MEETING OF THE EDUCATION COMMITTEE AT MINISTERIAL LEVEL

ANALYTICAL REPORT: EDUCATION POLICY ANALYSIS

CHAPTER 3: CLOSING THE GAP: SECURING THE BENEFITS FROM EDUCATION AND TRAINING FOR ALL
1. At its Spring 2000 session, the Education Committee agreed to Secretariat proposals for background documentation for the meeting of the Committee at Ministerial level, to be held 2-4 April 2001. The documentation is to include an analytical report, prepared as a special issue of *Education Policy Analysis*. The volume is to be released at the Ministers’ meeting.

2. Following the format established for *EPA*, the analytical report is being prepared as a set of distinct and succinct chapters. The Chapters are:
   - Chapter 1: Lifelong learning for all: Policy lessons (PART1)
   - Chapter 2: Lifelong learning for all: Taking stock (PART2)
   - Chapter 3: Closing the Gap: Securing the benefits from education and training for all (PART3)
   - Chapter 4: Competences for the Knowledge Economy (PART4)
   - Chapter 5: Tomorrow’s Schools: Trends, Innovations, Policies (PART5)

3. Chapters 4 and 5 are being circulated in the form of abbreviated texts at this stage. These short versions provide the main lines of the argument, identify key evidence and references and advance preliminary conclusions.

4. The texts will be developed further and revised for review at the meeting of the Enlarged Bureau.

5. The Education Committee and the CERI Governing Board are invited to COMMENT on the draft chapters.
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1. Introduction

A critical challenge for emerging knowledge-based societies is to build and maintain social cohesion. At the heart of political debate and action is a growing awareness that global changes promising to enhance overall prosperity also risk increasing inequalities and dividing societies. This could increase the polarisation that has already taken place in many countries in, for example, the distribution of employment and of incomes. An OECD study of 21 countries found that income inequality grew in more than half of them from the mid-1980s to the mid-1990s, with simultaneous rises in the proportion of households that are “work-rich” and the proportion that are “work-poor”.1

The central importance of the distribution of human capital makes the role of education and training more crucial than ever in pursuing social equity and cohesion. Politicians and social commentators have long recognised the potential for education to contribute to equality, but have also acknowledged that it can sustain and accentuate social division. Equity is now an entrenched value in most public education systems, and is likely to continue to be so. But this chapter takes a fresh look at what this means for the ways in which learning is structured at the beginning of the 21st century. The chapter reviews a series of new challenges in fostering educational equity, such as the importance of learning throughout life and the need to avoid a “digital divide”. In these circumstances, achieving equity goals requires more than just ensuring wider access to learning for disadvantaged groups; the kinds of learning most needed in the knowledge economy must also be delivered to them.

Section 2 gives a short overview of the ways in which educational equity is important in the 21st century. Section 3 looks at the recent trends and the degree to which particular groups have shared the expansion of education attainment. Even though average overall educational levels over the past few decades in almost all countries have increased greatly as it is demonstrated in chapter 2 of this publication, the relative position of the disadvantaged has not always done so. Correcting this deficiency requires not just greater participation of excluded groups to higher levels of education than in the past, but also ensuring that they avail themselves of the new forms of learning which are needed. Sections 4 and 5 review learning trends in this changing context, first with respect to the digital divide and the specific requirement of using technology effectively, and then more generally in terms of the need for lifelong learning. The concluding section highlights some policy initiatives within education and training that can contribute to more equity in education and learning and hence to more social inclusiveness and cohesion.

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1 See Förster (2000) for details. The study also showed that this increase in the market income inequality was not, or not entirely translated into higher inequality of disposable incomes for the working-age population, as both transfers and taxes off-set the effects of earnings and capital/self-employment income on the distribution.
2. New and old reasons to care about educational equity

4. The distribution of education and learning in any country is a matter of profound political, social and economic importance. An abundant literature\(^2\) shows that investment in education and training is beneficial for individuals and for enterprises. Adults with higher educational attainment have, on average: better employment and pay prospects, better health, higher life expectancy and less chance of being involved in crime. Enterprise-based training can produce gains to individuals in themes of higher wages and better carriers and to firms in higher productivity and profits.

5. A key political issue is therefore how access to, and the benefits from, education and training can be made available to as many people as possible, including those with disabilities, members of low socio-economic groups, ethnic minorities and others facing disadvantages. Educational inequalities in this respect have tended to reflect social inequalities more generally, but governments today aim to make their systems more inclusive. The Department for Education and Employment in the United Kingdom, for example, aims “to give everyone the chance, through education, training and work, to realise their full potential, and thus build an inclusive and fair society and a competitive economy”.

6. While the desire for education to promote social justice dates at least from the advent of universal schooling a century ago, some recent trends have brought new urgency to this ambition:

- The growing importance of human capital in knowledge-oriented societies has already been mentioned. New jobs will continue to be concentrated in high-skilled services, although OECD economies will carry on to have a sizeable share of low-productivity jobs, especially in social and personal services. This may create new skill-based inequalities within the labour market and/or exacerbate existing ones.

- The use of information and communications technologies (ICT) is expanding rapidly in OECD countries. This has given rise to much debate about the emergence of a “digital divide”, with negative consequences for equity goals.

- A weakening of traditional social bonds creates further imperatives for education and for schools. In the case of families, for example, the past three decades has seen higher rates of family break-up and growth in the number of lone-parent families. Such families are at high risk of social exclusion. In such a context, the school’s importance grows as an institution that can bring communities together, while schooling itself has a key role to play as an experience to which every child has access. Schools can also play a valuable role in building community networks and social capital, especially where traditional support structures have weakened.

- The recognition that lifelong learning rather than just an initial episode of education is important for success in a constantly changing world. Since active learning in adulthood has always tended to be concentrated among those with a better initial education, this potentially leads to even greater social polarisation based on access to knowledge.

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3. How widely has progress in educational attainment been shared among different groups?

7. As it has been shown in chapter 2, access to upper secondary and tertiary education has thus grown dramatically, yet a minority of varying sizes in different countries continues to be at risk due to low educational attainment. As shown in Section 5 below, these inequalities can be accentuated in adult life, as opportunities for further learning are often greater for the most highly educated. So there is still a relative large part of the population in many OECD countries in a marginal situation in relation to learning and employment opportunities.

8. How well have groups that traditionally did worse in education fared in this context? This section looks at four such groups at the focus of education policy and debate: people of low socio-economic status; women; ethnic and other minority groups; and people with disabilities. These are not the only groups subject to “a marginal position” within education – for example members of rural and isolated communities are in some countries in a disadvantaged situation. Also, relevant equity categories may well shift over time as targets for some groups are achieved, as new categories become relevant (for example, there is mounting concern in some countries about poor achievement in secondary schools by adolescent boys). Also it is not uncommon for individuals to exhibit several of these characteristics at the same time, compounding disadvantage.

**Equity and socio-economic background**

9. Have students from low-income families improved their access to tertiary education over time compared with students from high-income families? Does better education still pass down largely through families, from one well-educated generation to the next? Is the access to prestigious universities still mainly reserved to high professional and income groups?

10. There is little comparative material across OECD countries on the relationship between educational output and socio-economic background. The International Adult Literacy Survey has, however, compared the literacy level reached by young adults (16-25 years old) and the length of their parents’ education in years. In all countries, people with better educated parents are more literate, but the strength of this relationship varies considerably across participating countries. In the Nordic countries, for example, the literacy scores for the young adults are relative high and vary less with parental education than in the other countries, suggesting that these countries have been relatively successful in combating inequalities in educational outcomes among young people.

11. In France, 62 per cent of the 15 year-old (9th grade) coming from the poorest 20 per cent of the families have had to repeat at least one year in school compared with 17 per cent of the 9th graders from the richest 20 per cent of the families. The study shows also that even if there are many factors behind this significant differences in young peoples’ performance, the socio-economic background is the strongest factor of explanation (INSEE, 2000).
BOX 1: EXAMPLES OF SOCIO-ECONOMIC BACKGROUND AND ACCESS TO TERTIARY EDUCATION

- In **Australia**, the share of students with a low socio-economic background in tertiary education has fallen slightly over the period 1991-1997. They represent 25 per cent of the population³ but only 14.5 per cent of them had access to higher education in 1997 as compared with 15 per cent in 1991 (Department of Education, Training and Youth Affairs, Australia, 1999).

- In **France**, the socio-professional category of the parents has a strong influence on the study their children undertake. Students whose father is a *cadre supérieur* or *professeur* have approximately 17 times more chances to be in a *classe préparatoire*⁴ and 5 times more to study at university (*1er cycle*) than the children of a worker. There seems to be little change in this pattern over time: students whose father had a tertiary education constituted 31 and 35 per cent of the university population in 1982-83 and 1996-97 respectively. The equivalent figures for students whose fathers are workers, are 12.6 and 12.7 per cent. Although there is a greater part of the French population who has a tertiary education and a smaller part that are workers in 1996-97 compared with 1982-83, there seems to be little progress over time for low socio-economic groups in their access to tertiary education (Attali, 1998).

- In **Ireland**, less than 25 per cent from the two social groups “Unskilled Manual Workers” and “Semi-Skilled Manual Workers” go to higher education in 1998 compared with over 75 per cent from the three social groups “Farmers”, “Employers and Managers”, and “Higher Professionals”. The highest proportionate increase has however, occurred for those social groups which had very low participation rates in 1980 (HEA, 2000b).

- In the **United Kingdom**, a recent survey by the *Sutton Trust* showed that the chances of being enrolled in one of the top 13 English universities are about 25 times greater if the student attended an independent (private) school than if they come from a lower social class or live in a poor area. In addition, children from less influential social classes represent 50% of the school population, but only 13% of entrants to top universities (Sutton Trust, 2000).

- In the **United States**, the percentage of high school completers aged 16-24 who were enrolled in college the October after completing high school varied considerably with family income throughout the period 1972-96 (see figure 1)⁵. Even though the students from families with a low income have improved their access to college over the period 1972-96, there remains an important social gap: 46.8 per cent of students from low-income families, 62.7 from middle-income and 78 per cent from high-income families enrolled in college in 1996. However, compared with 1972 the gap between students’ access to college has somewhat narrowed between the three family income categories (NCES, 2000c). However, to receive a college degree, a student must have successfully reached three milestones: high school graduation and college participation and college completion. According to (Post-secondary Education Opportunity, 1998), over the last two decades, there has been little change in high school graduation at each quartile of family income. Furthermore, over the last two decades, the lowest quartile of family income college completion declined, while at the highest quartile it increased. The end result is that over the last two decades there has been a growing inequality in college completion between the lowest and highest quartile of family income.

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³ People from low socio-economic status backgrounds are defined as those whose postcodes of permanent home addresses fall within the lowest 25 per cent of the population of a given region, determined by the Australian Bureau of Statistics Index of Education and Occupation.

⁴ A *Classe préparatoire* is the prestigious preparation for the entry to the *Grandes Ecoles* in France.

⁵ The low income families are defined as those families with the bottom 20 per cent of all family incomes; the high income families are the top 20 per cent of all family incomes; and the middle income families are those with the 60 per cent income in between.
12. The examples in Box 1 show that, despite a high political awareness that lower socio-economic groups often do not have equal access to tertiary education compared with higher socio-economic groups, there is little or no long-term progress in narrowing this social gap. The situation has not improved over the past decade. Analysis in OECD (1999e) finds that enrolment rates in the 1990s have often recorded below-average growth among lower socio-economic groups, and concludes:

“The expansion has not on the whole reduced disparities in access to tertiary education for people from different backgrounds: the extra places have been taken up at least as much by children from more privileged socio-economic groups as by others. Countries that wish to improve such access are therefore having to make conscious and sustained efforts to help prepare and assist all students rather than assuming that the creation of more places will be sufficient” (p. 65).

13. The issue of under-representation of low socio-economic status remains high on the equity agenda. However, the issue is not as straightforward as it might seem. It would be a mistake to assume that the category “low socio-economic status” is static. Note that the long-term effect of general educational expansion is to increase the size of better-educated groups across generations. Nevertheless, expansion and diversification have not made a great impact on the relative chances of the worst-off, even in those countries that have striven hard to create more equal learning opportunities for all.

**Equity and gender**

14. The proportionate rise in educational attainment at both upper-secondary and tertiary levels has in every OECD country been greater for women than for men over the last three decades. This has been a
case of catching up. Among those currently aged 55-64, only 6% of women compared with 12% of men have university degrees or equivalent, and 38% of women compared with 50% of men have upper secondary completion. For 25-34 year olds, the genders are, on average across OECD countries, exactly equal: 16% have university-level and 72% upper secondary qualifications in the case of both men and women.

15. This average masks the fact that in some countries women and in others men have substantially higher attainment. Women’s educational attainment has now become higher than men’s in a number of OECD countries have. The ratio of upper secondary graduates to total population in 1998 was more than 10 percentage points higher for women than men in Canada, Finland, Greece, Ireland, Portugal and Spain; the same is the case for net entry rates in type A tertiary education for Australia, Finland, Iceland, Ireland, New Zealand, Norway, Spain, and Sweden. In contrast, men’s ratio of upper secondary graduates to total population is 10 percentage points higher than women’s in Austria, Switzerland and Turkey for upper secondary education and the same is the case for the net entry rates in tertiary-type education A in the Czech Republic, Japan, Korea and Turkey (OECD, 2000a).

16. Historically, women have had less access to education in all OECD countries. In many, this is in general not being repeated for young people today, at least in terms of the quantity of initial education. Significant gender differences continue to exist, however, in the programmes studied at university, with women more likely to enrol in fields related to the health professions, education and the social and behavioural sciences, and less in the natural sciences and industrial and engineering fields. While, there has been an increase in the enrolment of women in first-degree tertiary education programmes in sciences, engineering and business, in most countries considerable imbalances remain. Women are also under-represented in Ph.D. programmes (HEA, 2000a).

17. These differences in study patterns may contribute to the fact that women continue to earn less on average than men, regardless of their educational level. Figure 2 compares women’s to men’s earnings at similar levels of education by age group. For all OECD countries, women’s annual earnings are much lower than men’s, irrespective of their educational attainment and age. This overall picture illustrates how, despite significant progress in women’s access to learning opportunities, they are still far from achieving equality in earnings. However:

- The size of earning inequalities varies greatly across countries. Women in the age group 30-44 years without upper-secondary education in Finland, Hungary, Denmark, Portugal and Sweden earn most relative to men – between 71% and 77% as much. In contrast, women in the same age group with similarly low credentials in the United Kingdom, the Netherlands, Canada, New Zealand and the United States earn only around 50 per cent of the salaries of less-educated men. In the case of women with tertiary education in the age group 30-44 years, in Ireland they come closest to men’s salaries with over 90%, and in Portugal, Denmark, Spain and Finland they are between 71 and 76%. At the other extreme in Italy, the Netherlands, New Zealand and the United States, they earn only between 57% and 66%.

- The effect of more education on earnings equalities does not follow a consistent pattern. In the Netherlands, New Zealand and the United Kingdom, the differential narrows considerably with increasing educational attainment. In a number of countries, by contrast, including Italy and Sweden, the reverse relationship tends to be true: earnings differences between men and women tend to be particular high at the tertiary level. Thus, although higher educational attainment is generally associated with higher earnings for both men and women, it does not seem to contribute systematically to reductions in gender inequalities (OECD, 2000a).
Figure 2: The relative earnings of women in successive generations
Mean annual earnings of women as a percentage of men’s earnings at the same educational level – ages 55-64 and 30-44, 1998

Figure 2 Side-note:
Women continue to earn less than men with roughly similar education levels, although the gap is narrower for younger adults in most countries

- Different career and occupational choices can explain some of the differences between men and women’s earnings, as can differences in the amount of time men and women spend in the labour market, and the relatively high incidence of part-time work among women.

- Figure 2 shows at least some movement towards more equality of earning between one generation and the next. Although the movement is not dramatic, in most countries gender disparities are lower for the younger age group shown. This is especially the case for women with a tertiary educational background. The change has been greatest in the only four
countries in which older women graduates earn below half their male peers: Italy, the Netherlands, New Zealand and the United States.

**Equity and minority groups**

18. Two main groups are in this chapter considered as minority groups because they are often targeted in equity educational programmes:

1. Migrant groups in societies (e.g. Turkish people in North Europe, Portuguese and North Africans in France, and Hispanics in the US etc.);

2. Minority indigenous populations (e.g. Australian Aboriginals, Native Americans etc.).

19. Historically, minority groups have often not had equal access to learning resources and in some cases they have been denied basic human rights. Today, many OECD governments have taken specific policy initiatives to counterbalance the difficulties that minorities are meeting in education both related to the fact that they might not have mastered the main language taught in the education system and their different cultural background. However, initiatives taken by educational authorities have often to be followed up with other public initiatives to address compound disadvantages arising from, for example, low socio-economic background combined with a poor urban or rural location.

20. Despite these efforts, the examples mentioned in Box 2 show a pattern of continuous underachievement for certain ethnic groups which starts in early education, continues through further and higher education, and persists in the labour market. They also show that not all ethnic minorities are under-represented in education. For example, Indians and some other Asian people in the United Kingdom and some Asian people in the United States are in general doing well in the education system and in the labour market. This indicates that equity policies need to focus sharply on disfavoured minority groups and the conditions affecting their access and achievements in education.

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**BOX 2: EXAMPLES OF ACCESS OF MINORITIES IN EDUCATION**

- **In Australia**, the Aboriginal and Torres Strait Islanders have achieved an equitable representation among students entering tertiary education. However, nearly one third of Indigenous Australian entrants in 1997 was enrolled in enabling courses, compared with only 1 per cent of non-Indigenous Australians. Furthermore, the rate at which Indigenous students remain in courses to completion is only 78 per cent that of non-Indigenous students (Department of Education, Training and Youth Affairs, Australia, 1999).

- **In the United Kingdom**, Bangladeshi, Black and Pakistani pupils perform less well than other pupils do in the early key stages of education. Pupils from these three ethnic groups also tend to achieve significantly less by the end of compulsory education. A youth cohort study of 18 year olds in England and Wales shows that, at the age of 18, a higher proportion of Indians and whites have a level 2 equivalent qualification or higher (83 and 68 per cent respective) than Black (48 per cent) or Pakistani/Bangladeshi students (56 per cent) (DfEE, 2000). The study also shows that the unemployment rate is up to three times the average for some ethnic groups such as Bangladeshi, Pakistani and Black workers, but less than 50 per cent above average for Chinese and Indians.

- **In the United States**, the percentage of high school completers aged 16-24 who were enrolled in college the October after completing high school were respectively 67, 56 and 51 per cent for White, Black and Hispanic students in 1996. As shown in Figure 3, the rate at which this entry rate increased between 1972 and 1996 was particularly high for white students (up 17 percentage points) and less for the black students (up 11 points) and the Hispanic students (up 6 points). Furthermore, the percentage of 18-through 24-year-olds who completed high school shows that both Blacks (81 per cent) and Hispanics (63 per cent) are below average for the American 18-24 year-old population (85 per cent) (NCES, 2000c).
Equity and people with disabilities

21. In numerous OECD countries a particular effort has been made to integrate people with a disability into the regular system at all levels of education. Issues of equity and civil rights have been important determinants in this development, but other influences include changes in parents’ attitudes, teacher supply and training, better equipped schools, and the introduction of information technology (OECD, 1999f). Students with a disability distinguish themselves from other equity groups in the sense that disability can affect individuals from families throughout the social structure, and randomly at any time.

22. It is estimated that 15 to 20 per cent of students will at some stage of their school career call upon services relating to special educational needs. OECD work on statistics and indicators on special education (disabilities, learning and behaviour difficulties, and disadvantage) shows that there is a wide range of different understandings in OECD countries on how to define special educational needs. Some countries, for example, recognise only students with traditionally-defined physical or severe mental disabilities, while others include learning difficulty and disadvantage.

23. Despite the efforts that have been made to improve access and achievements of students with disabilities at the different educational levels, the examples in Box 3 show that they are still under-represented in education. Nevertheless, the past decades have shown considerably higher participation and achievements of disabled students from primary to post-secondary education in many countries. The equity challenge for this group has now been transformed in most countries to one providing an inclusive approach within an accessible environment.
BOX 3: Equity and people with disabilities

- **In Australia**, despite an increase in participation in tertiary education (2.4 percent of tertiary students identified themselves as having a disability in 1997 versus 1.8 percent in 1996), the disabled population is still under-represented (4 per cent of the relevant population group have disabilities). However, the retention rate for students with a disability is almost identical to the rate for other students (Department of Education, Training and Youth Affairs, Australia 1999).

- **In Germany**, the proportion of students with a disability is about 2 per cent (15th Social Survey of Student Life). Students with a disability or chronic illness, however, more frequently change discipline, degree or higher education institution. Among those whose studies have been strongly impaired by health difficulties, there is an above-average change of higher education institution (25 per cent) and of study dropout (34 per cent) (Schnitzer, K. et al., 1999).

- **In the United Kingdom**, according to the Labour Force Survey, about 7 per cent of the 18-30 age group reported a longstanding disability, while only 2 per cent of higher education students did. Furthermore, 18 per cent of the 18 year olds with a disability or health problem had at least achieved a level 3 qualification, while 39 per cent of the 18 year old without a disability or health problem had obtained such a qualification (DfEE, 1999).

- **In the United States**, according to a NCES report on students with disabilities in post-secondary education, 63 per cent of such students were enrolled in post-secondary education two years after completing high school by 1994 versus about 72 per cent for students without disabilities. The students with a disability were more likely to choose a shorter post-secondary education than those without. In a cohort of students who had earned bachelor’s degrees in 1992-93, 4 per cent of those without disabilities, and 11 per cent with disabilities, were unemployed in April 1994 (NCES, 1999).

4. **The Digital learning divide**

24. The increasing use of ICT is causing new inequalities in access to learning opportunities. Those without access to ICT and without ICT skills become less and less capable of participating in the knowledge-based society, which makes increasing use of technology and information. The resulting so-called *digital divide* represents a major challenge for policy-makers at all levels. In this chapter, the focus will be on the digital divide that undoubtedly exists within the developed world – both within individual OECD countries and between different ones.

25. Figure 4 shows respectively the percentage of households possessing a Personal Computer (PC) and the ratio of students per computer in upper secondary education for various OECD countries in 1998. The percentage of households with a computer varies from a high of 65 per cent in Denmark to a low of 10 per cent in the Czech Republic. Upper secondary schools have between 4 students per computer in Norway and 35 in Portugal. Investment in hardware, software and telecommunication links in families and educational institutions has been growing exponentially in all OECD countries. This investment has improved access to computers and the Internet, yet resources remain unevenly distributed both within and across countries.

26. Schools and education authorities are well aware of the importance of integrating ICT into teaching and learning, both to prepare students for the information society and to make the most of new learning tools. Policy-makers are encouraging schools, libraries and learning centres to invest in computers and access to the Internet in order to reduce the disadvantage of those who have no access to ICT in their homes, by enabling them to access learning and information resources at a public institution.
27. Table 1 shows the percentage of 1st to 8th grade students using computers at school, at home, and at home for schoolwork by gender, ethnicity, and household income in the United States in 1997. There is almost no difference between how many girls and the boys use computers at these ages, although these data do not show how much time is spent using them. Other surveys have shown that boys spend more time using computers than girls.

28. There is also only minor variation between the use of computers at school between different ethnic and socio-economic groups, with white children and those from higher-income families using computers slightly more often than less privileged groups. In contrast, Table 1 shows that the white children’s and the children from high-income families’ use of computers in homes and at home for schoolwork are much higher than Black and Hispanic children or children from low-income families in the United States. Several OECD countries, including Australia, France and the United States, have targeted programmes for children and schools in poor neighbourhoods, which need extra financial help for ICT investment (OECD, 1999e).
Figure 4

![Chart 1. Percentage of households possessing a PC in](chart1.png)

Chart 1. Percentage of households possessing a PC in

Chart 2. *Students per computer in upper secondary education (1998)*

![Chart 2.](chart2.png)

Chart 2. * country did not satisfy all sampling criteria, source: ¹ data from IAS/SITES ² data from OECD (1999e)*

Figure 6 Side note:
Both at home and at school, students' access to computers varies widely in different OECD

29. At present a digital divide between rich and poor within OECD countries is also evident when it comes to Internet access. Figure 5 shows home access to the Internet by gross income decile group in 1998-99 and 1999-2000 in the United Kingdom. As few as 3 per cent of poorer households are online, compared with 48 per cent of more affluent households. This disadvantage is severe throughout the poorest 40% of the population, well under 10% of whom are consistently on-line.
30. Thus, the poorest households and some ethnic groups are being left behind in the digital revolution. They often cannot afford to buy computers and Internet access. However, there is evidence to suggest that, even if schools do not provide poorer students and ethnic groups with equal access to ICT, they generally help correct for the much more unequal access that exists at home.

31. In a sense the digital divide reinforces the existing inequalities in learning access and achievements. Children from low-income families, the disabled, members of ethnic minorities, do often have less access to digital technologies. One might argue that ICT simply gives another dimension to the profound inequalities analysed above in relation to social class, ethnicity, gender and disability. This is undoubtedly the case, but we can argue that it is of a different dimension, since low technology literacy has arguably come to represent in itself one of the most important forms of exclusion in societies where ICT is now so central.

Table 1. Student use of computer in 1-8 grades, 1997 in the United States

<table>
<thead>
<tr>
<th></th>
<th>Percent of students using computers at school</th>
<th>Percent of students using computers at home</th>
<th>Percent of students using computers at home for school work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>80</td>
<td>44</td>
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<tr>
<td>Female</td>
<td>79</td>
<td>43</td>
<td>24</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>White, non Hispanic</td>
<td>84</td>
<td>54</td>
<td>30</td>
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<tr>
<td>Black, non Hispanic</td>
<td>72</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Hispanic</td>
<td>68</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td><strong>Household income</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>$15,000 to $19,999</td>
<td>75</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>$75,000 or more</td>
<td>86</td>
<td>81</td>
<td>49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>79</td>
<td>43</td>
<td>24</td>
</tr>
</tbody>
</table>

Source: NCES (2000a).

Figure 5

Home access to the internet by gross income decile

Source: National Statistics, UK
5. Equity and lifelong learning

32. When considering how to reduce levels of social and economic exclusion due to shortfalls in adult skills and competences, policy makers need to address more than just inequalities in educational attainment and access. It is now well understood that to be of greatest use on the labour market and in society more widely, people need to learn in ways that can be put to practical use throughout life. Above all, they need a set of general competences that equip them to go on learning and adapting to new contexts. This is not identical to being able to complete courses and pass exams in initial periods of education and training.

33. The International Adult Literacy Survey (OECD, 2000c) aims to measure directly the ability of adults to complete tasks using written materials in the kinds of situations encountered in everyday life and at work. The proportion of people with low levels of literacy in these terms can be measured by looking at those who show only rudimentary literacy skills. In 14 out of the 20 countries that participated in the survey, at least 15 per cent of all adults were at literacy level 1 – a level which expert opinion judges to be too low to cope with the most basic tasks required in a knowledge-based society. These countries are: Australia, Belgium (Flanders), Canada, Chile, Czech Republic, Hungary, Ireland, New Zealand, Poland, Portugal, Slovenia, Switzerland, the United Kingdom and the United States. The survey shows, furthermore, that there are significantly fewer opportunities to work for adults with low literacy skills: they are less likely than average to be in employment, less likely to find work when looking for it, and less likely to work regularly when a job is obtained. For example, in Australia, Belgium (Flanders), Canada, Denmark, Germany, Ireland, Finland, New Zealand, Slovenia and the United Kingdom, the incidence of unemployment is twice as high among adults with low literacy skills than among adults with medium to high skills.

34. The survey shows that young adults aged between 26 and 35 have higher literacy scores than adults aged 56-65 in every OECD country participating in the survey. This can partly be explained by the fact that the younger population in OECD countries is more likely to have received extended formal education. However, this is not the whole explanation as the survey also indicates that, even when only adults with completed secondary education are included, the skill differences by age remain. This could possibly reflect a positive trend in the quality of education over time, but is also likely to be affected by the experiences undergone in adulthood.

35. An important influence on the development of competences during adulthood (although by no means the only one) is access to further education and training. Training rates vary by level of initial education. This arises from behaviour by employers which government programmes have limited scope to counteract. Employers spend much more resources on training their high-skilled, well-educated employees than their low-skilled, low-educated employees. The proportion of individuals receiving financial support from the public sector for training is less than 10 per cent in 16 of the 20 countries which participated in the International Adult Literacy Survey. Even after controlling for full or part-time work, firm size and occupational category, those workers in Canada, Chile, the United Kingdom and the United States who make greatest use of literacy skills at work are six to eight times more likely to receive support from their employers for education and training than those who use workplace literacy skills the least (OECD, 2000c).

36. In general, then, training of adults tends to reinforce skill differences resulting from unequal participation in schooling in OECD countries. But this difference is much greater in some countries than in others. Figure 6 shows, for examples, that the participation rate of the least educated adults in the United Kingdom and New Zealand in education and training is greater than that of university graduates in several other countries. For those who do engage in training, its intensity varies, but in no systematic fashion: in
Ireland, for example, people with low education who participate do so for relatively large amounts of time; in Canada and Poland, it is the most qualified whose training is of greatest duration.

37. Other evidence indicates that training is most evenly distributed across educational levels in Ireland, Japan, New Zealand, the Netherlands and several Nordic countries, and least equally in Belgium, Hungary and southern Europe (OECD, 1999d). Training rates also decline with age, but this also varies greatly across countries. Workers aged 50-54 years receive almost as much training as those aged 25-29 in the United States and the Nordic countries (except Finland), while the older group receives much less training than the younger in France, Greece, Portugal and Spain. So progress in reaching the goal of lifelong learning for all has been uneven.

Figure 6. Learning by adults with different educational levels
Job-related education and training over the past year, by employed adults, by highest level of educational attainment (1994-95)

Source: OECD, 2000c.

Figure 6 Side-note:
In all countries those with more education participate more in training. However, there is less of an association between educational attainment and the duration of time spent in training.
6. Conclusions

38. Knowledge-based economies and societies cannot afford to exclude a large part of their population from access to education and learning resources. Furthermore, inequalities in society often raise problems of mutual understanding and adjustment within organisations, in society at large and in the democratic process. New jobs will continue to be concentrated in high-skilled services, although OECD economies will carry on to have a sizeable share of low-productivity jobs, especially in social and personal services. OECD countries need therefore to pursue a continuous and comprehensive policy approach combining policies across several sectors of public policy, including employment, welfare, health, housing, etc., if they hope to counterbalance these trends.

39. The issues of equity are broadly social, cultural and economic and not just educational. There are cultural and social norms at stake, political interests and active pressure groups at work. Education policies alone will not be sufficient in addressing the equity challenge. Clearly social inequalities existing outside the education system contribute to educational inequalities in terms of access, opportunity, process and outcomes as well as in terms of the consequences of achievements and attainment.

40. The focus in this chapter is on the role of education and learning in contributing to social equity and cohesion. The impressive expansion of access to the education sector from early childhood education to adult training has contributed to a steady progress in educational attainment, which in general has widened learning opportunities. There is, however, still a relative large part of the population, especially people from low-income families, ethnic minorities, disabled and to some extent women, who are disadvantaged in relation to learning and employment opportunities. People from low socio-economic backgrounds and ethnic minorities have often experienced an improvement in access to the different education levels. However, the gap in educational access and achievements between different economic and ethnic groups has not narrowed over the past two to three decades in several OECD countries.

41. The aims of past education policies in OECD countries to promote equal learning opportunities for all have therefore only partly been a success. There is still a lot to be done to reduce the number of people at the margin of learning and employment opportunities. There are no easy solutions: the equity challenge is real, but policy responses are not straightforward.

42. This chapter limits itself to policy initiatives within education and learning that can contribute to more equity in education and learning opportunities and hence to more social inclusiveness and cohesion. What is less certain is the extent to which other guiding policy aims within education (e.g. improving accountability or the promotion of market mechanisms in education) have supported or counterbalanced the pursuit of equity. The challenge of combating exclusion through learning is not easy: those with acute learning needs are most at risk of exclusion, while being also least likely, as we have seen, to become lifelong learners. Therefore, an expansion of lifelong learning may in itself potentially exacerbate rather than reduce existing inequalities. Strategies and initiatives must be targeted at those most at risk.

43. The following policy initiatives to promote more equity in education and learning are not intended to be exhaustive, but aim to give guidance to governments on what kinds of measures can combat social exclusion.

− **Aim for good-quality upper-secondary education for all.** Educational attainment both at secondary and perhaps even more at post-secondary level is likely to continue growing over the coming years. In particular, countries where a significant minority of young people still does not complete upper-secondary will want to move towards universal completion.
Continued overall volume growth of the access to secondary and post-secondary education is one of the most effective ways to achieve more inclusiveness. The focus should, however, not only be put on a quantitative perspective, where participation is counted in terms of mere attendance, but also on a qualitative imperative where such access and participation will fall short without good-quality teaching and genuine learning.

- **Adapt to individual needs.** The education system (especially secondary and post-secondary education) should be diversified, flexible and open to good practices (including, for example, adoption of new forms of teaching and learning and a trainee period), in order to be able to include students who are less skilled academically. The diversification and flexibility can, for example, be provided by distance learning and by recognition of work experience (informal learning) as part of the study programmes taken. Several OECD countries as, for example Norway and the UK, have already taken such initiatives.

- **Deploy resources strategically.** The challenge effective implementation of equity policies does often call for additional resources – for extra numbers of students in the education system, for extra and more intensified teaching of students with learning difficulties, for facilities and materials for students with a disability, for teacher development etc. However, numerous studies have shown that equality does not depend only on the quantity of resources, but also on the quality of teachers and schools, and for the degree of co-operation between children, teachers and parents.

- **Set clear and achievable objectives.** Clear goals and priority setting, targeting, and monitoring of equity policies in the education system at all levels must be encouraged. Several such initiatives have been taken in OECD countries, but further development especially as regards follow-through will be necessary. It is important that equity is identified as an integrated part of the education institutions’ broader strategies and not seen as something special, separate from the institutional mainstream of teaching.

- **Target adult training at disadvantaged groups.** There is clear evidence that those who have less education and are at most at risk at the labour market, are those who get less adult training. Furthermore, employers are often spending much more resources on training their high-skilled, well-educated employees than their low-skilled, low-educated employees. Public strategies and initiatives in adult training must therefore be targeted at those at risk. This is not an easy task because even if public training initiatives target this group, it must be taken into account that employers’ part of work-related training is a significant element in most countries. However, for example, targeted, fiscal incentives can be used to encourage investment by small-and-medium-sized enterprises in training or on any training directed at older workers, above forty, as it is the case in the Netherlands.

- **Support the development of social capital.** Adult learning both fosters social capital and depends on it. Policies to enhance networks, communities and structures that positively support learning (investment in social capital\(^6\)) represent sound approaches to bolster employability, while strengthening in adults their own sense of inclusion, and confidence in

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\(^6\) The OECD reports on “Overcoming Exclusion through Adult Learning” and “Cities and Regions in the New Learning Economy” are stressing the importance of social capital in relation to improving peoples’ learning capabilities and hence their employability. See also the OECD/CERI work on the importance of human and social capital for economic growth and sustainable development (forthcoming 2001).
themselves, their communities, families and personal lives. This is especially crucial for those at risk of exclusion. Investment in human and social capital is therefore often complementary.

- **Make schools support civic values.** The role of compulsory schools in building community networks and social capital is becoming relatively more important with the weakening of traditional family structures in many OECD countries. The need for promotion of civic and democratic values and ethics in schools is therefore growing. Several countries in OECD, for example France, have launched such initiatives.

- **Educate people with disabilities in an inclusive manner.** Abundant research material from OECD countries shows that students with disabilities should, as far as possible, be educated in their local mainstream school. Funding models for schools and students should work to encourage regular schools to keep students with disabilities in mainstream schools. The evidence continues to show that, on a per capita basis, inclusive systems are generally less costly to operate than segregated systems (OECD, 1999f).

- **Emphasise equal access to technology.** ICT literacy is becoming an norm at the labour market in OECD economies. Providing access to computers and the Internet in schools, libraries and other public learning centres is, as we have seen from the evidence from the United States, one way of establishing more equal access and counterbalancing the digital learning divide. These institutions generally help correct for the much more unequal access that exist at home.

- **Obtain reliable data.** There is a need for better data and indicators on equity issues in education and learning at regional, national and international levels. Good, reliable data and indicators on equity issues can make an immediate impact on equity policies in education and learning.
BIBLIOGRAPHY


J.BYNNER “Risks and Outcomes of Social Exclusion Insights from Longitudinal Data”.


THE ECONOMIST (06/03/00) “Back to Class War”, UK.
