since it would be unfortunate if an implicit choice to leave them

14. OECD (2005a) notes that one employers association recommends to its members that they conduct training on "how to apply for EU funds".

as a kind of lost generation as far as labour market outcomes are concerned was made on the basis of a mistaken assessment. In the meantime, it might be sensible to devote resources both to increasing the availability of training for them and to encourage them to see it as worthwhile. This should attempt to target not only the unemployed but also those at risk of becoming unemployed as industrial restructuring proceeds (see also OECD, 2006).

Box 4. **Recommendations on education and training**

Governance

- Give school principals appropriate incentives and autonomy to implement measures to improve standards, and clearly distinguish the respective responsibilities of individual schools and local government. In the longer run, restrict the *Kuratoria's* normal role to providing quality assessment information to schools and local and central government, with no executive or veto powers.
- Do not allow employment security aspects of the Teachers Charter to obstruct the restructuring required in response to demographic changes. Introduce additional headings under which teachers' salaries can be supplemented to include teaching performance and subjects where there is a shortage of teachers.
- Ensure that career structures in tertiary education are based on open competition and transparent promotion criteria.
- Develop closer coordination between labour market and education policy, both at central and local levels.

Quality control

- Improve the collection of data on educational outcomes over and above those captured by PISA. Stimulate research on the links between these outcomes and educational and other policies. New policies or pilot schemes should be subject to careful results-based evaluation. Ensure that measures of "value added" in secondary schools, derived from the new system of standard national testing, are available to the schools and education authorities; give consideration to their eventual publication.
- Ensure that quality control of primary and secondary education by the *Kuratoria* takes into account the teaching practices as well as more mechanical checks on qualification and equipment levels, etc. Make teacher promotions conditional on more than meeting formal conditions, but also on practical outcomes.
- Reinforce quality assessment of higher education institutions (HEIs) through the State Accreditation Commission. Publicise widely the on-line availability of its assessments and keep the reports up to date. Encourage the development and dissemination of labour market information relevant for students' choice of courses.
- Ensure that labour offices' choices of providers for adult training courses are based on available performance information, including feedback from previous users. Ensure that labour offices evaluate the effectiveness of training programmes they have supplied or organised.

Financing education

- Ensure that the "algorithm" used for allocating central government finance for education covers appropriate measures of needs and avoids measuring needs by current levels of provision – which can result in poor incentives and inequitable outcomes. In particular, the algorithm should include needs for pre-school education which should be financed through the central government education allocation.
- Make finance available for expansion of pre-primary education from resources freed by falling numbers of children in primary and secondary education.
- Consider allowing public HEIs to introduce cost-related tuition fees for all students. In parallel, part of the subsidy to higher education could be delivered through expanding the means-tested grants system.
- Reform the system of student loans to allow repayment along with income tax once graduates are employed and their income exceeds an appropriate threshold; abolish the requirement for a bank guarantee for students from low income families, replacing it by a state guarantee for all eligible loans.

Provision of education and training

- Expand provision of free pre-school education at ages 3 to 5, focusing particularly on poor and rural areas. This could be accompanied by awareness campaigns that explain the long-term gains from pre-school education to parents who may see little benefit from it.
- Use analysis of both educational and labour market outcomes to help determine the balance of provision between general and vocational education. In the light of this, and where necessary, upgrade the quality of equipment and teaching in upper secondary vocational education.
- Focus public provision of adult education on improving labour market outcomes, not on increasing the level of general education among adults, except where this is relevant for the labour market.
- Use evaluation and analysis of the labour market outcomes of pilot projects to identify cost-effective methods of targeting increased take-up of training by older, less qualified adults to improve their skills and ability to switch to new jobs or sectors.

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