chapter 2

LIFELONG LEARNING FOR ALL: TAKING STOCK

SUMMARY

It is difficult to evaluate the implementation of lifelong learning because strategies vary across countries and measuring implementation is complex. This chapter takes stock by constructing indicators on the basis of the best available international data.

Indicators examine how the *foundations of learning* are being strengthened, in terms of: access to education in early childhood; the proportion of persons in successive generations that completes upper secondary education, where there is a marked trend towards near-universal completion; the quality of upper-secondary education as gauged by the literacy levels of recent completers; and the proportion of persons in successive generations that completes tertiary education, where differences remain in spite of rapid growth.

Further indicators look at *learning opportunities for adults*, in terms of: the proportion of students who are adults, where few countries have more than a tiny percentage; the amount of education and training that adults undertake; and the literacy levels achieved by older adults with a given level of initial education.

Two indicators take stock of the *affordability of lifelong learning*, in terms of: trends in per-student costs and enrolments; and the growth in public and private spending on learning activities. On both measures, the picture is mixed by education level and across countries.

Overall, few countries do well on the majority of measures; most have mixed performance. The few countries spending the most on learning appear to do the best; for others, there is no apparent relationship between public spending and lifelong learning.

1. INTRODUCTION

This chapter takes stock of where countries stand with respect to the goals of lifelong learning.

The mandate to make lifelong learning a reality for all was inspired by the need to ensure that all individuals have the knowledge, skills and competencies to participate fully in a knowledge-based society. Chapter 1 shows that the mandate implies for many countries a fairly radical transformation of existing formal and informal settings in which learning occurs if they are serve as a tool for inclusion rather than selection and to put the individual at the centre of the learning process.

That being the case, it is important to monitor the *implementation* of lifelong learning across Member countries. This immediately raises the question of which criteria should be used to monitor implementation. Presently, few countries specify objectives against which it would be possible to evaluate progress. This chapter seeks to fill the void by monitoring developments in Member Countries with respect to two broad objectives in the mandate: *a*) strengthening foundation and continuing learning and b) increasing the affordability of lifelong learning. It does this on the basis of a number of indicators that are calculated using the best available international comparable data, and that cover the main sectors in which lifelong learning occurs: early childhood education and care, schools, tertiary education institutions, the workplace and other adult learning settings.

The chapter proceeds as follows. Section 2 sets out the approach used to examine country performance and its limitations. Section 3 presents indicators of country performance on foundation and further learning, followed by a section considering country performance on indicators of financing lifelong learning. Section 5 assesses overall country performance in realising lifelong learning. The final section draws together the main conclusions of this stocktaking exercise and offers suggestions on how to improve the monitoring of lifelong learning.

2. TAKING STOCK OF WHERE COUNTRIES STAND: A SYSTEMIC APPROACH

Stocktaking is not straightforward. Lifelong learning is not defined in terms of discrete objectives for different institutions, its goals overlap with other reforms …

A stocktaking of country performance on lifelong learning is not straightforward. First, as Chapter 1 makes clear, lifelong learning is not defined solely in terms of discrete policies or institutions with specific missions. The lifelong learning mandate superimposes new objectives – extending learning to younger ages and ensuring sound foundations for learning for everyone – on pre-existing education, training, and learning sectors. Moreover, the mandate is being implemented at a time when various sectors are undergoing important transformations – rising participation in early childhood education, increased permeability of the boundaries between post-secondary pathways, and qualitative and quantitative changes in tertiary education. Some of these transformations have preceded or occurred independently of policies whose stated aim is to further lifelong learning.

… it aims for individual learning outcomes, rather than programmatic inputs. To take stock, this chapter relies on internationally comparable data from INES *and* IALS.

Stocktaking is complicated also by the fact that lifelong learning is most clearly defined in terms of learning by individuals rather than by inputs into institutions. While lifelong learning strategies should be evaluated in terms of outcomes for individuals, such evaluations are hindered because many variables are likely to intervene between lifelong learning policies and individual outcomes. Furthermore, on a practical level, internationally

comparable data on learning outcomes are limited and recent. Coverage of the wide range of competencies associated with lifelong learning remains partial, and cross-sectional time-series or longitudinal data do not exist on most dimensions of interest. Mindful of these constraints, this chapter draws on available international education and training indicators from Indicators of National Education Systems (INES) and the International Adult Literacy Survey (IALS) to paint a picture of the present state of lifelong learning in OECD countries.

3. STRENGTHENING FOUNDATION AND FURTHER LEARNING

Lifelong learning starts with young children.

A prerequisite for lifelong learning is a sound foundation in basic educational competencies acquired in the formal education system and opportunities for further learning once persons leave initial education and training. There is ample evidence that, on average, children are more likely to under-perform in compulsory education if they enter school poorly prepared to learn (OECD, 1999*a*, Chapter 2). Students do badly in tertiary-level studies if they lack critical analytical and drafting skills (OECD, 1998*a*). Adults who are unable to read can hardly learn on the job or benefit from further training (OECD and Statistics Canada, 2000) or overcome the risk of social exclusion in a knowledge-based society (U.S. Department of Education and OECD, 1999). Further learning by the adult population is associated with better jobs and working conditions, and with improved enterprise performance (OECD, 1997; OECD, 1999*b*, Chapters 3 and 4).

Better basic learning depends on expanding participation in a range of learning activities as well as raising their quality. Lifelong learning opportunities for adults are more difficult to assess because they cut across formal and non-formal arrangements. Based on available evidence on the quantity and quality of learning, the indicators presented below enable a partial assessment of where countries stand with respect to strong education foundations and overall learning opportunities for adults.

3.1 Early childhood education and care (ECEC)

Countries differ in how they define and meet the needs of young children. Many, though not all countries, are committed to making pre-primary care widely available.

There is no doubt about the importance of the early childhood period in the cognitive, behavioural, and social development of children, and in developing a sound foundation for lifelong learning. Disadvantages at this stage of life can hinder later learning. But what this implies for policy depends on societal views as to the respective roles of society at large and the family. Some countries opt for policies that reinforce the role of the family by making it easier for a working parent to withdraw from the workforce for a period to care for children at home. This alleviates the need for extra capacity in institutional settings for early childhood education and care. Other countries emphasise creating ECEC programmes for children whose parents work. Policies in other countries are neutral with respect to incentives to favour early childhood development and care in the home or in institutional settings. In order to make an assessment of progress on this front, it would be helpful to know the proportion of young children who are at home with a parent, or are participating in an organised care and development programme; it would be even better to complement this with data on participation rates of children

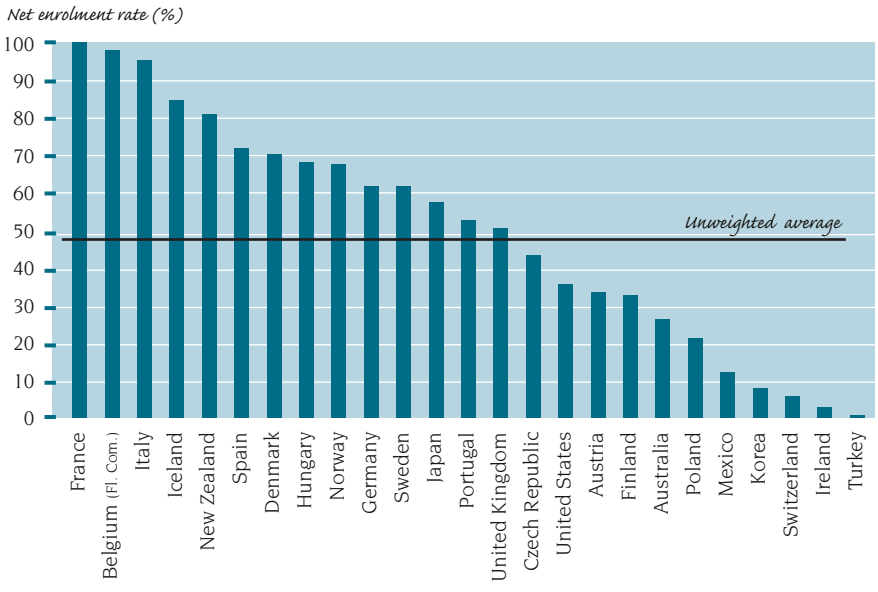
from disadvantaged families or families in which parents work. It would be helpful to know how much governments allocate for young children, either in the form of support for opportunities in various institutional settings, or in the form of transfers to families who keep their children at home until the beginning of compulsory education. Ideally, we would want to complement data on participation rates with some information on the quality of the experience of children, whether at home or in an institutional setting. But this raises the thorny question of how to define quality and how to assess what is happening with young children at home as well as in a variety of institutional settings.

The percentage of 3-year olds enrolled in such activities is one indicator of where countries stand.

A more limited and pragmatic approach is to review the existing range of international indicators on ECEC and to interpret such data with due regard to other considerations such as evidence on whether parents are likely to be able to assume full-time child-care responsibilities themselves. One such indicator is the proportion of three-year olds served in pre-primary education programmes. Figure 2.1 shows a very dispersed pattern across OECD countries with respect to provision of learning opportunities for three-year olds in 1998, ranging from over 90% in France, Belgium (Flemish Community) and Italy to less than 5% in Ireland and Turkey. The OECD thematic review on early childhood education and care suggests that there are limitations to this particular indicator. For

In some countries, nearly all 3-year-olds participate in pre-primary education; in others, less than half do so.

Figure 2.1 Participation in pre-primary education[1] for children aged 3, 1998



1. The data refer to participation in organised centre based instruction programmes primarily covering children aged 3 to compulsory school age. Programmes organised as day care, play groups and home-based structured and developmental activities are not included, and participation in programmes organised through health or social welfare ministries or privately are not, in all countries, reported.

Source: OECD (2000*a*), *Education at a Glance*: OECD *Indicators*.

Data for Figure 2.1, page XX.

example, in Australia and some other countries there are significant options for care that are organised outside the context of those institutional providers whose enrolments are captured in the statistics. Countries which have opted to emphasise ECEC activities within the family do not show high participation rates on this measure. Despite these limitations, much of the variation seen in Figure 2.1 reflects real differences in policies and priorities. For example, the differences in participation rates are partly a reflection of the evident policy choices regarding the allocation of financial resources. Those enrolling more than a half of all three-year-olds in organised centre-based programmes typically spend more than 0.5% of GDP on pre-primary education *e.g.* France spends 0.7% and Denmark spends 1.1%.

What does this evidence about pre-primary education imply for the state of lifelong learning? First, probably more than in any other area of learning, it is difficult to discern a norm or "best practice". The variance across countries in participation rates and overall spending appears to reflect a high degree of differentiation in policies. The OECD's thematic review of early childhood education and care has found considerable variation across countries with respect to the age of eligibility for publicly-provided programmes, and the extent to which they are targeted or universal. Countries also differ with respect to the degree that such services are centrally administered and regulated, and the extent to which ancillary policies, such as provisions for parental leave, are related to ECEC policies (OECD, 1999*a*, Chapter 2). In Europe, countries differ in the nature of the institutions that provide ECEC. Nearly all except the Nordic countries rely on nurseries/day-care/play groups for children up to age 3; the Nordics rely on non-school education-oriented programmes; Spain has school-based programmes that begin at less than 6 months. Arrangements become less diverse within countries and across countries starting at the age of three, the age at which participation in some countries rises markedly. Three-fourths of all EU countries rely entirely or partly on schools; half rely on mixtures of two or more forms of provision (European Commission, 2000, pp. 43-63).

In sum, it appears that ECEC is one of the biggest unfinished items on the agenda for implementing lifelong learning. Estimates suggest that, for most countries for which data are available, capacity would need to increase substantially on its 1995 base (*e.g.* by more than 20%), if participation rates of all children below the age of 6 are to reach by 2005 the levels found in the countries with the highest participation rates. Switzerland, Finland, and Turkey, for example, would need to increase capacity by 100% or more to achieve these levels (OECD, 1999*a*, Chapter 1, Figure 1.2).

3.2 Upper secondary education and training

Completion of upper secondary education or apprenticeship is a minimum condition for a foundation for lifelong learning.

Perhaps the most important element of a sound foundation for lifelong learning is ensuring that young persons leave the formal education system with at least the minimum qualifications required for employability and access to further training. Recent OECD research suggests that, on average, completion of upper secondary education or acquiring a recognised apprenticeship certificate marks the minimum threshold for successful entry into the labour market and continuing employability (OECD, 1998*b*; OECD, 2000*a*; OECD and Statistics Canada, 2000).

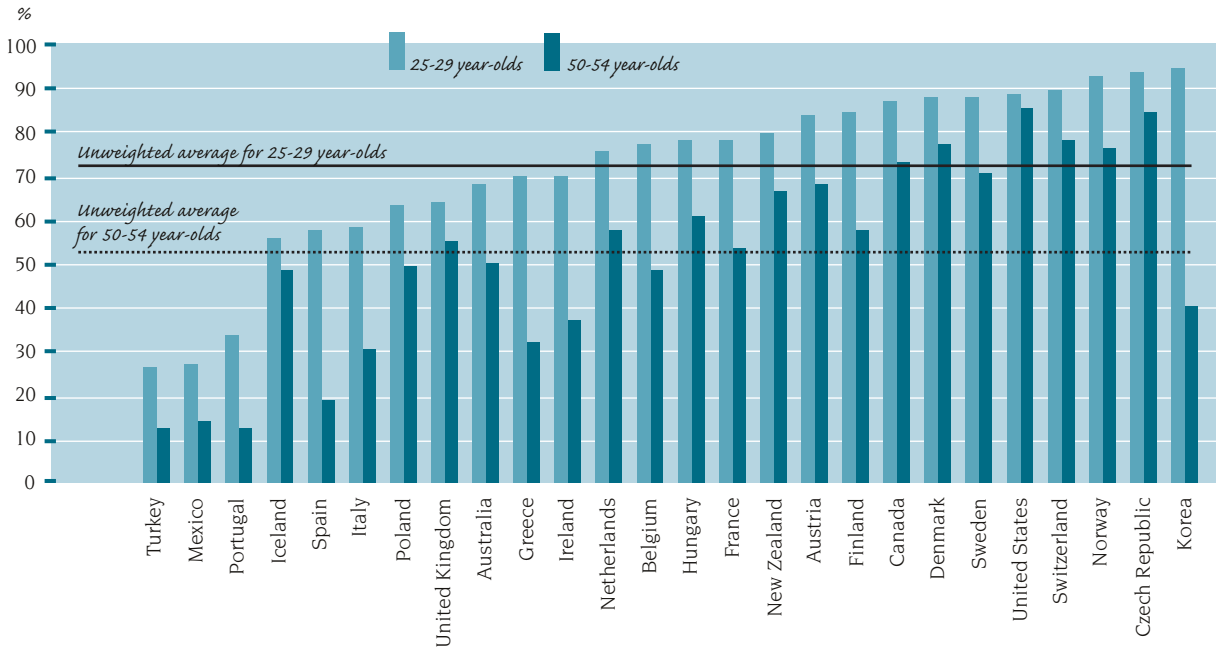
The good news on this front is that Member countries are now converging on high – even near-universal – completion of upper secondary education. Figure 2.2 shows that in nearly two-thirds of Member countries, 70% or more of 25 to 29 year-olds in 1998 had completed upper secondary education. In the Czech Republic, Norway and Korea, more than 90% of this age group has completed upper secondary education.

Nearly all countries have achieved this for a large majority of young persons.

There has been broad progress over the past 25 years in raising upper secondary education completion rates. Figure 2.2 puts current attainment levels in perspective by comparing the attainment levels of 25-29 year olds today, to those of 50-54 year-olds who left school two to three decades ago. Some of the most dramatic improvements, *e.g.* in Spain and Portugal, have occurred in countries where past levels of educational attainment were very low. Countries such as Australia, France, Korea, and Finland have almost caught up with the countries having the highest upper secondary completion rates.

Figure 2.2 Progress towards achieving a minimum educational attainment level, 1998

Percentages of 25-29 year-olds and 50-54 year-olds who have completed upper secondary education



Young adults are more likely than older adults to have completed upper secondary education; the improvement has been greatest in countries where older adults have the least education.

Countries are ranked in ascending order, by attainment level of 25-29 year-olds.

Source: OECD Labour Force Survey Database (2000).

Data for Figure 2.2, page xx.

But the quality of secondary education is variable across countries.

As noted above, strategies for lifelong learning also need to be evaluated in terms of the *quality* of learning outcomes. In this regard, some countries face substantial challenges not simply to raise or sustain participation rates, but also to improve the quality of outcomes. The OECD thematic review on the transition from initial education to working life suggests a number of additional indicators that might be used to evaluate how well countries are addressing the quality issue. One proxy measure for this is mean literacy scores, as measured by the International Adult Literacy Survey (IALS).[1] of young persons who have completed upper secondary education. Another proxy measure of quality is the "under-achievement rate", the proportion of upper secondary education completers whose performance on literacy tasks is below the minimum level of competence needed, as judged by experts, to cope adequately with the complex demands of everyday life (below level 3) (OECD, 1997). Figure 2.3 presents data on these two proxy measures of quality. The mean literacy level for upper secondary completers aged 16-25 is represented by the vertical bars;

Figure 2.3 Literacy scores[1] and underachievement rates[2] of population aged 16-25 with upper secondary education, 1994-98

1. Document scale, with range of 0-500 points.
2. Percentage performing below literacy level 3 (275 or below) on document scale.

Countries are ranked in descending order by mean literacy score.

Source: International Adult Literacy Survey Database; OECD and Statistics Canada (2000), *Literacy in the Information Age*.

Data for Figure 2.3, page XX.

Even people who complete secondary education have very different literacy levels, on average, across countries. Between 10% and nearly 40% perform at the bottom two levels.

1. Literacy levels of individuals were assessed in 18 countries, between 1994 and 1998 using the International Adult Literacy Survey (IALS). Survey participants provided information on educational attainment, other background characteristics, and employment and training experience. For more information on the definitions and measurement of literacy, and the results of the survey, see OECD (1997) and OECD/Statistics Canada (2000).

values are read off the left-hand axis. The underachievement rate for each country, is indicated by a circle; its value is read off the right-hand axis. The data show that there is considerable variation across countries with respect to mean literacy scores of upper secondary completers, with mean scores in Finland and Denmark just below literacy level 4 (326-375), and mean scores in Poland and the United States at the top of literacy level 2 (226-275). There is substantially more variation with respect to "under-achievement" rates. In Finland, less than 10% of persons who have completed upper secondary education fail to reach literacy at level 3 (threshold score of 276), while in the United States, nearly 59% do. Mean literacy scores of 16-25 year old completers are loosely correlated with completion rates (see Figure 2.2). There are some notable exceptions, though. The United States with one of the highest upper secondary completion rates, has the second lowest mean literacy score; that together with a high "under-achievement" rate suggests that there may be a problem with education quality. In contrast, Portugal, with one the lowest completion rates of the countries considered, has a mean literacy score that is only slightly below the mean for all countries.

3.3 Tertiary education

Opportunities for tertiary education need to be widely available.

As completion of upper secondary education has become near-universal, participation in tertiary education has come to be viewed as an important prerequisite for working and further learning throughout adult life. The criteria for evaluating and comparing country performance in this area are not as clear-cut as they are in the case of upper secondary education because it is difficult to identify appropriate benchmarks for participation rates and programmes of study.

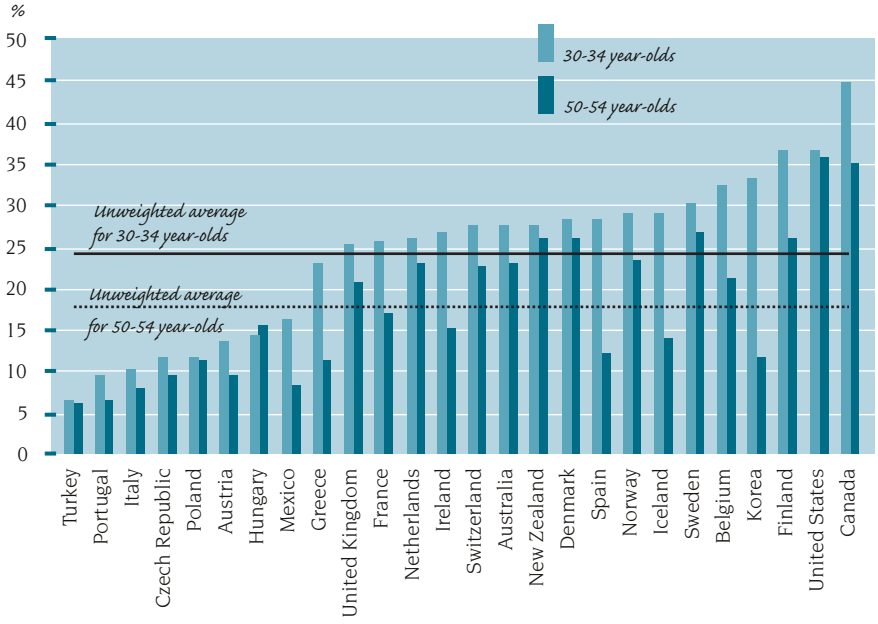
Overall, Canada, Japan, and the United States have the highest proportion of persons with tertiary qualifications …

The most obvious variable to monitor in taking stock of this dimension of lifelong learning is the proportion of the population with tertiary qualifications. Such measures show marked differences across countries ranging from 15% or less of adults aged 25-64 in countries, such as Austria, the Czech Republic, Hungary, Italy, and Portugal, to more than 30% in Canada, Japan, and the United States (OECD, 2000*a*, p. 33). However, as countries have pursued policies in the 1980s and 1990s to expand participation in tertiary education, it is more telling to examine recent trends in participation and the relative emphasis on academic versus more applied and technical streams of study in tertiary education.

… but most countries are catching up …

One way to do this is to compare the proportion of 30-34 year-olds with tertiary qualifications with the proportion of 50-54 year-olds with similar qualifications. Attainment of tertiary qualifications has increased in those countries where the attainment rate of the younger group exceeds that of the older group. Such data are presented in Figures 2.4, where countries are ranked in ascending order of attainment rates of the younger group. There is a large spread across countries in terms of how quickly lagging countries are catching up with the leaders. In Greece, Iceland, Korea and Spain, 30-34 year-olds are more than twice as likely as 50-54 year olds to have acquired tertiary qualifications. Of these countries, all but Greece have had increases large enough to raise attainment of the younger group above

Figure 2.4 Progress towards increasing tertiary qualifications, 1998



Countries are ranked in ascending order, by attainment level of 30-34 year-olds.

Source: OECD Labour Force Survey Database (2000).

Data for Figure 2.4, page XX.

Of the countries where the proportion of older persons with tertiary qualifications is below average, France, Iceland, Ireland, Korea, and Spain have raised participation rates of younger persons to above average for their age group.

the OECD average. However, most countries with available data, the proportions of 30-34 year olds with tertiary qualifications lag the proportions found in leading countries and show either little evidence of catching up or, in a few cases, a widening gap.

... with many expanding capacity in advanced technical and vocational studies.

For many countries, the higher attainment rates have occurred because of the expansion of tertiary education outside of university-based studies. In Austria, the Czech Republic, Denmark, and Finland – all countries with relatively low proportions of university graduates and little sign of change – alternatives to university studies are developing rapidly. Austria and Switzerland have introduced the *Fachhochschulen* and Finland established the AMK with the aim to attract young persons who otherwise would have followed university studies as their only viable option. The Finnish AMKs, from a very small base in the early 1990s, are expected to eventually account for more than two-thirds of all tertiary-level enrolment.

It seems safe to conclude that participation of young persons in tertiary education remains a long way from being universal. The consequences of less-than-universal participation at this level are more difficult to judge, depending in part on efficiency considerations, on each country's relative position, on whether adults can find their way into tertiary education and on whether "unmet demands" can be met outside the formal tertiary sector after individuals begin their careers.

3.4 Continuing education and training

A key objective of lifelong learning is to facilitate upgrading of the skills and competencies of poorly qualified adults, and updating of the knowledge and know-how of adults more generally.

Perhaps the single most important idea behind the concept of lifelong learning is that adults should continually update and, if necessary, upgrade their knowledge, skills, and competencies. The argument for this has rested on evidence that "once-and-for-all" initial education and training is less and less adequate as a basis for continued employability. Many adults are handicapped by the low levels of initial qualifications that they acquired when they left the formal education system. Others were adequately qualified when they left school, but have seen the occupations for which they prepared being transformed or disappearing altogether. There is solid evidence that, on average, better-educated adults earn more and are less likely to be unemployed. In this regard, completion of upper secondary appears to be particularly important.[2] It is claimed that the pace and skill-bias of technological change make it increasingly important for adults to learn, whether by returning to formal education and training, participating in structured further education and training, or undertaking non-formal learning through on-the-job training, peer-coaching, or self-directed learning (Ernst & Young Center for Business Innovation and OECD, 1997; OECD and Statistics Canada, 2000; OECD, 2000*c*). It is argued as well that, in the "knowledge society", continual learning is needed to permit adults to stay active outside working life (OECD, 1996; OECD, 1997). How well equipped are OECD countries to address such needs? The discussion below approaches this question from two perspectives, one looks at institutional arrangements, the other at participation levels.

Institutional arrangements

But institutional arrangements are lacking, or ad hoc in nature, and data for evaluating them, particularly for learning in non-formal settings are hard to come by.

Despite the widely held view that continuing education and training are important, there are only limited public institutional arrangements whose objective is to provide continuing education and training: adult education and labour market training programmes. Adult education typically comprises a small slice of total education provision under the auspices of ministries of education. On the education side, some of it takes the form of dedicated activities that aim to offer remedial education for adults with limited basic skills as well as other courses, vocational and non-vocational in nature, usually up through the equivalent of the secondary level. Some is in the form of incidental adult enrolment in initial formal education. Labour market training is provided through labour market authorities, usually to fill skill gaps for the unemployed or at-risk individuals. Moreover, proprietary/for-profit education and training providers typically provide courses that aim to raise competencies in relatively narrowly defined areas, such as foreign languages, computer and software skills, and certain business skills.

Taking stock of institutional arrangements for adult education and training is difficult. Internationally comparable data exist on spending on and enrolment in labour market training programmes. But enrolment data are incomplete, and expenditure data for adult education and job-related training are limited. There are no enrolment or expenditure data on learning provided by

2. Evidence on this relationship has been presented in a wide range of OECD work including OECD (1994); OECD (1996); OECD (1997). For recent data on earnings and unemployment by educational attainment level, see OECD (2000*a*, pp. 270, 297-298).

proprietary/for-profit institutions, though some of that may be counted in enrolments in job-related training. These gaps in data make it difficult to evaluate the relative size of these different "sub-sectors", to say nothing of the extent to which they complement or substitute for each other.

What can be said about labour market training from a lifelong learning perspective? OECD countries spend on average about 0.2% of GDP on training mostly for unemployed adults and those at risk (OECD, 2000*d*, pp. 223-230, and Table 2.A in the Statistical Annex). The learning objectives are subordinate to the goal of placement in employment, and expenditures tend to be counter-cyclical (*ibid.*). Training for the unemployed typically is of short duration; enrolment sometimes is linked to eligibility for receipt of unemployment benefits (*op. cit.*, Chapter 4). In most countries, the place of such programmes in systemic approaches to lifelong learning is often weak and unintended.

With a few exceptions, such as Portugal, countries do not appear to use active labour market policy as part of lifelong learning strategies.

However, in a number of OECD countries, labour market training programmes serve substantially more than the unemployed: in a third of the countries for which data are available, employed workers constitute nearly half of all the persons enrolled. In Belgium, Denmark, Portugal and Ireland, enrolments are sufficiently high to constitute an appreciable share of total enrolments in all adult education and training. In Portugal, for example, the number of employees newly-enrolled in labour market training programmes in 1998 equalled 9.3% of the total labour force. In that same year, an estimated 14% of adults participated in continuing education and training.[3] While this suggests considerable potential for the role of labour market training as a component of lifelong learning, there is as yet little basis to judge how well such programmes are integrated into a full range of learning options over adult life.

Though formal education systems do not appear "adult-friendly" in most countries, in Australia, New Zealand, Sweden, and the United Kingdom persons 35 years and older comprise 6% or more of enrolments …

To what extent is the formal education system accommodating the learning needs of adults? According to Figure 2.5 (next page), there are appreciable differences between countries. It shows that the share of total enrolments in formal education taken up by individuals 35 years of age and older, is under 4% of total enrolments in two-thirds of the countries for which data are available. This suggests that, for whatever reason, formal education either is not encouraging or is not facilitating participation by prime-age and older adults. But, the pattern is not universal. In Australia, United Kingdom, Sweden, and New Zealand, 35-year-olds comprise 6% or more of total enrolments. Adult enrolments in formal education are concentrated in tertiary institutions. In several countries, tertiary education institutions are being urged to extend offerings to adults in degree as well as non-degree programmes. Although less common outside of such countries as Canada, New Zealand, the United Kingdom and the U.S., provision catering to adults now is seen both in terms of response to adult demand and, more pragmatically, as a means to maintain enrolments in the face of declines in the size of youth cohorts and secure revenues. Provision often takes the form of short programmes developed for industry and part-time and distance study options.[4]

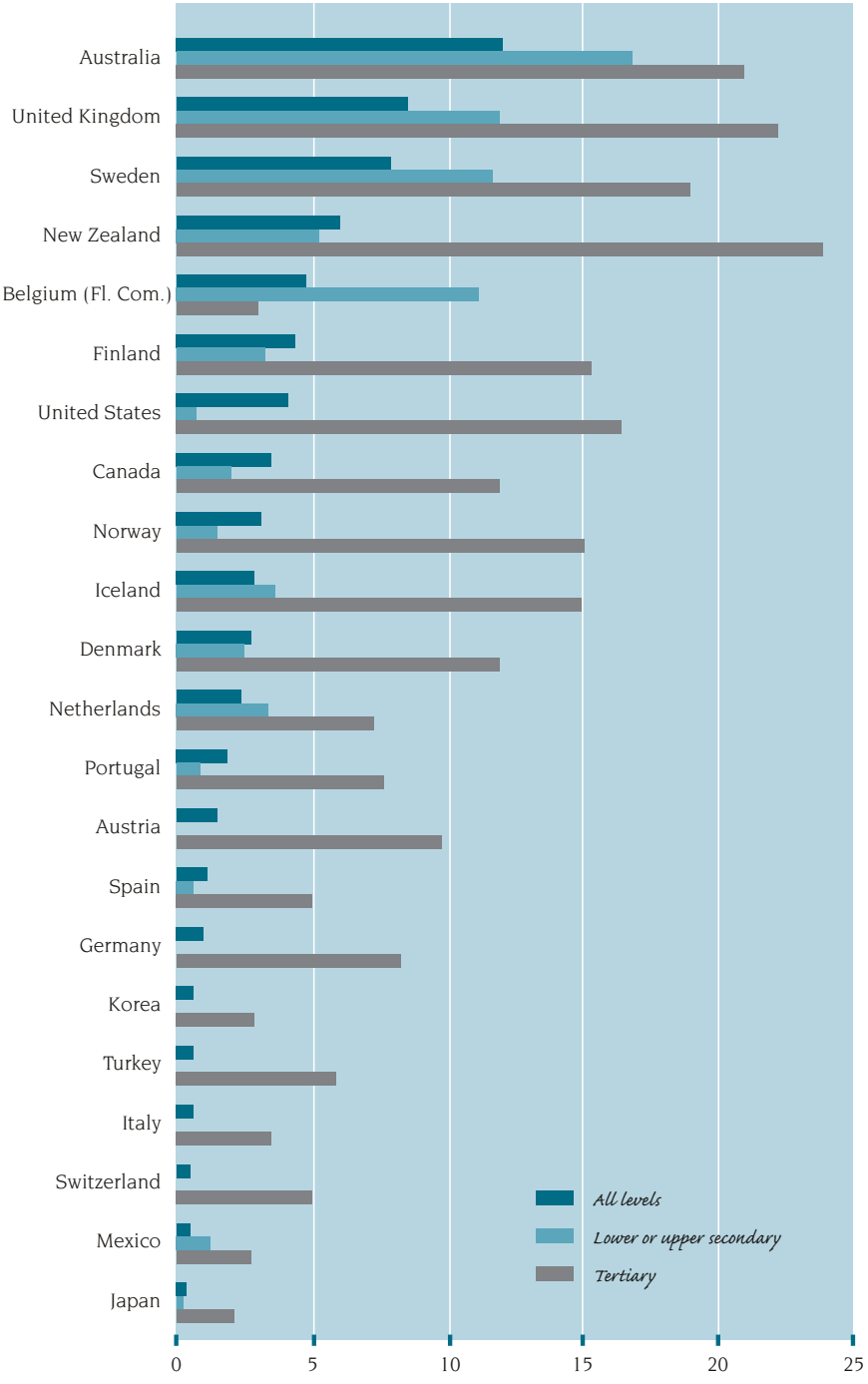
3. Detailed country data are provided in Tables 2.A and 2.B in the Statistical Annex.

4. This issue was addressed in a conference "Beyond the entrepreneurial university? Global challenges and institutional responses", organised by the OECD programme for Institutional Management of Higher Education in Paris on 11-13 September, 2000.

In all but a few countries, the adult share in secondary education is small. However, the adult share in tertiary education is greater, exceeding 10% in a large minority of countries.

Figure 2.5 Adult share in formal education by level, 1998

Percentage of adults aged 35 and over in enrolment



Countries are ranked in descending order, according to adult share of total enrolments.

Source: OECD Education Database.

Data for Figure 2.5, page XX.

Although there is a recognised need for expansion of learning options below the tertiary level for adults with low educational attainment and literacy levels, the institutional responses have been limited. Persons 35 years old and older comprise more than 11% of secondary level enrolments in only four countries: Australia, the Flemish Community of Belgium, Sweden, and the United Kingdom. These patterns are linked in fairly obvious ways to policies and institutional arrangements deliberately geared to improving learning opportunities for adults. For example, in Australia, the technical and further education colleges (TAFE), and in United Kingdom, the further education institutions, endeavour to accommodate the needs of, among others, adults who have not completed secondary education. There are initiatives in other countries that are being put into place to redress the problem of limited opportunities for poorly qualified adults. In Norway, for example, authorities established in August 2000 the right for poorly qualified adults to complete secondary education as part of a larger package of reforms that also gives credit to individuals for non-formal learning. But the provision has not yet been implemented (details of how and where the needed education will be provided and financed are under negotiation), so it is too early to know how many adults will exercise the right to return to formal education.

... in the Flemish Community of Belgium they comprise more than 11% of secondary enrolments.

Participation

A second way of taking stock of continuing education and training is to examine patterns of participation in learning activities, with the aim of quantifying how much individuals participate in learning activities regardless of the institutional setting. Although this approach does not shed light on how well public providers take care of adult learners, for example, it does provide some indication of the overall availability of opportunities for learners. There are a number of possible sources of comparative data on participation in continuing education and training (see OECD, 1999*b*, p. 140.). The International Adult Literacy Survey (IALS) is one of the most complete, with comparable detailed information from surveys of adults administered in 18 OECD countries. The survey collects information on participation in education and training (apart from on-the-job training) for the adult population.

Lifelong learning for adults also can be assessed in terms of participation in continuing education and training, and learning that occurs after completion of formal education.

On an analysis of survey responses, Figure 2.6 (next page) plots participation rates against the annual average number of hours of training received by participants. Participation rates and the average intensity (or duration) of training show little association.

Another way of assessing participation in further learning is to shift the focus from the learning process to outcomes, by considering how much adults learn once they leave the formal education system. In the absence of systems for assessing and recognising learning outcomes acquired during working life, it is necessary to construct proxy measures. Figure 2.7 does this for older adults, 46-65 years old, who completed upper secondary education some two to four decades earlier. It approximates "additional learning" that has occurred since completion of upper secondary education, by showing the proportion of that population who perform at or above the literacy level judged by experts to be above the literacy level that is typically associated with completion of upper secondary education. The larger the proportion that exceed this minimum

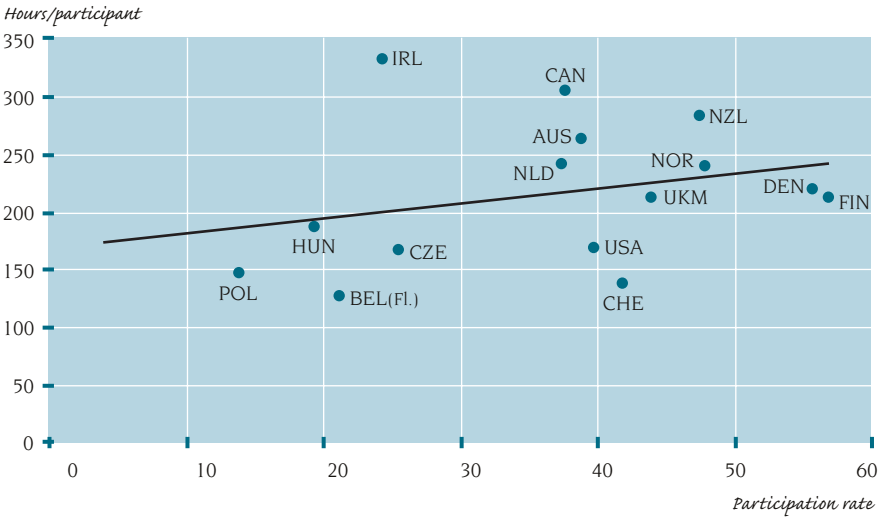
threshold, the greater the likelihood that adults are finding ways to acquire new skills and competencies. There are drawbacks to this approach. One is that the literacy measure captures just a slice of the spectrum of competencies that adults acquire over their working life. Second, it fails to control for differences in literacy levels that might have been observed when these adults first left upper secondary education. Third, this measure does not allow one to identify where and how adults learn. These caveats notwithstanding, this indicator does provide a crude measure of how much the undifferentiated combination of formal institutional arrangements, work-related training, on-the-job learning, and other factors contribute to adult learning.

On this measure, as shown in Figure 2.7, large differences across countries may be observed. In the four countries with the highest values, adults with an upper secondary education are roughly four times as likely to have high literacy scores, as their counterparts in the three lowest ranking countries. The nature of initial education and training systems does not appear to be associated with differences in this proxy measure of learning outside of schooling. High and low-ranking countries include those with strong vocational tracks and those with a more general orientation in secondary education. On the other hand, differences in informal learning appear to bear some relation to opportunities for continuing education and training. The U.K., Sweden and New Zealand, which perform above average on this indicator, have relatively high rates of participation in continuing education and training. New Zealand and the U.K. also show relatively high levels of average annual hours of training for all adults (Figure 2.6).

The rate of adult participation in continuing education and training is weakly associated with the duration of training.

Figure 2.6 Adult participation in continuing education and training, 1994-98

Participation rates and average hours of training per participant

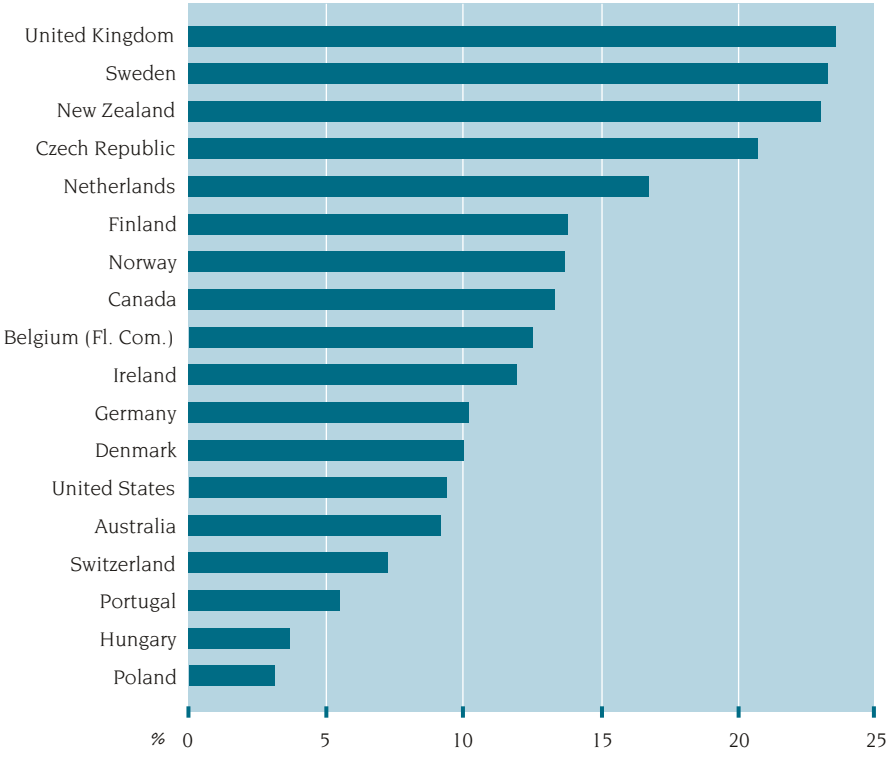


$y = 1.29 + 169.8$, $R^2 = 0.08$

Source: OECD and Statistics Canada (2000), *Literacy in the Information Age*.
Data for Figure 2.6, page XX.

Figure 2.7 Learning by older adults after formal education, 1994-98

Percentage of 46 to 65 year-olds with only upper secondary education performing at literacy level 3 or above (document scale)



Countries are ranked in descending order.

Source: International Adult Literacy Survey Database.

Data for Figure 2.7, page XX.

Countries differ in the proportion of older adults with upper secondary education only who perform above an established literacy threshold. This is a "proxy" measure of additional learning after school leaving.

This section has reviewed evidence on what countries are doing to ensure sound foundations for lifelong learning and opportunities to pursue learning after initial education. Taken together, the set of indicators shows that in most countries the formal education sector is well-aligned with the objectives of lifelong learning in terms of achieving relatively high participation rates, especially in upper secondary education. The picture is much less satisfactory with regard to the new areas that the concept of lifelong learning attempts to embrace, namely learning demands in early childhood and adult life.

4. INCREASING THE AFFORDABILITY OF LIFELONG LEARNING

Implementation of lifelong learning for all poses complex resource challenges because it changes so many parameters at once. It implies potentially vast quantitative and qualitative changes in the content of learning and in where and when it occurs; changes in the costs of provision and total resource requirements; and shifts in financing burdens among various actors. The resource

Lifelong learning poses complex resource challenges because it changes so many parameters at once.

implications are highly dependent on institutional arrangements that range from school-building management, to entry barriers that deter private providers, to the tax treatment of training provided by employers. The resource implications also depend fundamentally on how ambitious a country is in its conception of lifelong learning and how ready public authorities and social partners are to engage in joint action. (OECD, 1999*a*; OECD, 2000*e*).

The affordability of lifelong learning depends on …

However the resource implications are addressed, the underlying challenge is to find ways of making lifelong learning affordable. This depends on three broad strategies (see OECD, 1999*a*, pp. 24-25):

… raising the economic benefits of learning relative to its costs …

– R*aising the economic benefits of learning relative to its costs*. The "affordability" of lifelong learning depends on increasing the cost-effectiveness of learning in the various sectors in which it occurs – "increasing value for money". Insofar as this reduces costs (*e.g.* by making better use of facilities) and/or raises benefits (*e.g.* by improving the quality of learning outcomes), it raises internal rates of return to learning outcomes, thereby strengthening the economic incentives to invest in lifelong learning. This is essential for attracting net new resources for lifelong learning.

… allocating additional public resources in support of lifelong learning …

– A*llocating additional public resources in support of lifelong learning* . There may be an economic and social case for increasing the public spending effort on lifelong learning. Such resources may come in the form of net additional public spending or in the form of a reallocation from other areas of public expenditure to lifelong learning activities.

… reducing the cost of private investment in lifelong learning.

– R*educing the cost of private investment in lifelong learning*. A substantial share of the burden for financing lifelong learning is likely to fall on employers and individuals and their families. This is because there appear to be substantial private returns to various forms of lifelong learning, particularly for tertiary education and continuing education and training. Also constraints on public spending and equity considerations make it unlikely that public authorities can pay all the costs. Increasing the private contribution is likely to depend on reducing the private cost of capital for such investment.

The discussion below examines evidence of country actions to carry out these broad strategies. It draws on some internationally comparable data, as well as on information collected under the OECD activity on finding alternative approaches to financing lifelong learning.

4.1 Strengthening incentives to invest in lifelong learning

Incentives to invest depend on lowering the marginal cost associated with increased enrolments.

If lifelong learning is to be affordable to societies, its economic benefits need to outweigh its economic costs enough to ensure that investments will pay for themselves (the cost of capital also plays a role; this is discussed later).[5] One factor that determines the affordability of lifelong learning is the direction

5. Economists approach this idea using "rates of return" to enable them to capture in a single term, economic benefits and costs, and the cost of capital. This approach has the advantage of permitting comparisons of different kinds of investment, using a single measure of economic efficiency. But the approach has methodological weaknesses that arise from the fact that rates of return are difficult to observe; they can only be observed ex- post. The approach being used in this subsection is to "unpack" rates of return into the components that drive economic benefits and costs, and the cost of capital. This is intended to shed light on the dynamic policy question of how to raise rates of return. For more discussion, see OECD (2000*e*); OECD (1998*c*, pp. 360-362); OECD (1998*b*, pp. 53-79); Wolter *et al.* (1999); Wurzburg (1998).

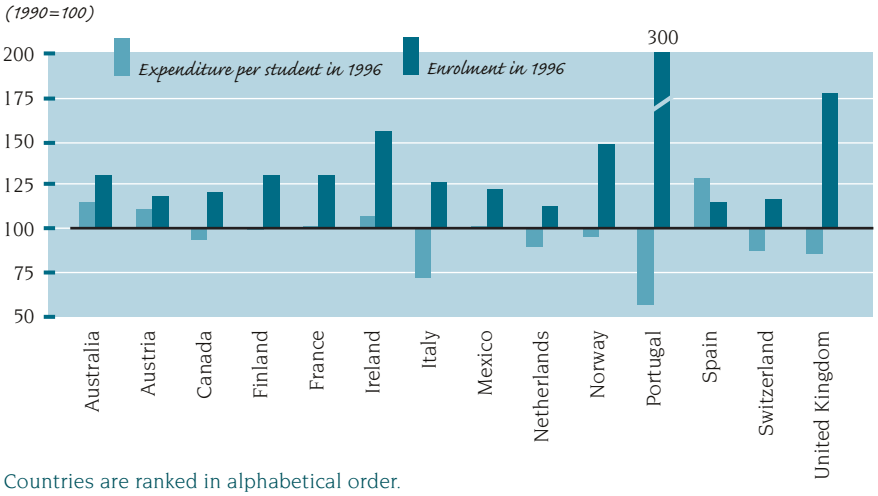
that marginal costs take as the volume of learning activity expands. Will the per-student cost of additional enrolments in tertiary education, for example, go up as more students pursue studies at that level? If learning becomes more expensive as its total volume increases, it will be more difficult to generate substantial expansion of opportunities than if it gets progressively less expensive.

In most countries marginal cost appears to be rising in schools, possibly as a result of measures to improve quality, and falling in tertiary education.

One crude approach to approximating marginal costs[6] is to see how per student costs vary with enrolment rates over time. There are limitations to this approach. First, it relies on budget data instead of costs. Insofar as outlays are a function of factors other than the underlying cost functions, such measures are misleading. However, it might be expected that changes in cost functions would work their way through the budgeting process. Second, the data on costs are highly aggregated, and so mask variations in configurations of classrooms, use of teachers and the use of technology. However, insofar as allocation decisions are made at an aggregate level, such an approach is relevant. Finally, these data are for formal education only; there are no comparable cost data for adult continuing education and training or for work-based learning.

Figure 2.8 shows trends in tertiary education, from 1990 to 1996. Only Australia and Spain experienced a relatively large increase in per student expenditure (exceeding 10%) in the face of moderate to substantial increases in enrolments. Increased enrolments were accommodated, in different measure

Figure 2.8 Trends in expenditure per student and enrolment in tertiary education, 1990-96



Countries are ranked in alphabetical order.

Source: OECD (2000), *Education at a Glance*: OECD *Indicators*, Paris.

Data for Figure 2.8, page XX.

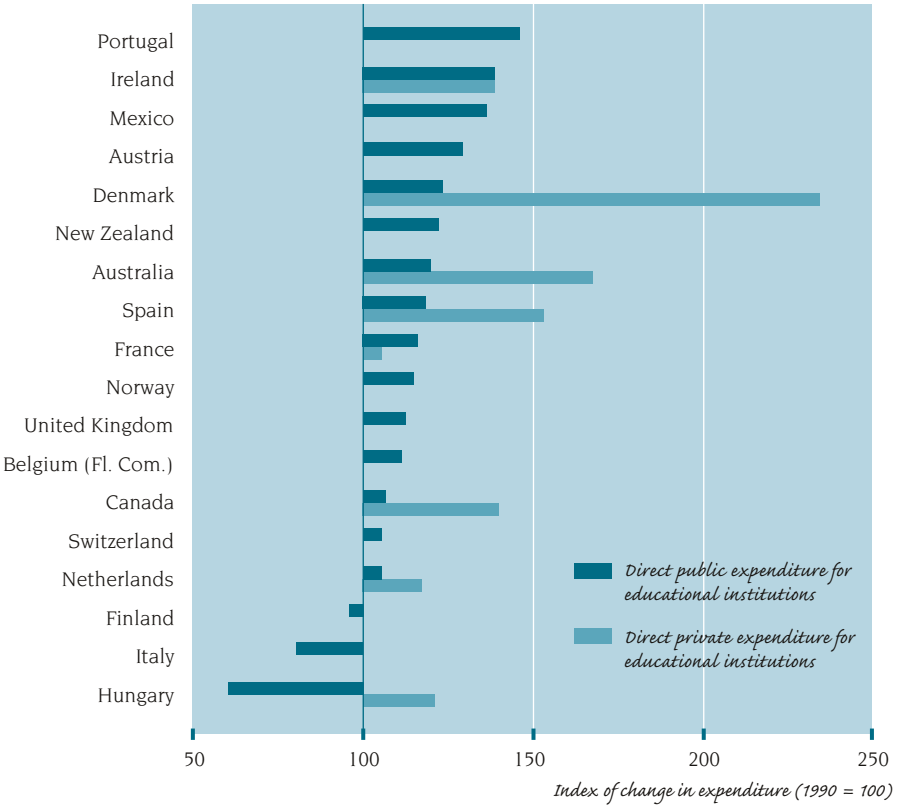
Tertiary enrolments increased everywhere between 1990 and 1996; in over two-thirds of the countries, these increases were associated with per-student costs that either remained steady or declined.

6. It is virtually impossible to evaluate the marginal costs of expanded enrolment in formal education. Available data are aggregated at too high a level to capture costs at the level of the institution and to permit analysis of how costs vary with respect to increases in volume, and with respect to changes in the learning needs of the extra students who are served. It is even more difficult with respect to various forms of adult learning because the settings are too heterogeneous, and much of the cost is too complex to capture either in administrative or survey sources.

in different countries, through flexible, less expensive arrangements (part-time and distance study options), channelling expansion into sub-sectors tertiary education with lower average per student costs, as well as through more intensive use of resources in conventional study programmes. By way of comparison, unit costs for primary and secondary education increased in real terms in the face of relatively stable or declining rolls in most countries for which trend data are available.[7] Countries that experienced the most substantial increases in per student expenditure (near or exceeding 15%) show different profiles. One group is comprised of countries where enrolment, in fact, has trended up (Australia and Austria). Another group is comprised of countries where modest declines in the number of students also coincide with measures to boost participation rates from a smaller school-age cohort and/or to raise the quality of education (Mexico, Norway, Portugal and Spain). Increases in expenditure per student when rolls are falling also may partly arise from difficulties in reducing committed spending on teachers and buildings in proportion to enrolment declines.

For Figures 2.9a and 2.9b:
Education spending is increasing in most countries, particularly at the tertiary level. Growth in private spending, from small levels in some countries, has helped to finance expansion.

Figure 2.9a Trends in public and private expenditure on all levels of education, 1990-96



Countries are ranked in descending order according to change in public expenditure.

Source: OECD (2000*a*), *Education at a Glance:* OECD *Indicators*.

7. Detailed country data are provided in data for Figure 2.8 in the Statistical Annex.

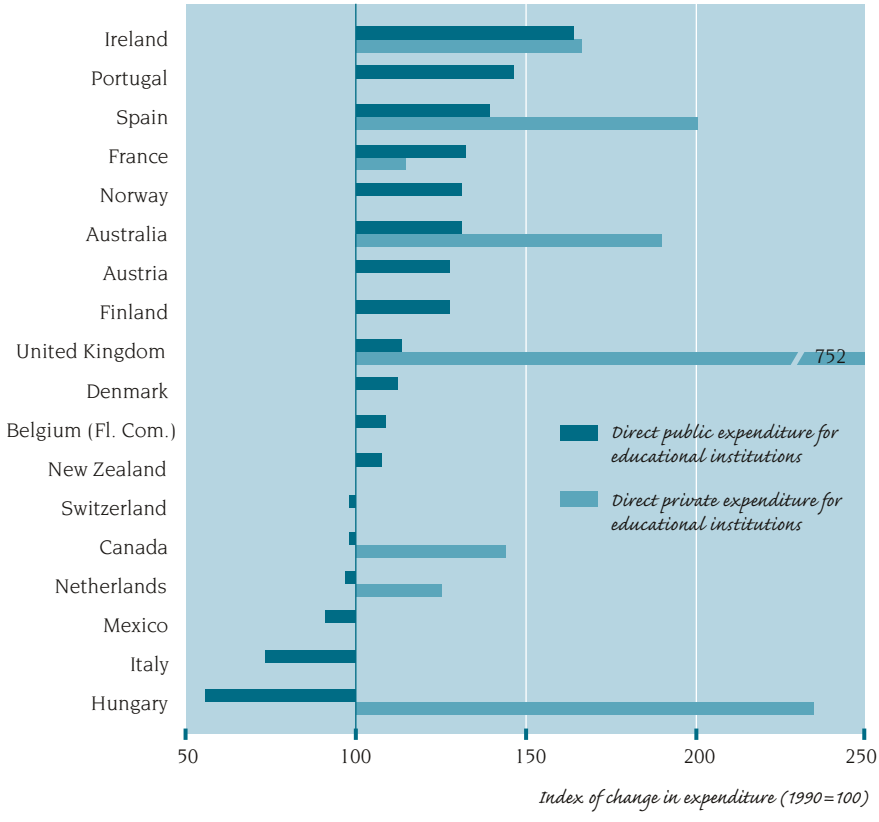
4.2 Allocating more resources for lifelong learning

In most countries, the public resources for learning is increasing in real terms.

Earlier analyses by the Secretariat indicate that considerable financial resources would be required in most Member countries to implement the goal of lifelong learning for all. This is true even when the scenarios are restricted to ones of increased participation in formal education only (OECD, 1999*a*, Chapter 1; also see OECD, 1996, Chapter 8 and OECD, 2000*e*). Cost-cutting measures and measures to increase cost-effectiveness are intended to provide some room for manoeuvre in obtaining and extending the use of such resources. In some countries, demographic developments are expected to allow cost savings in line with falling enrolments. However, without reliable data on unit costs and particularly marginal costs, it is impossible to say whether the net new requirements can be met through either efficiency gains or savings from smaller student numbers.

Public expenditure on education is a standard indicator of the availability of public resources for lifelong learning. Figure 2.9*a* shows that between 1990 and 1996 public expenditure for educational institutions grew substantially (near or exceeding 30%) in Austria, Ireland, Mexico and Portugal. To different

Figure 2.9b Trends in public and private expenditure on tertiary education, 1990-96



Countries are ranked in descending order according to change in public expenditure.

Source: OECD (2000*a*), *Education at a Glance*: OECD *Indicators*.

Data for Figures 2.9a and 2.9b, page XX.

degrees in these countries, the growth in public spending has accompanied school reforms aimed at boosting participation and/or increasing quality. Public spending declined in real terms in Finland, Hungary and Italy. In Hungary, fiscal consolidation in the early 1990s drove school spending down. At the level of tertiary education (see Figure 2.9*b*) Australia, France, Ireland, Norway and Spain increased public expenditures as part of the means to finance increased enrolment (see Figure 2.8).

The allocation of public resources can be neutral with regard to its effects on incentives for efficiency or quality, such as those discussed in the preceding sub-section. Though targeted programmes such as labour market training for the unemployed aim to serve equity objectives, they can have the effect of favouring or excluding the *most* disadvantaged. In order to judge the impact of public spending on efficiency, quality and equity objectives advanced in the lifelong learning approach, it would be helpful consider *how* and *to whom* such resources are allocated. This could usefully complement the treatment of equity issues in Chapter 3. Unfortunately, detailed comparative data that would allow a comprehensive analysis on this issue do not exist. However, the available, limited data and some anecdotal evidence are suggestive.

At the tertiary level there are signs of a shift in public resources away from institutions and towards students.

These considerations come together in the financing of tertiary education. In a number of countries, the trend toward greater institutional autonomy has been accompanied by a growing interest in encouraging and enabling the choices of learners to influence the shape and quality of provision (OECD, 1998*a*). Funding approaches based on student enrolment and on subsidies directly provided to students work in this direction: Under these approaches, tertiary education providers generate revenues partly on their ability to attract and retain students. Such approaches will have the most bite when supply can be brought on line to meet demand (particularly in high-demand fields) and where the public share of expenditures on tertiary educational institutions is high. In six OECD countries, the public share of spending on tertiary educational institutions was 90% or more in 1997. Overall, most public support is provided directly to institutions – 79% on average, ranging from less than 50% in Luxembourg to over 95% in Poland, Portugal, and Switzerland.

There is some indication that countries are shifting the allocation of public expenditures on tertiary education from tertiary education institutions to students. Public funds provided to students in the form of scholarships and student loans are increasing more rapidly than public funds provided to institutions.[8] However, these trends should be interpreted with caution. Because the private share of finance is very low in some countries, even small increases appear to be comparatively large. Also, student loans are subject to different arrangements in different countries, and so are reported differently. The sums refer to gross outlays rather than net spending (gross outlay minus repayment volume) or present-value estimates of the subsidy components of loans originated in a given year. Further, student support may be applied to living costs as well as to meet direct education-related expenses (*e.g.* tuition fees, books and supplies). Notwithstanding these considerations, the relatively more rapid growth in the volume of public spending for students implies a

8. Detailed country data are provided in Table 2.C in the Statistical Annex.

shift in financing strategies to support the choices of learners rather than to finance directly the supply of tertiary opportunities on offer.

Public investment in learning activities also occurs through labour market training programmes. As already noted, data suggest that public spending on such programmes declined, largely because of their strong counter-cyclical nature. Expenditure on adult labour market training declined in 12 of the 18 countries that experienced declines in unemployment in the late 1990s (OECD, 2000*d*).

Funding for active labour market programmes tends to be counter-cyclical.

Though there is no clear pattern with regard to labour market training for employed workers, Finland, Portugal and Spain stand out as interesting examples because labour market training appears to be somewhat more broadly consistent with a lifelong learning strategy. In each country, unemployment declined by nearly a quarter in the late 1990s. Labour market training expenditure for unemployed persons declined proportionately in Finland and Spain. During this period, both countries increased training for employed persons, in absolute terms as well as in the shares of labour market training expenditure. In Portugal, spending on training for employees also increased as part of a general increase in expenditure on labour market training. However, an examination of overall patterns and trends in expenditure data for labour market training for adults seems to show that resource allocation decisions have *not* taken place with lifelong learning strategies in mind. There is probably limited potential value in doing so, given the counter-cyclical nature of such programmes. That said, the patterns observed in Finland, Portugal and Spain suggest that, insofar as policy permits training for employed workers, it is worth investigating further the possibility that such resources might be deployed as part of larger strategies for lifelong learning.

4.3 Reducing the cost of capital for private sector investment in lifelong learning

The cost of capital is an important consideration because individuals and their families are shouldering an increasingly large share of the financial burden for investing in learning.

Decisions to invest in lifelong learning are influenced by numerous factors. The preceding sub-section takes stock of how *public* funds are channelled for investments in lifelong learning. This sub-section considers how *private* financing is being encouraged and channelled.

Though public resources are increasing in tertiary education, the private share is increasing more in most countries.

Education through the secondary level is commonly viewed as a public good, and the public sector bears financial responsibility for it.[9] This is not the case for tertiary-level studies or for continuing education and training for adults. At the tertiary level, private contributions are substantial in some countries (over 50% in Japan, Korea and the United States), and the private share of expenditure on tertiary education institutions is growing almost everywhere. Indeed, the most striking feature of trends over the 1990s displayed in Figure 2.9*b* is the growth in *private* expenditure on tertiary education (though as already mentioned, the increases have been from very low bases in some countries). Except in France and Ireland, private expenditure on education increased more rapidly (if from a smaller base) than public expenditure. The role of private financing differs among groups of countries. Australia, Ireland and Spain are countries where expanding enrolments were

9. This does not preclude private provision of elementary and secondary education, or private finance of some share of such privately provided education.

financed through relatively large increases in both public and private expenditures. Canada, Hungary and the Netherlands are countries where relatively stable or declining (Hungary) public expenditure was accompanied by substantial increases in private expenditure. In the United Kingdom, growth was financed through a moderate increase in public expenditure and a substantial increase in private expenditure. Developments to the end of the 1990s reveal a dynamic, changing picture: Portugal's largely fee-supported private universities and polytechnic institutes account for about one-fourth of overall tertiary education enrolment and so imply substantial private expenditure on learning at this level; the continued growth in revenues generated through deferred payment of contributions in Australia now accompany roughly steady public expenditure; and tuition fees in conventional tertiary education in Hungary and Ireland have been eliminated.

Expansion of financial resources for adult education and training is likely to be from the private side …

In the financing of adult education and training, private sources account for the largest share (90% by Secretariat estimates). For this sector, public policy and framework conditions assume critical roles in generating needed resources through, among other means, reducing the cost of capital.

The affordability of private investment in learning activities depends on the economic benefits relative to the economic costs (for an individual, this might be the increase in wages that come with acquiring a new skill, and the cost of tuition and foregone earnings associated with training, for example). It also depends on the cost of capital, that is the interest charges on the capital sum necessary to finance the investment. Charges incurred on a bank loan used to finance the investment are explicit. The charges may be implicit, taking the form of forgone interest on the amounts withdrawn from a savings account to finance the investment.

It has been argued that lifelong learning investments are handicapped because the cost of capital for such investments is higher than the cost of capital for more traditional forms of investment. For individuals, this is so because loans used to finance the investment have higher interest charges than loans for buying a house or other durables. Insofar as such investments are financed out of savings, they are paid for with after-tax income. For companies, the higher costs take the form of lower market valuation (lower share price) because, unlike other forms of investment, there are no means for reporting or otherwise signalling in a credible manner to the stock market the return from such investments. They also can take the form of higher interest charges on loans to cover such investments, insofar as the capital or expected value of the "assets" acquired – skills and competencies – is not captured in conventional financial accounting and reporting practices[10] (see Ernst & Young and OECD, 1997; Mortensen, 1999[11]; Ministry of Economic Affairs, the Netherlands, 1999; Blair *et al.*, 2000).

10. Experts cite market valuations of companies that have nothing to do with company profitability or other "fundamentals", as evidence that conventional financial accounting and reporting practices fail to capture the most important sources of value creation in the "knowledge economy". See Blair *et al.* (2000); Levitt (1999).

11. For more details on the proceedings of the international on measuring and reporting intellectual capital, see http://www.oecd.org/dsti/sti/industry/indcomp/act/Ams-conf/symposium.htm and http://www.oecd.org/daf/corporate-affairs/disclosure/intangibles.htm).

… but options for reducing the cost of capital still are at an exploratory stage.

The issue of the cost of capital for investment in lifelong learning is a relatively new area for public policy. There are no indicators to assess comparative progress in this area.

Progress towards making lifelong learning an affordable investment has been piecemeal — comparative assessment is not practical.

In taking stock of how lifelong learning is financed, there is evidence of both progress and gaps. On the one hand, expenditures are following trends in participation in some countries; where they are not, somewhat higher unit costs may be a consequence of reforms as well as of fixed arrangements for the deployment of staff or buildings. Moreover, there is considerable evidence of piecemeal strategies that could lead to increases in the volume of resources available to finance expanding participation in lifelong learning and to improvements in cost-effectiveness, rationalised public spending and reduced cost of capital for investment. On the other hand, little progress has been made in placing the financing of learning in each sector within a system-wide approach to the allocation and use of resources for lifelong learning. The assessment of progress in these areas awaits further experience in countries having recently adopted new financing approaches as described in Chapter 1, and the development of new measures to monitor performance in this area.

5. ATTEMPTING A SYSTEMIC ASSESSMENT OF LIFELONG LEARNING

Though it is not possible for a single indicator to capture overall performance …

It is difficult to draw general conclusions about where countries stand in implementing a mandate that is both broad and open-ended because they differ with respect to starting points and relative priorities. Differences in country-specific circumstances and needs imply that countries will want to go in different directions, and therefore pursue different objectives. Moreover, few countries have established objectives against which one could evaluate progress towards the implementation of strategies for lifelong learning (OECD, 2000*e*).

… the preceding indicators do suggest certain general conclusions …

The preceding sections have attempted to address some of these difficulties by drawing on the best available internationally comparable data to calculate indicators that provide some measure of how countries perform with respect to particular elements in a lifelong learning strategy. But we still lack measuring rods against which to judge country progress at a systemic level, across all the relevant dimensions of lifelong learning, *i.e.* indicators against which to judge overall progress in meeting the goal of lifelong learning for all. That being the case, we have to fall back on more qualitative judgements based on the evidence presented in the preceding sections.

… the Nordic countries have good performance across multiple sectors, though each appears to miss at least some of the essential building blocks that comprise systems of lifelong learning …

1. The Nordic countries stand out with *good performance* across *multiple sectors*, though each appears to miss at least some of the essential building blocks that comprise *systems* of lifelong learning. Each has weaknesses, particularly with regard to participation in ECEC, completion of upper secondary education, and/or adult learning. Most have strong results for inputs, such as completion of upper secondary education; all come out well on measures of quality of schooling, completion of tertiary education, and participation in continuing education and training. Performance is uneven with respect to literacy levels among older adults, possibly because popular adult education sometimes is separate from activities that address the learning outcomes measured by IALS. Although it might be argued that cultural homogeneity

makes it easier to achieve such balance, all these countries have substantial foreign populations and have responded to increases in immigration with programmes explicitly aimed to facilitate social integration.

... Canada, the Czech Republic, Germany, Netherlands, and New Zealand – also do well, but have certain gaps or weaknesses in more areas ...

2. A second tier of countries – Canada, the Czech Republic, Germany, Netherlands, and New Zealand – also do well, but have certain gaps or weaknesses in more areas. Canada and New Zealand perform relatively less well in term of literacy levels among adults; Netherlands does well on literacy scores but has offsetting weaknesses in learning opportunities for adults.

Australia, Switzerland, the United Kingdom, and the United States are uneven in their performance ...

3. A third tier, including Australia, Switzerland, the United Kingdom, and the United States, is characterised by comparatively weak and uneven performance on the available measures. In Australia, the United Kingdom, and the United States, adults are well represented in formal education systems, but do less well on measures of literacy. Switzerland has high rates of upper secondary completion, but low rates of learning by adults beyond formal education, and low participation in ECEC.

... Ireland, Hungary, Portugal and Poland appear to do poorly in comparison to other countries; all are undergoing substantial reforms in initial education – key ingredients in lifelong learning.

4. Finally, a fourth tier of countries – Ireland, Hungary, Portugal, and Poland – do poorly in comparison to other countries on most measures. By history and circumstances, older persons in these countries are, on average, less qualified than elsewhere. All have implemented sweeping and ambitious reforms, the effects of which have yet to be released. In all these countries, there has been a high priority given to improving education opportunities for the young. Judged by past patterns, they perform well; judged in comparison to countries against which they compete in global markets, there is an evident need to persist with and strengthen these efforts.

What about lifelong learning value for money?

Lifelong learning, like any other public policy, is not something to be pursued at any cost. Its implementation has to compete with other priorities for scarce public resources. This raises the question of how countries compare with respect to the *cost-effectiveness* of their strategies for lifelong learning: how they compare in getting the most value for money spent on lifelong learning? One way to evaluate this is to consider whether the groupings of countries discussed above bear any relationship to the amount spent on formal education systems.

The Nordic countries spend more on learning than anyone else, but they appear to get results. For most other countries the picture is mixed, with no clear relationship between public spending on education and training, and lifelong learning.

In fact, the picture is mixed. The countries in the first tier stand out as the biggest spenders by a wide margin. In Denmark, Finland, Norway and Sweden, direct public expenditure for educational institutions (the usual measure of public spending education) averaged 6.6% of GDP in 1997, 1.5 percentage points more than the average for the other countries. They spend more and they get more, at least with regard to the measures included in the stock taking. Moreover, the real differences in cost-effectiveness may be greater, because other countries rely to a greater extent on additional private-source finding. For other countries the picture is less clear: there is little or no association between the rough assessment of their relative performance and their public spending effort on education.

When one scans the indicators covering the diverse components of lifelong learning, the overall picture that emerges raises two issues. The first, on a

substantive level, has implications for the formulation and implementation of lifelong learning policy. The stocktaking exercise suggests that only a minority of countries seem to be well on the way to making lifelong learning for all a reality. In the majority of countries, lifelong learning is largely an unfinished agenda. For the few that are consistently low relative to other countries on various indicators considered here, one might ask whether lifelong learning should be a high priority, in view of the pressing needs to consolidate initial education, schools in particular. For most of the rest, the stocktaking suggests that, though countries may fully subscribe to the goal of making lifelong learning for all a reality, they vary in their capacity to formulate and execute strategies for achieving such a goal. The shortcomings raise questions that range from the most obvious – is a country investing adequate financial resources – to more complex, such as whether opportunities are accessible on an equitable basis, how quality is assured, and whether diverse policies are mutually supportive in achieving systemic change. These questions bear further investigation.

The stocktaking suggests that only a minority of countries seem to be well on the way to making lifelong learning for all a reality. In the majority of countries, lifelong learning is largely an unfinished agenda because of difficulty in formulating and executing policy; in some countries one can ask whether lifelong learning should be a high priority.

The second issue, a technical one, is whether the picture that emerges from the various indicators is real, or the product of mis-specification of goals and objectives, and/or mis-measurement of inputs and outcomes. As was pointed out at the beginning, the stocktaking is drawing on existing data, rather than data that were collected for the express purpose of taking stock of lifelong learning. Some of the individual indicators that are considered in the preceding sections are crude approximations and merit further technical refinements. The stocktaking exercise also would benefit from less heavy reliance on the International Adult Literacy Survey and greater flexibility in the choice of indicators to reflect better the fact that countries differ with respect to their specific objectives and strategies for implementing lifelong learning. Whatever proxy measures are chosen, it is essential to have time-series data so as to capture evidence of change over time. But in view of the fact that so much of lifelong learning is built on existing learning arrangements that are fairly well documented, the technical weaknesses mentioned here probably would not alter the overall picture very much. After all, the overall picture is consistent with the view that emerges from other sources of information, such as the OECD education policy reviews and thematic reviews.

The stocktaking also suggests that indicators constructed from the best available data may have technical limitations, though the overall picture is consistent with the view that emerges from other sources of information.

Certainly the overall view should be sharpened, and possibly quantified so as to make it easier for policy makers to better understand and manage lifelong learning at a *systemic level*. At this point it would appear that such a composite measure of the systemic performance of national systems of lifelong learning might lack credibility, in view of the technical shortcomings outlined above, and the political sensitivity of the implications of what such a composite might reveal. It is for precisely such reasons that more definitive systemic indicators are needed. Without them, debate over legitimate differences in political preferences and strategies, become clouded by a lack of transparency in the underlying facts.

Presently a composite measure of systemic performance would lack credibility, but such a measure is needed.

6. CONCLUSION

This chapter represents a first attempt to take stock in a systematic way of where countries stand with respect to the realisation of lifelong learning. Individual country performance has been examined with respect to two broad lifelong learning goals: *a*) coverage and outcomes in foundation and

This chapter attempts to take stock of the implementation of lifelong learning and its affordability.

continuing learning; and *b*) how resources are being marshalled and used to make lifelong learning affordable. A wide range of comparative information on participation, completion, literacy and financing has been brought together in an effort to produce a set of comparable and meaningful indicators for a large number of OECD countries.

Ad hoc indicators have been constructed for doing this, though they are not ideal measures. One can conclude that countries differ considerably in the extent to which they have the ingredients for systems of lifelong learning …

Such an exercise is essential to the process of further translating the concept of lifelong learning for all into operational objectives, and, in the longer term, for evaluating progress towards realising those objectives. This exercise presently strains against the limits of the available information base, partly because lifelong learning as an orientation for policy and practice remains at early stages of definition as well as implementation in many countries. Data are either not fully comparable or are lacking on several key dimensions of lifelong learning. The assessment of where countries stand on the realisation of lifelong learning is forced to rely on *ad hoc* indicators constructed from existing data on inputs and outcomes of existing programmes and arrangements. The absence of time-series data for many of these proxy measures makes it impossible to evaluate progress over time, or to capture the effects of recent policy initiatives. These difficulties are compounded when one tries to establish internationally comparable indicators on new as well as conventional aspects of performance because there are important differences among countries in inputs and context, as well as fundamental approaches to lifelong learning. So, the indicators presented in this chapter provide only a partial assessment of where countries stand on the realisation of lifelong learning.

Notwithstanding the difficulties, the comparative stocktaking of lifelong learning presented in this chapter has value because it gives weight to learning at *all* stages and to a wide variety of forms of learning. In comparing countries on the basis of the indicators considered in this chapter, a number of conclusions are particularly noteworthy:

– There is considerable variation across countries with regard to the extent that they have achieved balance among the different sectors in which lifelong learning occurs. A few countries – notably the Nordic countries, Canada, the Czech Republic, Germany, the Netherlands and New Zealand – show up well consistently on the various indicators used in the chapter. They show balance across sectors. Those that do less well are countries in which there is less balance, due to high priority being placed on raising educational attainment levels, or insufficient attention given to ensuring quality of schooling outcomes, for example.

– For other countries it would appear that further progress is need with respect to participation in and/or outcomes of formal education systems. But it is important to add that the formal education system is not the only platform for further progress. At the level of early childhood education and care, some of the Nordic countries, Australia and the Netherlands opt for policies to favour early childhood development in the home. Further out on the lifelong learning spectrum, Belgium, Portugal, Spain and to a lesser extent, Ireland enrol appreciable numbers of adults – employed as well as unemployed – in labour market training

programmes, thus showing a readiness to supplement whatever employers and individuals might be doing.

– There are encouraging signs that Member countries are addressing the resource and financing issues that arise as they implement policies for lifelong learning. On the basis of the indicators considered in this chapter, it would appear that efficiency in the formal education sector is rising in many countries. This will reduce the financial constraints on further expansion. Constraints on the expansion of tertiary education are being eased by the rising contributions of students and their families. Although there are no indicators regarding resources and financing of adult learning, several countries have recently put in place innovative measures to reduce the private cost of capital of such investment.

But when it comes to knowing what they have accomplished, policy makers are flying blind in many respects.

A number of other conclusions also can be drawn from this chapter. One is that policy makers are "flying blind" when it comes to lifelong learning. Although there are sound, empirically-based arguments for policies that favour lifelong learning, there still is a scarcity of information on how much progress countries have made in realising lifelong learning, and on what works and what does not. It is virtually impossible to measure how well different areas of policy work together as systems of lifelong learning. Without such feedback, it is impossible to manage progress towards achieving the goals of lifelong learning.

There are critical gaps in internationally comparable information, particularly regarding costs of learning, and the volume and nature of learning in non-formal settings.

A second conclusion is that there are critical gaps in internationally comparable information in two areas. One concerns the costs of learning and, in particular, the extra costs associated with expanding provision in various settings, both inside and outside the formal education sector. The second concerns the volume and nature of learning activity and outcomes outside the formal education sector. Notwithstanding the considerable progress achieved through INES and IALS, there remain large gaps that must be closed if policy makers are to make informed decisions.

It seems feasible (though difficult) to develop and refine internationally comparable indicators for taking stock of progress towards realising lifelong learning, including measures to assess overall performance.

A third conclusion is that it seems feasible to develop and refine internationally comparable indicators for taking stock of progress towards realising lifelong learning, including measures to assess overall performance. To be sure, such indicators are approximations; inevitably they reflect biases as to the goals and objectives of lifelong learning. But, importantly, they provide a measuring stick for comparing countries. OECD will play its part, together with member countries and other international organisations and the European Commission in seeking to develop and refine such indicators and use them to improve policy making. ■

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