Unequal chances to participate in adult learning: international perspectives

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Fundamentals of educational planning

The booklets in this series are written primarily for two types of clientele: those engaged in educational planning and administration, in developing as well as developed countries; and others, less specialized, such as senior government officials and policy-makers who seek a more general understanding of educational planning and of how it is related to overall national development. They are intended to be of use either for private study or in formal training programmes.

Since this series was launched in 1967 practices and concepts of educational planning have undergone substantial change. Many of the assumptions which underlay earlier attempts to rationalize the process of educational development have been criticized or abandoned. Even if rigid mandatory centralized planning has now clearly proven to be inappropriate, this does not mean that all forms of planning have been dispensed with. On the contrary, the need for collecting data, evaluating the efficiency of existing programmes, undertaking a wide range of studies, exploring the future and fostering broad debate on these bases to guide educational policy and decision-making has become even more acute than before. One cannot make sensible policy choices without assessing the present situation, specifying the goals to be reached, marshalling the means to attain them and monitoring what has been accomplished. Hence planning is also a way to organize learning: by mapping, targeting, acting and correcting.

The scope of educational planning has been broadened. In addition to the formal system of education, it is now applied to all other important educational efforts in non-formal settings. Attention to the growth and expansion of education systems is being complemented and sometimes even replaced by a growing concern for the quality of the entire educational process and for the control of its results. Finally, planners and administrators have become more and more aware of the importance of implementation strategies and of the role of different regulatory mechanisms in this respect: the choice of financing methods, the examination and certification

procedures or various other regulation and incentive structures. The concern of planners is twofold: to reach a better understanding of the validity of education in its own empirically observed specific dimensions and to help in defining appropriate strategies for change.

The purpose of these booklets includes monitoring the evolution and change in educational policies and their effect upon educational planning requirements; highlighting current issues of educational planning and analyzing them in the context of their historical and societal setting; and disseminating methodologies of planning which can be applied in the context of both the developed and the developing countries.

For policy-making and planning, vicarious experience is a potent source of learning: the problems others face, the objectives they seek, the routes they try, the results they arrive at and the unintended results they produce are worth analysis.

In order to help the Institute identify the real up-to-date issues in educational planning and policy-making in different parts of the world, an Editorial Board has been appointed, composed of two general editors and associate editors from different regions, all professionals of high repute in their own field. At the first meeting of this new Editorial Board in January 1990, its members identified key topics to be covered in the coming issues under the following headings:

1. Education and development.
2. Equity considerations.
3. Quality of education.
4. Structure, administration and management of education.
5. Curriculum.
6. Cost and financing of education.
7. Planning techniques and approaches.
8. Information systems, monitoring and evaluation.

Each heading is covered by one or two associate editors.

The series has been carefully planned but no attempt has been made to avoid differences or even contradictions in the views expressed by the authors. The Institute itself does not wish to impose

any official doctrine. Thus, while the views are the responsibility of the authors and may not always be shared by UNESCO or the IIEP, they warrant attention in the international forum of ideas. Indeed, one of the purposes of this series is to reflect a diversity of experience and opinions by giving different authors from a wide range of backgrounds and disciplines the opportunity of expressing their views on changing theories and practices in educational planning.

This booklet deals with the needs for adults to continue learning after they leave school. For some it is possible to gain basic literacy and language skills through remedial courses if they were deprived of such education as youngsters; for others it is an opportunity to continue their education through professional development and vocational education, and to develop their professional competencies throughout their working lives to help them avoid losing their job, being unemployed for long periods, or to simply enable them to be promoted or find better work. Beyond merely enhancing adults' employment opportunities, adult education and training plays an important role in integration, in combating social exclusion and in promoting social cohesion, and also assists them in their day-to-day life.

In discussing the motivations for seeking some kind of training, the authors distinguish the various forms that such education can take; be it lifelong, lifewide, formal, non-formal or informal. They also explain how to go about measuring and analyzing participation in adult education and training, using data of refined research whilst underlining the dangers and pitfalls to be aware of when comparing such surveys.

Although the data used is essentially from developed countries, it is relevant all over the world.

IIEP is very grateful to the authors for sharing their knowledge of this important topic.

Mark Bray
Director, IIEP

Composition of the Editorial Board

Preface

Adult education and training is an enormous field of endeavour. This is not surprising given the changing world in which we live and the consequent changes in jobs that ensue. The new jobs involve new skills that must be learned. These are generally covered in continuing technical and vocational education and training. But there are other forms of education in the non-vocational area that are needed to maintain social cohesion and good citizenship. These are normally covered in remedial adult education, adult higher education and popular/liberal adult education. In short, lifelong learning is part of everyday life. The authors have recognized that lifelong learning is also 'lifewide' (taking place in many settings, the main ones being formal, non-formal and informal learning), and concerns learning rather than just education.

Unfortunately there is a dearth of information across the world about the types of adult learning that occur as well as the frequency and magnitude of such education. Thus the data used in this booklet are mainly from developed countries. But, it must be noted that they are the only comparable data that are available. It is to be hoped that in the near future further data of this kind will become available from many more countries.

Based on these data, the authors of this booklet, who are famous researchers in the field of adult learning, have identified international patterns of who is and who is not participating in adult learning, and have discussed the motivating factors that can explain observed inequalities.

In *Chapter II* on patterns of participation they have looked at organized forms of adult learning, adult learning for job-related as well as non-job-related reasons, post compulsory learning, and informal learning. In the same chapter on who does and who does not participate in adult learning the breakdown of the data has been done for gender, age, socio-economic background, educational level, unemployed, urban-rural, and minority groups. This has yielded a great deal of interesting information. The identification of the

motivating factors, presented at the end of *Chapter II*, is a complex issue and the analyses have provided interesting and challenging results. Not only have the results been presented, but the pros and cons of the different arguments about motivating factors have been discussed.

Finally, in *Chapter III*, the authors have summarized the main findings, examined the implications of these and made suggestions for further research.

All readers interested in adult education will be interested in this booklet, not only for the results it provides but also as a challenge on how to ensure better and wider data collections in the near future.

The IIEP is indebted to Richard Desjardins, Kjell Rubenson and Marcella Milana for their having made time in their busy schedules to write this booklet.

Now, enjoy the booklet.

T. Neville Postlethwaite

Contents

List of abbreviations

AET	Adult education and training
ALL	Adult Literacy and Lifeskills (Survey)
CEDEFOP	European Centre for the Development of Vocational Training
CERI	Centre for Educational Research and Innovation
CTVET	Continuing technical and vocational education and training
ELFS	European Union Labour Force Survey
HRDC	Human Resources Development Canada
IALS	International Adult Literacy Survey
ICT	Information and communication technology
ISCED	International Standard Classification of Education
LAMP	Literacy Assessment and Monitoring Programme
LSMS	Living Standards Measurement Study
MICS	Multiple Indicators Cluster Survey
NGO	Non-governmental organization
OECD	Organisation for Economic Co-operation and Development
TRAL	Thematic Review of Adult Learning
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization

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I. Introduction

Objectives, scope and organization of this booklet

Today, the capacity of nations, governments, civil society, labour markets, firms and individuals to adjust to change, improve standards of living and capitalize on technological development depends in large measure on the competencies of the adult population. Improving the stock of competencies available to both the economy and civil society through investment in adult learning is therefore an issue of considerable strategic importance. Otherwise, there is an increased risk of exacerbating socio-economic divisions and of marginalizing segments of the population. From this perspective, it is important to view adult learning not only as a means to enhance productivity and facilitate labour force participation, but also as a means to assist individuals in their everyday actions and promote active citizenship. Accordingly, it is important to monitor how learning opportunities are distributed across different segments of the population, especially as promotion of and investment in lifelong learning expand.

The purpose of this booklet is to document cross-national patterns of adult learning, and in particular the unequal chances to participate in adult learning. In so doing, an effort is made to identify important motivating factors for participating in adult learning. A better understanding of cross-national differences in such factors can in turn help us to understand better the observed patterns and the possible implications of different policy choices such as, for example, the different funding schemes used to finance adult learning.

The specific objectives of this booklet are to:

- make available the internationally comparative data on adult education to a wide audience;
- present an overview of the extent of adult learning in a comparative perspective;

- identify international patterns of who is and who is not participating in adult learning, including unequal chances to participate; and
- discuss various motivating factors that can explain observed nequalities in participation, by using internationally comparative data.

The scope of the booklet is limited by the dearth of available international comparative data on adult education and training (AET). As a consequence, the range of countries covered is limited; the majority are countries of the Organisation for Economic Co-operation and Development (OECD), which include the majority of developed countries and also a number of countries in transition. Even among these countries, very few comparative data on AET were available until recently.

This booklet is divided into three chapters. First, the introduction provides a brief overview of key issues and trends in adult learning research and policy, as well as the availability of comparative data and evidence. Second, data analyses provide a comparative overview of adult learning patterns. This second chapter is divided into three sections. The first provides an overview of overall participation rates and discusses some of the relevant issues regarding its measurement. The second provides an overview of who is and who is not participating in adult learning opportunities. The third outlines some of the major motivating factors for participating in adult learning and discusses how these relate to observed patterns. The final chapter offers some conclusions and implications for research and policy.

Brief overview of key issues and trends in adult learning research and policy

Adult learning for what?

Industrial countries are undergoing a period of fundamental economic transformation in which knowledge and information are becoming the foundations for economic activity. The education system, broadly defined, can be viewed as a creator both of the requisite skills for the new economy and of the social cohesion

necessary to permit its stable development. The new economy holds the promise of increased productivity and an improved standard of living. It also introduces a new set of transitions and adjustment challenges for society, industry and individuals, which has the potential to increase the permanent exclusion or marginalization of segments of the population and exacerbate socio-economic divisions (Rubenson and Schuetze, 2000). Welfare researchers have concluded that lifelong learning, including adult learning, is part of the solution (Esping-Andersen, 1996: 259). Adult learning can promote competencies to adapt to the demands of the new economy and to allow full participation in social and economic life. Lifelong learning gives citizens the chance to acquire adequate skills to prevent low-paid jobs from becoming life cycle traps. In addition, recent research suggests that a more equitable investment in skills enhances overall labour-force productivity (Coulombe, Tremblay and Marchand, 2004; OECD, 2005: 5).

The concepts and principles of lifelong learning

In the early 1970s, lifelong education (a UNESCO project) and recurrent education (a project of the OECD) were introduced as master concept and guiding principles for restructuring education (Faure *et al.*, 1972; CERI, 1973; Dave, 1976). After initially being primarily concerned with education and training systems, the focus was broadened to include all purposeful learning activities. The concept of lifelong learning is based on three fundamental attributes:

- it is **lifelong** and therefore concerns everything from cradle to grave;
- it is **lifewide**, recognizing that learning occurs in many different settings; and
- it focuses on **learning**, rather than limiting itself to education.

The **lifelong aspect** focuses on the formative years that are considered to be of crucial importance, and pre-primary and primary education are both very much in the frame. It raises questions about the structure and interrelationship between different sectors of the education system. A crucial prerequisite for lifelong education is a system that promotes smooth progression with no programmes leading to dead ends. Mechanisms for the transition from school to

work and repeated later transitions between work and education and training are highlighted. Several of these issues can be, and in many instances are being, addressed within the present policy framework of many countries.

Embracing **lifewide learning** carries far-reaching consequences for public policy. The essentials of educational services must be reconsidered, and increased value must be allocated to learning events and opportunities outside the formal education system. The issue of lifewide learning raises certain questions: Does a co-ordinated policy exist between sectors? What role should the different segments of the system – e.g. popular adult education – play? And in connection with this issue, how efficiently are resources used? Is there a mechanism for co-ordination between ministries with responsibilities for different segments of lifelong learning? A central question concerns the mechanisms to recognize and value the learning that has taken place outside the formal system. If taken seriously, the lifelong and lifewide aspects constitute major challenges for the present public policy framework. However, nothing is more daunting than the full consequences of embracing a complete shift in thinking from a preoccupation with education to developing coherent strategies for learning over the lifespan.

Three basic categories of settings where purposeful learning activity takes place are commonly put forth within the framework of lifelong learning policy documents. Policy documents such as those of the European Commission (2000; 2001) describe the three learning settings as follows:

- **Formal learning**: learning that typically takes place in an education or training institution, is structured (in terms of learning objectives, learning time or learning support) and leads to certification. Formal learning is intentional from the learner's perspective.
- **Non-formal learning**: learning that is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning may be provided in the workplace and through the activities of civil society organizations and groups. It can also

be provided by organizations or through services that have been set up to complement formal systems, e.g. arts, music and sports classes. Non-formal learning is intentional from the learner's perspective.

- **Informal learning**: learning that results from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional, but in most cases it is non-intentional (or 'incidental'/random).

While policy documents overwhelmingly subscribe to definitions of adult learning that broadly correspond to those presented by the European Commission's policy documents, the scholarly literature contains many different and competing definitions, and questions the advisability of trying to seek clear definitional distinctions between the three concepts (Colley, Hodkinson and Malcolm, 2002). Finally, from both a research and a policy perspective, situating outcomes of adult learning in the broader context of lifelong learning raises issues about the substitution and complementarity of various forms of adult learning over the lifespan and calls for measures that allow comparisons across formal, non-formal and informal learning settings.

The field of adult learning

AET, which encompasses the many structured forms of adult learning, consists of several distinguishable sectors. The following represent some of the main sectors:

- continuing technical and vocational education and training (CTVET);
- remedial adult education;
- adult higher education; and
- popular/liberal adult education.

Initially, the purpose of continuing education was to bring professionals' competence up to date and more generally to provide professional development over the course of a career (Husén, 1999: 34). There is also a closely related set of learning activities aimed at tradespeople and technicians, such as apprenticeships,

which are known as vocational education. Often the former is associated with formal settings, whereas the latter is associated with on-the-job training that is combined with aspects of formal education in an intermittent and progressive way. The distinctions do not necessarily hold, however, and nowadays these learning activities are often collectively referred to as continuing technical and vocational education and training (CTVET). Another set of activities that may be, but is not necessarily, included among these consists of staff training and human resource development efforts at the enterprise level. An important distinction is that while the latter tends to be private, the former can be associated with sophisticated systems that are publicly supported and designed to build national industries. The main policy rationale is to develop competencies and competitiveness.

A different sector involves adult learning that has a remedial purpose. For example, in many countries the formal education system contains special adult education classes and/or schools that fulfil a remedial function by offering the equivalent of a secondary education or some other type of general upgrade such as basic literacy and language classes. These can be an organizational part of the school system, as in the Nordic countries, or can be situated within the community college system, as in Canada or the United States. Often these programmes or courses are connected to special public policy initiatives. The main policy rationale here is to develop employability, citizenship and inclusiveness. Higher education systems are also increasingly playing a role in AET. More and more adult students are enrolled in regular higher education programmes or other special continuing education arrangements that take place in higher education settings. In general, government policies are less well developed for adult higher education than for remedial education. The former tends to be more dependent on institutional initiatives that make higher education attractive to adult students.

Another distinct sector involves popular or liberal adult education. This includes folk high schools and adult education associations, which are a vital part of the adult education sector in some countries, particularly the Nordic countries. In these countries it is free and voluntary; despite considerable state and municipal

subsidies. It lies at the crossroads between civil society and the state, and has three major roles: to act as an agency of popular movements, to educate adults, and to support culture. Typically, there are no career-oriented purposes associated with these activities; the aim is simply to provide the participants with greater insight, and participation is considered an embodiment of democracy. In many parts of the world, popular adult education, while less structured than in the Nordic countries and lacking state subsidy, plays an important role in the life of various social movements.

During the last quarter of the twentieth century, AET overwhelmingly became linked to the world of work. This was reflected in a shift from a passive to an active labour market strategy in which government-initiated labour market programmes became central public policy instruments. However, the most dramatic shift occurred in the private sector's involvement in AET. Nowadays, employer-financed educational activities are central to a strategy of lifelong learning (OECD and Statistics Canada, 2000; 2005). Consequently, private strategies have become as important as public policy in structuring the field of adult learning.

Defining what counts as adult learning

UNESCO defines adult education as organized, structured programmes of education adapted to the needs of persons aged 15 years and older who are not in the regular school or university system. This definition excludes students who are still involved in their first or initial cycle of education. However, it has become increasingly difficult to maintain this definition and separate adult learners from first-time students attending regular school or university. The traditional pattern of study has changed, and with an increasing number of students moving in and out of the education system and the labour market, it is difficult to identify who is in the first cycle of studies and who is a recurrent learner. While recognizing the problems with defining an adult learner, various pragmatic solutions are being sought. So, for example, recent studies like the International Adult Literacy Survey (IALS) and the Adult Literacy and Lifeskills (ALL) Survey (OECD and Statistics Canada, 2005) allow for the exclusion of all regular, full-time students, except the following: full-time students subsidized by employers; full-time

students over 19 years of age enrolled in elementary or secondary programmes; and full-time students older than 24 years who are enrolled in post-secondary programmes.

Planning, policy and decision-making in adult learning

The OECD's Thematic Reviews of Adult Learning (TRAL) policies and practices in 17 member countries reveal the complexity of the policy field (OECD, 2005). There is frequently inadequate co-ordination between the different players involved – several levels of government, many ministries, the private sector, non-governmental organizations (NGOs) and educational providers. This results in a fragmented system that is difficult to understand, not only for the adult learner but also for policy- and decision-makers in the field of adult learning. The OECD notes the lack of co-ordination between the different partners involved and the few links between the adult education sector and other policies such as regional development or social welfare.

The wide applicability and relevance of adult learning to multiple contexts (lifewide) over the lifespan (lifelong) make it a particularly challenging and difficult sector to pinpoint and hence conduct effective planning, not to mention accountable and coherent policy-making. For example, adult learning can be equally relevant to a number of policy arenas, particularly those relating to education, social and labour market policies, as well as to the public and private sectors. Rarely can (does) one ministry assume complete accountability for adult education systems or, more broadly, lifelong learning systems, including their design, implementation, management and overall guidance. An important aim of research is to allow for a better understanding of the impact that different governance structures at the intersection of education, social and labour market policies have on the agenda and strategies for adult learning.

Before proceeding, it is useful to make a distinction between policies that address the supply of learning opportunities and the design of learning systems on the one hand, and policies that address the demand for learning opportunities, including the extent and distribution of participation and non-participation, on the other. For example, an important aim relevant to both research and policy is to

understand better the outcomes of different adult learning strategies in terms of (a) the supply of adult learning opportunities; (b) the patterns of participation and non-participation in the population across regions and generations and according to gender, ethnicity, socio-economic background and ability; and (c) the interactions between the supply of and demand for adult learning.

Brief overview on availability of comparative data and evidence

The status of the information base and research and development platform supporting research and policy

Since the early 1990s, there has been an apparent shift in emphasis toward implementation of lifelong learning policies and practices. This has augmented the information needs of governments and policy-makers (Tuijnman, 1999), including a more systematic account of the impact of adult education as well as evaluation studies of the success or failure of particular policies and programmes. But at the risk of being overly pessimistic, the information base remains poor and underdeveloped. There is a lack of consistent data for judging relevant trends, which in turn hinders the proper evaluation of policies and practices. In a summary of the proceedings of an international symposium on lifelong learning policy and research, Schuller (1999) states that there is a need to develop further repeated research that will over time build up an accurate picture of the situation.

Ideally, this would involve longitudinal data on adult learning. Existing comparative data on AET are based on cross-sectional research designs, and only refer at best to the learning activities occurring in the 12 months preceding the survey. While useful for providing a picture of the extent and distribution of adult learning, it is not ideal for understanding the factors that are relevant for competence formation and the impact of learning on personal, social and economic development. Research would be much more telling and complete if it included a record of individuals' education and learning throughout their lifetime. In particular, there is a need for information on the cumulative and interactive effects of learning in multiple contexts over the lifespan. This may only be

achievable with longitudinal research designs that include aspects of both quantitative and qualitative information. Furthermore, the comparative information base not only needs individual-level data on the take up of adult learning, but also system-level data on the structural features of adult learning opportunities. This is necessary in order to assess cross-country variations in outcomes in relation to policy initiatives and other contextual factors.

A more recent report by the OECD (2005) reiterates these needs. The report goes further by suggesting that even if there were a good information base, there is a lack of an adequate infrastructure in most, if not all, countries to use the relevant information to develop evidence-based policies. Presumably this refers to the absence of a coherent framework of reference for co-ordinating policy among the many players involved.

A short list of comparative data supporting research and policy

As mentioned, international comparative data on adult learning is rare. But over the last decade, a number of initiatives have come to provide both national and international data on participation in AET, its provision, and some of the individual characteristics as well as motivating factors that in part explain the observed variations in participation (OECD, 2003*a*: 225-226; OECD, 1999: 140). Relevant and available data sources are summarized in *Table 1.1*. The new initiatives and progress in gathering harmonized data are primarily observed at the OECD and European Community levels. Furthermore, the data sources provide information at the individual level only. Few efforts have been made to gather harmonized data on AET at the system level. The OECD's TRAL is one of the first attempts to analyze country-specific contexts, such as system-level features in relation to outcome data on adult learning, in a comparative manner.

It is important to note that differences among the studies listed in *Table 1.1* make comparisons of data across surveys challenging, as, among other reasons, the definition of adult education varies across surveys. For example, some surveys focus on job-related adult education (i.e. continuing and vocational training), while others pick up a broader notion of adult learning, including adult

popular education and personal interest or leisure-related adult learning. Moreover, the reference period and population covered can vary. The following summarizes salient differences across surveys:

Types of AET activities covered

AET data sources are typically based on different definitions of AET activities. While most studies cover primarily formal AET provision, some also include non-formal as well as informal learning activities, despite the fact that the country concept of these latter activities may differ significantly and may be also interpreted differently at the individual level.

Reference period

Some surveys use a twelve-month reference period (such as IALS), while others use a four-week period (such as the European Union Labour Force Survey (ELFS)).

Population coverage

Typically, efforts are made to cover the adult population aged 16 to 65 (e.g. IALS). This may include adults who are still in initial formal education. An attempt to exclude those adults is found in TRAL, which takes into consideration only adults having returned to education after having left the initial system. Adults over 65 are generally excluded, despite the phenomenon of ageing populations that affects most OECD countries.

Given these difficulties, the 1994-1998 IALS dataset is one of the most complete of all the surveys undertaken. This is because it contains the most detailed comparable information from surveys administered in 18 OECD countries. For this reason, the analysis in *Chapter II* relies primarily on the IALS data, but other data sources are also used, especially to cover issues that were not covered in IALS. For example, the 2003 ALL Survey – the successor survey to IALS but which included fewer participating countries – offers the opportunity to cover informal learning activities, and the 2003 Eurobarometer data on lifelong learning covers the motivations for participating in adult learning in a more comprehensive manner than IALS or ALL.

Table 1.1 Surveys providing harmonized AET data

Title	Year and country coverage	Type of data, sample size and population coverage	Nature of survey including degree of harmonization	Types of learning covered
OECD countries				
The International Adult Literacy Survey (IALS)	1st ed.: 1994. 9 OECD countries. 2nd ed.: 1996. 5 OECD countries. 3rd ed.: 1998. 7 OECD countries/ regions, 2 non-OECD countries.	Cross-sectional, individual level microdata, nationally representative of adults aged 16 to 65, large sample sizes (3,000-6,000 per country). Some countries included sub-regionally representative samples.	Household survey combined with direct assessment of literacy and numeracy skills. Administered common background questionnaire and tests for directly assessing skills.	Any training or education undertaken over the 12 months preceding the interview, including courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses, or any other training or education.
The Adult Literacy and Lifeskills Survey (ALL)	1st ed.: 2003. 6 OECD countries, 1 non-OECD country. 2nd ed.: In progress.	Cross-sectional, individual level microdata, nationally representative of adults aged 16 to 65, large sample sizes (3,000-6,000 per country). In Canada, the sample included adults over the age of 65. Some countries included sub-regionally representative sample.	Household survey combined with direct assessment of literacy, numeracy and problem-solving skills. Administered common background questionnaire and tests for directly assessing skills. Most of the data is comparable to IALS and allows for analysis of change over time for countries who participated in both surveys.	Any education or training undertaken over the 12 months preceding the interview, including programmes, courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses, or any other training or education. Also covers a range of informal learning activities.

Thematic Review on Adult Learning (TRAL)	1st ed.: 1999-2000. 9 OECD countries. 2nd ed.: 2003-2004. 9 OECD countries.	National analysis and cross-country comparisons.	Countries responded to a common questionnaire, but sources vary according to country and are not homogeneous.	All education and training undertaken for professional or personal reasons, including general, vocational and enterprise-based training provided by the public and the private sectors, education institutions, firms, commercial organizations, NGOs and other community organizations.
The Programme for the International Assessment for Adult Competencies (PIAAC)	In development. 1st ed. expected in: 2009. 2nd ed. expected in: 2014. 3rd ed. expected in: 2019. OECD countries (decisions to participate are pending).	In development. Intended to be successor survey to IALS and ALL, therefore likely to be similar to those surveys.	In development. Intended to be successor survey to IALS and ALL, therefore likely to be similar to those surveys.	In development. Intended to be successor survey to IALS and ALL, therefore likely to be similar to those surveys.
European countries				
The European Labour Force Survey (ELFS)	Recurrent on annual basis. EU-25.	Cross-sectional, individual level microdata, nationally representative of adult populations aged 15 and over, large sample sizes.	Household survey based on national labour-force surveys using common standards but allowing variation in ways questions are posed. National data are mapped into a common file structure by EUROSTAT.	Any education and training undertaken over the 4 weeks preceding the interview (except for 3 countries: Switzerland, Portugal and Sweden) be it relevant or not for professional reasons, including initial education, further education, further or continuing training, training within the company.

Ad hoc module on lifelong learning in the ELFS.	Ed.: 2003. EU-25.	Cross-sectional, individual level microdata, nationally representative of adult populations aged 15 and over, large sample sizes.	Household survey based on national labour force surveys where an ad hoc module on lifelong learning was included using a common questionnaire but allowed for optional questions at national level. National data are mapped into a common file structure by EUROSTAT.	Any education and training undertaken over the 12 months preceding the interview which took place both in and outside the regular education system. Supplementary questions refer to informal learning activities such as reading books, computer-based learning, using educational broadcast material (tapes etc.) and visiting institutions such as libraries or learning centres.
EU Adult Education and Training Survey (EU-AES)	In development (expected in 2006-2007). EU-25.	Cross-sectional, individual level microdata, nationally representative of adult populations aged 25 to 64.	Household survey including indirect assessment of ICT and language skills, using a common questionnaire.	Any learning activities undertaken over the 12 months preceding the interview, including formal education, non-formal education and informal learning.
Continuing Vocational Training Survey (CVTS)	1st ed.: 1994. EU-12. 2nd ed.: 1999. EU-15 and 9 candidate countries plus Norway.	Cross-sectional, enterprise level microdata, nationally representative of enterprises with more then 10 employees, large sample size.	Employer-based survey using a common questionnaire.	Any training programmes (course and seminars) undertaken over the 12 months preceding the survey that has been designed and carried out by the enterprise itself or by organizations external to the enterprise. Additional questions refer to other forms of continuing training in enterprises (e.g. conferences, workshops, seminars, etc.).

The Third European Survey on Working Conditions (ESWC)	1st ed.: 2000. EU-15.	Cross-sectional, individual level microdata, medium sample size (1,500 workers aged 15 and over with the exception of Luxembourg, where only 527 workers were interviewed).	Household survey using a common questionnaire. The variation in the industrial structure, as well as the sectoral distribution of the workforce in different countries, effects comparisons between countries.	Contains information about employer-sponsored training (self-financed if the worker is self-employed) taken over the 12 months preceding the interview.
EU Eurobarometer on lifelong learning	1st ed.: 2003. EU-15 plus Iceland and Norway.	Cross-sectional, individual level microdata, medium sample size (1,000 individuals aged 15 and upward).	Opinion poll survey.	Any studies or training undertaken over the 12 months preceding the interview for professional or personal reasons. Additional questions refer to learning preferences in terms of setting, method, social context and future participation intentions.
Developing countries				
The UNESCO Institute for Statistics (UIS) Literacy Assessment and Monitoring Programme (LAMP)	In development. Target is non-OECD countries.	Cross-sectional, individual level microdata, nationally representative of adults aged 16 to 65, large sample size (3,000-5,000 per country).	Household survey combined with direct assessment of literacy, numeracy and problem-solving skills using a common questionnaire. Common background questionnaire and tests for directly assessing skills are planned.	

The information base in developing and middle-income countries

As can be seen in *Table 1.1*, the available data sources on AET tend not to include developing or middle-income countries. The Literacy Assessment and Monitoring Programme (LAMP), which is currently under development by the UNESCO Institute for Statistics (UIS), is the only effort listed in *Table 1.1* that targets non-OECD countries. This is surprising as AET plays a major role in developing countries, especially since the work undertaken by UNESCO. For example, by 1967 UNESCO had launched an Experimental World Literacy Programme that targeted individuals who either did not attend school or had left before acquiring basic literacy skills. Furthermore, the 1972 UNESCO Edgar Faure Commission on *Learning to be* outlined the value of lifelong learning. The primary impetus was to combat poverty. A myriad of similar AET programmes have been developed by other international and bilateral organizations over the last few decades. Despite the numerous activities related to AET programmes, there is little documented and available information that could provide an overview of participation in AET, much less a comparative overview. Oxenham, Diallo, Katahoire, Petkova-Mwangi and Sall (2002: 13) assert that, even by 2002, "… very few project completion reports were available, nor were there many evaluations, much less impact evaluations". The lack of data may also reflect the fact that despite a long history of policy declarations that promote a two-pronged attack on illiteracy focusing simultaneously on children and adults, the latter have not been given sufficient attention (Jele, 2005).

In recent years, some international bodies have expressed concern about the dearth of data available on education, including in some cases adult education. Accordingly, a number of recent initiatives have aimed at supporting efforts to collect reliable statistical data regarding education. Comparative data is preferred for several reasons. First, assessing cross-country differences in the extent and distribution of AET, and relating these to economic, social, policy and other contextual conditions, permits policy-makers to assess the comparative strengths and weaknesses in the country's past, current and prospective efforts. Second, because cross-country variation in policies and institutional settings is greater than intra-

country variation, a comparative information base can in principle provide more policy-relevant data and analysis than a compilation of national assessments that are not comparable.

The following describes some related efforts made by the World Bank, UNICEF and UNESCO. Among the first of these efforts, the World Bank developed the Living Standards Measurement Study (LSMS) guidelines in 1980. The purpose of the guidelines was to help national statistical offices to improve the data collected through household surveys. It was also an effort aimed at supporting developing countries to gather reliable data necessary for assessing and understanding poverty. Among the first countries to implement these guidelines were Côte d'Ivoire in 1985 and Peru in 1985/1986. Nowadays, LSMS-based surveys provide statistical data for more than 30 countries, including reliable information on educational attainment and school attendance. But due to substantial variation in country-specific implementations of the LSMS guidelines, the data offer a limited basis for international comparisons. Furthermore, data on adult education are collected only in a small number of countries, and mainly at the community level. This is the case, for example, in Pakistan (the Pakistan Integrated Household Survey of 1991) and Vietnam (the Household Living Standard Survey of 1997/1998), where the community-level questionnaire included a module on access to adult education centres and programmes and enrolment rates (see www.worldbank.org/lsms).

In 1995, UNICEF developed the Multiple Indicators Cluster Survey (MICS). This is a household survey programme aimed at helping developing countries to fill in the data gaps necessary to monitor the situation of children and women. The survey consists of three questionnaires: one at the household level, one for women aged 15 to 49, and one for children under the age of five. The first round of MICS was conducted in 1995 in more than 60 countries. A second round was conducted in 2000 in about 65 countries. A current round of MICS is being carried out in more than 50 countries. The MICS offers, for the first time, comparable data on educational attainment and school attendance in developing countries. But unfortunately it does not include an adult education module, although in principle this would be possible (see www.childinfo.org).

The abovementioned efforts have provided reliable information for other international organizations, including, for example, the global literacy statistics published by UIS. But the variety of data sources, as well as variations in survey procedures, implies that the overall comparability is questionable. More importantly, the information is difficult to interpret in some cases. Accordingly, current efforts do not appear to meet the needs of national and international users of reliable and comparative data. To overcome this limitation, the UIS is currently developing a new literacy assessment methodology and household-level data collection instrument named LAMP. While still in development, LAMP aims to collect comparable information on AET.

II. Comparative overview of adult learning patterns

Patterns of participation in adult learning

In this section, an overview of the extent of adult learning in an international comparative perspective will be presented and some measurement issues in international comparative studies discussed. Consideration is given to different types of participation, such as in programmes and courses, and participation for job- and non-job-related reasons. Evidence on changes in participation rates between IALS (1994-1998) and ALL (2003) is reviewed critically. Finally, patterns of engagement in informal learning are also presented.

Patterns of overall participation in organized forms of adult learning

The total adult learning effort varies substantially across countries.

Patterns of engagement in organized forms of adult learning are typically summarized by the incidence, duration and prevalence of participation in AET. 'Incidence' refers to the proportion of adults participating (participation rate), whereas 'duration' informs of the time spent participating (hours per participant). 'Prevalence' indicates how widespread participation is among populations (participation rate x mean hours per participant). Specifically, the latter provides a comprehensive measure of the overall organized adult learning effort of the country in question (mean hours of participation per adult). It can be seen from existing data that the total effort varies substantially across countries.

While AET is common, it is far from universal.

While AET is a common activity in many countries, it is far from universal. Varied findings on overall participation rates for populations aged 16 to 65 indicate that countries fall into four broad groups (see *Tables 2.1A* to *C*). Even though data sources vary and strict comparability is not possible, the country groupings that follow are fairly consistent:

- A small group of countries have overall participation rates that are consistently **close to or exceed 50 per cent**. The Nordic countries, including Denmark, Finland, Iceland, Norway and Sweden, are among this group. This is consistent with the fact that these countries share a strong cultural tradition of supporting adult learning, and also that they have large publicly-funded sectors of adult popular education.
- Countries of Anglo-Saxon origin, including Australia, Canada, New Zealand, the United Kingdom and the United States, have overall participation rates that fall into the **35 to 50 per cent range**. A few of the smaller northern European countries, including Luxembourg, the Netherlands and Switzerland, are also among this group. When compared to those of IALS, the ALL data indicate that Canada, Switzerland and the United States have increased overall participation rates, reaching close to or over 50 per cent. But the comparability of the rates between IALS and ALL is contentious, as is the comparability across any of the data sources reported in *Table 2.1*.
- The next group has overall participation rates of between **20 and 35 per cent**. It features the remainder of the northern European countries, including Austria, Belgium (Flanders) and Germany. Also among this group are some eastern European countries, namely the Czech Republic, Slovenia, and some southern European countries including France, Italy and Spain.
- Finally, there is a group of countries with overall participation rates in adult learning consistently **below 20 per cent**. These include the remaining southern European countries, namely Greece and Portugal, as well as some additional eastern European countries, i.e. Hungary and Poland. Chile, the only South American country where comparable data are available, is also in this group.

A more comprehensive measure of AET activity includes the time spent learning.

Turning to a more comprehensive measure of the adult learning effort, namely the mean number of AET hours per adult, which combines the incidence and volume of adult learning, provides further insight. Countries that have a high participation rate in adult learning for extended periods of time display high levels of

adult learning per adult. According to the IALS data in *Table 2.1A*, Denmark, Finland and New Zealand report an average of over 100 hours of AET per adult over a twelve-month period – this is equivalent to every adult aged 16 to 65 spending over two-and-a-half working weeks per year participating in AET.

Some countries follow an intensive model of provision while others follow an extensive model.

Otherwise, countries that feature high participation but a low average volume display comparatively lower AET participation per capita. By extension, countries with low participation rates and high volume may exhibit comparatively high AET per capita. For example, it can be inferred from the IALS data presented in *Table 2.1A* that Switzerland, the United Kingdom and the United States have participation rates around 35 to 50 per cent, but after adjusting for their comparatively low volume, countries in the 20 to 35 per cent range, such as Ireland and Slovenia, surpass them in their total adult learning effort. The former are considered to follow an extensive AET model, in which a fairly low volume of AET is provided to a large number of adults. In contrast, the latter are considered to follow an intensive AET model, where provision of AET is concentrated on a small number people (OECD, 1999; 2003*a*).

Table 2.1 Participation in adult education and training and average number of hours of participation in the previous year, by type of training, population aged 16-51

A. International Adult Literacy Survey (IALS), 1994-1998

	Total AET			Job-related AET			Non-job-related AET		
	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult
Australia	36.4	179.4	65.4	31.2	165.4	51.6	8.2	229.5	18.8
Belgium (Flanders)	20.9	125.4	26.2	12.5	103.7	13.0	8.1	90.7	7.3
Canada	36.9	230.8	85.2	30.0	236.1	70.9	9.9	179.9	17.8
Chile	19.5	235.7	45.9	11.2	157.0	17.5	9.2	330.1	30.3
Czech Republic	26.4	23.4	6.2	19.8	45.5	9.0	8.0	83.2	6.6
Denmark	56.9	219.3	124.7	48.6	213.6	103.9	13.0	148.5	19.2
Finland	58.4	207.8	121.3	39.6	205.5	81.3	28.6	195.9	55.9
Hungary	19.8	177.4	35.2	13.3	156.5	20.7	7.3	153.6	11.2
Ireland	23.5	262.1	61.6	17.3	262.1	45.3	6.8	98.3	6.7
Italy	22.6	192.8	43.5	16.1	133.6	21.5	7.9	282.6	22.4
Netherlands	37.9	239.8	91.0	24.9	266.0	66.3	16.7	176.8	29.6
New Zealand	47.9	222.9	106.7	39.4	223.2	87.9	12.8	176.9	22.6
Norway	47.0	190.3	89.4	42.7	167.5	71.4	6.7	322.3	21.7

Poland	14.7	151.3	22.3	9.7	119.6	11.6	5.5	165.0	9.0
Portugal	14.2	--	--	--	--	--	--	--	--
Slovenia	33.6	201.9	67.8	25.3	172.9	43.8	11.1	216.6	23.9
Sweden	50.8	--	--	--	--	--	--	--	--
Switzerland	42.1	134.7	56.7	26.6	139.9	37.3	19.7	111.2	21.9
United Kingdom	45.0	157.0	70.6	39.6	140.9	55.9	9.8	162.8	15.9
United States	40.7	131.1	53.3	36.4	128.3	46.6	6.3	114.6	7.3

Notes:
1. Adults aged 16 to 19 participating in full-time studies (4 or more days per week) toward ISCED 0-3, and who are not financially supported by an employer or union are exluded. Similarly, adults aged 16 to 24 in full-time studies (4 or more days per week) toward ISCED 4-7, and who are not financially supported by an employer or union are excluded.
2. Sweden and Portugal did not ask about job-related and non-job-related training in a comparable way, nor did they ask about training durations. Germany is excluded because the survey did not ask about adult education and training in a comparable way.
3. Mean number of hours per adult = Mean number of hours per participant x participation rate/100.
4. During the past 12 months; that is since …, did you receive any training or education including courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses or any other training or education?
-- indicates that data are not available.

Source: IALS, 1994-1998.

Table 2.1 (continued)

B. Adult Literacy and Lifeskills Survey (ALLS), 2003

	Total AET	AET in programmes and courses			AET in programmes			AET in courses			AET in other
	Participation rate	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate
Bermuda	47.0	35.8	291.0	104.2	18.0	506.7	91.3	22.1	60.3	13.3	11.2
Canada	49.3	37.1	291.4	108.0	15.8	595.2	93.9	24.9	63.4	15.8	12.2
Italy	19.0	15.3	456.0	69.7	7.4	915.7	67.5	9.2	102.8	9.4	3.7
Norway	53.3	46.1	412.5	190.0	20.7	895.3	185.5	30.9	48.3	14.9	7.2
Switzerland	56.9	48.7	298.9	145.7	19.5	640.2	124.8	40.4	61.2	24.7	8.2
United States	54.6	37.7	332.3	125.3	19.9	574.1	114.1	21.0	65.1	13.7	16.9

	Job-related AET in programmes and courses			Job-related AET in programmes			Job-related AET in courses		
	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult
Bermuda	28.0	289.9	81.3	14.6	515.7	75.2	15.4	43.1	6.6
Canada	30.6	292.5	89.4	13.5	610.7	82.3	19.1	39.1	7.5
Italy	10.9	402.2	43.7	4.6	920.9	42.3	6.9	61.5	4.2
Norway	37.6	396.7	149.1	16.8	878.6	147.2	24.6	36.4	8.9
Switzerland	33.4	330.4	110.2	15.3	649.9	99.6	21.9	46.2	10.1
United States	31.2	317.9	99.3	16.5	567.1	93.7	16.2	38.3	6.2

	Non-job-related AET in programmes and courses			Non-job-related AET in programmes			Non-job-related AET in courses		
	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult	Participation rate	Mean number of hours per participant	Mean number of hours per adult
Bermuda	9.2	218.2	20.0	3.3	458.1	14.9	6.5	85.7	5.5
Canada	7.6	217.9	16.5	2.2	525.2	11.6	5.7	86.5	4.9
Italy	3.8	503.9	19.4	2.3	886.6	20.1	1.8	85.6	1.5
Norway	8.9	430.4	38.5	3.9	977.1	37.8	5.7	47.2	2.7
Switzerland	11.8	118.6	14.0	1.9	513.5	9.6	10.3	45.4	4.7
United States	6.7	284.6	19.2	2.8	598.9	16.7	4.2	65.1	2.8

Notes:

1. Adults aged 16 to 19 participating in full-time studies (4 or more days per week) toward ISCED 0-3, and who are not financially supported by an employer or union are excluded. Similarly, adults aged 16 to 24 in full-time studies (4 or more days per week) toward ISCED 4-7, and who are not financially supported by an employer or union are excluded.
2. The total number of hours per participant is limited to 2080 hours, which is considered maximum full-time studies for an individual per year (i.e. 52 weeks x 40 hours).
3. During the last 12 months ... did you take any education or training? This education or training would include programmes, courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses, or any other training or education.
4. During the last 12 months, that is from … to ..., did you take any courses as part of a 'programme of studies' toward a certificate, diploma or degree? Examples would include …
5. During the last 12 months, did you particpate in any courses that were NOT part of YOUR 'programme of studies'?

Source: ALL Survey, 2003.

Table 2.1 (continued)

C. EU Barometer, 2003

	Total AET	Job-related AET	Non-job-related AET
	Participation rate		
Austria	39.3	26.0	29.9
Belgium	31.5	22.4	25.4
Denmark	58.5	45.8	50.8
Finland	55.9	36.2	48.2
France	22.8	11.8	20.4
Germany	35.0	18.9	31.8
Greece	16.7	9.8	15.5
Iceland	69.1	56.4	64.2
Ireland	33.6	24.1	27.4
Italy	25.3	17.0	21.5
Luxembourg	38.1	25.0	31.9
Netherlands	41.0	26.8	33.7
Norway	46.0	36.7	39.8
Portugal	12.7	5.7	11.2
Spain	26.5	16.9	22.1
Sweden	53.5	38.5	45.4
United Kingdom	41.4	26.1	35.5

Notes:

1. Have you done any studies or training in the past 12 months? Please choose the three answers that best describe your own situation: Yes, to meet new people; yes, to be less likely to lose my job/forced into retirement; yes, to better enjoy my free time/retirement; yes, to be able to do my job better; yes, to obtain a certificate, diploma or qualification; yes, to be able to take on greater responsibilities/increase my chances of promotion; yes, to better manage my everyday life; yes, to change the type of work I do altogether, including starting my own business (for retraining, etc.); yes, to achieve greater personal satisfaction; yes, to get a job; yes, to improve my chance of getting another job, including one which would suit me more; yes, to increase my general knowledge; yes, for other reasons (spontaneous); no, I have not, but I would like to; no, I am not particularly interested; no, for other reasons (spontaneous); I don't know.

Source: EU Barometer, 2003.

Participation in adult learning for job- versus non-job-related reasons

People engage in learning for different reasons.

Individual reasons for engaging in adult learning are varied. Generally, they are closely related to one's own life situation and interaction with the external environment. For example, learning for job-related reasons can be linked to goals of finding a job, finding a better job, being promoted at work, keeping a job and/or becoming more efficient in one's current job. Non-job-related reasons include learning for personal- and social-related reasons. Learning for personal reasons can be linked to goals of personal development, personal satisfaction, better management of daily life, greater enjoyment during one's free time, and increased general level of knowledge. Learning for social-related reasons can be linked to goals of meeting new people, engaging in the community, active citizenship and democratic values. This is elaborated further in the section on *Life situation, readiness and barriers factor* on page 94. Here, the emphasis is on portraying patterns of participation in adult learning taken for job- and non-job-related reasons.

Most adults participate in AET for job-related reasons.

For most adults aged 16 to 65, the world of work is a substantial part of daily life. Thus it is not surprising that according to most surveys, the majority of adults participate in adult learning for job-related reasons (OECD, 2003*a*). Nonetheless, participation for personal and social-related reasons also plays an important role, and depending on the country these can form a substantial component of overall participation rates in adult learning.

But the distinction between job and non-job reasons is not so clear.

The divide between job- and non-job-related reasons, however, is not so clear cut (Courtney, 1992: 50). Rubenson (2001) demonstrates that the true underlying reasons for participation in a single occurrence are many and are often interrelated. For example, training to develop information and communication technology (ICT) skills can equally be for personal, social and/or job-related reasons. Furthermore, training for one reason does not preclude the relevance of what is learned for other purposes. Despite these

complexities, most surveys are concerned with job-related adult learning, and so the questions tend to relate specifically to those types of opportunities and motives.

The focus of the research and the survey's design have implications on the interpretation of why people participate.

The purpose and design of a survey affect how the results are interpreted, which will differ significantly depending on the source. For example, the IALS design does not reflect the complexity described above; rather the questions are designed around a simplistic division. The survey asked only for the **main reason** for participating and offered the choice of 'career- or job-related purposes', 'personal interest' or 'other'. Additionally, it collected information on reasons for participating in up to three different provisions over the last 12 months, so it is possible that respondents participated in multiple adult learning occurrences each for the **main reason**, that is either job- or non-job-related, and therefore the participation rates for the two types of training combined typically exceed the overall participation rate (see *Table 2.1A*). The ALL design is different – only the **main reason** for participating in the **most intensive** course over the last 12 months is provided.[1]

Findings from IALS show the dominance of job-related reasons as the main motive.

The dominance of job-related reasons as the main motive for participating in adult learning can be seen from the IALS data reported in *Table 2.1A*. In all countries, the participation rate for job-related reasons is higher than for non-job-related reasons; almost six times higher in the United States and over three times higher in Australia, Canada, Denmark, New Zealand, Norway and the United Kingdom. In contrast, Finland, the Netherlands and Switzerland displayed comparatively high rates of participation for non-job-related reasons.

1. ALL also made a distinction between programmes and courses, which IALS did not.

Findings from Eurobarometer complement by showing the interrelatedness of motives.

The Eurobarometer data presented in *Table 2.1C* reveal a completely different pattern. This survey design allowed respondents to specify up to three reasons for participating, but without any specification as to their order of importance. In all countries, the participation rate for non-job-related reasons was higher than for job-related reasons. This confirms that although the primary dominant motive for participating in adult learning was job-related, a majority of adults also engaged for other reasons which were interrelated. Ideally, international comparative studies should allow respondents to state multiple reasons (perhaps up to three), but also ask them to rank them according to importance.

Participation in alternative post-compulsory learning pathways

It is difficult to distinguish AET activity from other post-compulsory learning activity.

By the age of 16, youths are typically faced with alternative choices concerning their educational trajectories,[2] including different types of upper secondary, post-secondary and alternative learning pathways. A common distinction is whether participation in education and learning constitutes part of a programme of studies (i.e. a collection of courses) or if it is simply one single course. Furthermore, there are *other* types of education and learning occurrences, which people may or may not recognize as courses or a collection of courses, such as private lessons, workshops, on-the-job training, apprenticeship training, or any other education or training. The situation of individuals participating in these various activities is used to define what counts as AET. Other important factors that are used to determine what counts as AET include the intensity (i.e. part- or full-time), destination (i.e. type of credential) and institutional setting (i.e. formal or non-formal) of the education and learning occurrence as well as age. Youths also typically combine their choice of learning pathway with labour market experience

2. In countries where compulsory schooling consists of approximately nine years or less, the average (compulsory) school-leaving age is 16 or under.

and occupational trajectories, although the timing of this eventual occurrence varies substantially among populations within, as well as between, countries.

Decisions on who to include in AET activity have to be made and vary according to available information.

In *Table 2.1A-B*, participation in education and learning of full-time students aged 16 to 19 pursuing programmes that lead to credentials recognized as International Standard Classification of Education (ISCED) 1, 2 or 3 (i.e. primary, lower or upper secondary respectively) is not considered as AET. Similarly, participation in education and learning of full-time students aged 16 to 24 who are pursuing programmes that lead to credentials recognized as ISCED 4, 5 or 6 (i.e. post-secondary, non-tertiary or tertiary levels respectively) is not counted as AET. If the abovementioned participation is financially supported by an employer, a union or a professional association however, then it is counted as AET. Survey designs like IALS and ALL allow for this rather complicated definition to be accommodated. Alternatively, to avoid these complexities or to deal with missing information, findings on AET are often reported for populations aged 25 to 65, or, when possible, full-time students aged 16 to 24 are excluded from the analysis.

There can be substantial overlap between what is considered AET and higher education.

In *Table 2.2*, data are presented on participation in education and learning according to alternative learning pathways and age group. The data that are highlighted indicate the education and learning that is not included in the AET participation rate reported in *Table 2.1A-B* and in further analyses in this booklet using IALS and ALL data. Notice that pursuing programmes that lead to ISCED 1 to 6 on a part-time basis at any age is counted toward AET, even though these occur in formal institution settings and are usually considered as part of higher education. Additionally, notice that participation in education and learning of adults of 25 years or older who are pursuing formal programmes, whether full- or part-time, is counted as AET. This demonstrates the overlap between the definitions of what is considered AET and what is considered higher

education, and consequently some of the difficulties in establishing a clear definition of what counts as AET.

The extent of overlap can vary depending on the degree of openness of higher education to non-traditional students.

This problem is exacerbated by the fact that in many countries the overlap between AET and higher education has grown in recent years, partly as a result of opening up access to higher education, especially among older adults. This suggests that the degree to which higher education systems are open to 'non-traditional' students can play a significant role in explaining differences in AET among countries. For example, the ALL data indicate that in Canada, nearly 15 per cent of adults aged 25 to 65 who are in full-time higher education, and another 18 per cent of those in part-time higher education, are included in AET participation rates. In contrast, comparable estimates for Italy are about 10 and 7 per cent, respectively. By extension, countries with education systems that feature very limited permeability between different tracks and continue to maintain dead-end tracks, especially at lower levels of the system, are likely to have lower AET participation rates. This might be because AET itself is an important link to bridge alternative learning pathways and avoid dead ends in post-compulsory learning. Research is needed to understand the relationship between institutional features of formal education systems, such as the degree of stratification, the vocational specificity of pathways, and the extent and distribution of AET among different countries.

Changes in participation rates

It is difficult to obtain reliable data for comparative analyses over time.

In general, it is difficult to obtain reliable data by which to perform comparative analyses over time. Among other issues, one has to be certain that what is being measured remains the same throughout the process. While IALS and ALL were explicitly designed to allow for comparisons of literacy profiles over time (for countries participating in both surveys), there were changes to the background questionnaire, including the module on AET. While the questions used to derive overall participation rates in AET were nearly identical, there were slight variations, as is shown below.

Table 2.2 Participation in AET courses and other, by alternative post-compulsory schooling paths (destination and intensity) of participation in education and training programmes, cohorts aged 16 to 19, 20 to 24, 25 to 29 and 30 to 65, 2003

		16-19			20-24			25-29			30-65		
		Percentage of cohort in path	Participation rate in AET courses	Participation rate in AET other	Percentage of cohort in path	Participation rate in AET courses	Participation rate in AET other	Percentage of cohort in path	Participation rate in AET courses	Participation rate in AET other	Percentage of cohort in path	Participation rate in AET courses	Participation rate in AET other
Bermuda	Not in programme, ISCED 3 not completed	0.8		36.4	0.4			2.1	19.5		9.0	6.9	8.6
	Not in programme, ISCED 3 completed	11.6		8.6	28.2	13.5	9.9	26.6	8.8	4.7	29.9	14.5	10.0
	Not in programme, higher than ISCED 3 completed	4.4		22.4	22.6	34.2	17.1	41.7	30.3	24.5	45.6	30.1	16.6
	In programme, full-time toward ISCED 0-3	25.6	28.9		1.1			2.1			0.1	100.0	
	In programme, part-time toward ISCED 0-3	2.6			1.0						0.3		
	In programme, full-time toward ISCED 4-6	50.7	22.6		31.2	24.4		5.1	42.6		2.3	34.0	
	In programme, part-time toward ISCED 4-6	2.4			12.4	15.7		13.0	35.0		7.9	23.8	
	Other programme	1.9			3.2	25.8		9.4	23.7		4.9	15.9	
Canada	Not in programme, ISCED 3 not completed	20.3	4.6	17.0	8.1	14.9	17.6	8.0	21.7	11.2	17.6	9.0	6.6
	Not in programme, ISCED 3 completed	9.2	10.7	7.5	22.5	26.8	12.1	22.5	33.0	9.7	27.0	22.0	14.3
	Not in programme, higher than ISCED 3 completed	0.5	9.3	1.7	13.5	30.2	22.8	39.5	30.2	21.2	42.1	34.8	17.4

	In programme, full-time toward ISCED 0-3	45.5	23.6		2.5	6.3		0.6	0.2		0.1	6.5	
	In programme, part-time toward ISCED 0-3	2.6	19.4		1.9	37.1		0.3	1.5		0.2	6.2	
	In programme, full-time toward ISCED 4-6	19.7	26.6		41.2	24.0		12.2	20.9		2.5	22.4	
	In programme, part-time toward ISCED 4-6	1.2	34.1		7.1	32.8		12.3	21.4		5.9	28.7	
	Other programme	1.0	10.9		3.2	19.8		4.6	20.6		4.7	14.9	
Italy	Not in programme, ISCED 3 not completed	15.1	2.3	3.4	22.4	7.3	0.6	34.1	2.3	0.7	55.9	3.0	1.4
	Not in programme, ISCED 3 completed	5.4	5.6		35.4	7.1	5.1	37.6	7.3	6.1	31.8	15.4	6.5
	Not in programme, higher than ISCED 3 completed				1.6			6.9	15.0	10.6	8.7	24.5	11.0
	In programme, full-time toward ISCED 0-3	57.6	9.0		6.0	11.8		0.4	10.4		0.1	22.1	
	In programme, part-time toward ISCED 0-3	4.5	6.4		1.7			1.1	14.4		0.6	8.3	
	In programme, full-time toward ISCED 4-6	7.8	27.2		25.5	10.1		10.0	18.8		0.4	26.3	
	In programme, part-time toward ISCED 4-6	1.5	12.5		5.3	11.5		6.2	19.9		1.2	29.4	
	Other programme	8.2	7.8		2.0	13.1		3.7	17.5		1.4	19.7	
Norway	Not in programme, ISCED 3 not completed	11.3	24.2	17.9	1.6	18.3	2.4	4.3	28.1	2.1	14.2	18.6	6.9
	Not in programme, ISCED 3 completed	21.0	35.4	24.4	26.7	34.5	10.4	32.1	30.6	6.6	35.7	28.2	8.5
	Not in programme, higher than ISCED 3 completed	0.9	16.6		6.7	44.1	17.6	27.5	39.8	13.2	30.9	42.4	9.3
	In programme, full-time toward ISCED 0-3	47.4	18.5		5.9	8.7		0.5	45.5		0.5	2.1	

Table 2.2 (continued)

	In programme, part-time toward ISCED 0-3	1.1	43.1		1.0	15.4		1.5			0.8	38.0	
	In programme, full-time toward ISCED 4-6	10.8	44.5		45.0	22.8		14.7	32.3		2.7	16.6	
	In programme, part-time toward ISCED 4-6	1.4	49.5		4.3	56.3		6.5	35.1		4.4	29.9	
	Other programme	6.1	21.8		8.7	23.8		13.0	44.2		10.7	23.2	
Switzerland	Not in programme, ISCED 3 not completed	16.5	43.5	29.3	4.5	44.0		6.3	18.5		10.7	14.4	3.3
	Not in programme, ISCED 3 completed	5.5	12.5		33.5	43.7	8.9	41.5	31.4	18.1	52.5	39.8	9.7
	Not in programme, higher than ISCED 3 completed	0.1			0.9	78.9		16.0	60.7	5.3	21.2	55.9	11.4
	In programme, full-time toward ISCED 0-3	43.3	36.6		12.6	53.8		3.0			0.2	25.3	
	In programme, part-time toward ISCED 0-3	20.9	47.4		6.5	57.2		1.4			1.1	56.9	
	In programme, full-time toward ISCED 4-6	5.0	59.0		32.1	36.6		10.4	19.7		0.7	57.0	
	In programme, part-time toward ISCED 4-6	1.4	2.4		6.2	35.6		11.6	50.1		5.3	41.8	
	Other programme	7.4	48.8		3.7	17.0		9.8	49.1		8.4	34.8	
United States	Not in programme, ISCED 3 not completed	18.8	7.3	25.0	12.0	2.7	23.0	13.2	0.9	15.0	11.4	4.3	8.4
	Not in programme, ISCED 3 completed	12.0	11.3	16.9	33.7	11.4	26.0	30.7	17.0	23.1	39.9	17.9	20.2
	Not in programme, higher than ISCED 3 completed	0.7			6.9	34.9	41.5	21.7	34.9	24.9	31.1	39.3	25.0
	In programme, full-time toward ISCED 0-3	46.2	13.0		1.2	31.5		0.1			0.1		

In programme, part-time toward ISCED 0-3	2.6		1.0		0.2		0.5	9.4	
In programme, full-time toward ISCED 4-6	15.0	14.6	34.8	23.7	14.6	22.2	1.8	21.6	
In programme, part-time toward ISCED 4-6	1.8	8.5	5.5	15.9	9.8	25.1	4.3	16.8	
Other programme	2.9		5.0	3.9	9.7	13.6	10.9	14.8	

Notes:

Excluded from analysis, providing that an employer, union or professional association did not contribute towards the direct expenses of the programme; that is, expenses for tuition, course materials, travel accommodation and so forth.

Counted toward adult education and training participation rates, even though this could otherwise also be treated as participation in higher education.

Source: ALL Survey, 2003.

In IALS, all respondents were asked to answer the first question (F1) of Module F, which was entitled ***Adult education*** (see http: //www.statcan.ca/english/Dli/Data/Ftp/ials.htm):

> "The following questions will deal with any **education or training** which you may have taken in the past 12 months.
>
> During the past 12 months, that is, since …, did you receive any training or education, including courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses or any other training or education? (yes/no)".

Similarly, in ALL, all respondents were asked to answer the first question (F1) of Module F, which was entitled ***Participation in education and learning***:

> "The next questions are about your participation in **education and learning** activities during the last 12 months, that is, from … to ….
>
> During this time, did you take any education or training? This education or training would include **programmes**, courses, private lessons, correspondence courses, workshops, on-the-job training, apprenticeship training, arts, crafts, recreation courses or any other training or education? (yes/no)"

One must be certain that what is being measured is the same over time.

These minor variations may contribute to higher observed AET participation rates in ALL. A shift in emphasis from *adult education* to *education and learning*, and from *education or training* to *education and learning*, as well the inclusion of *programmes* among the list of examples in the question, enhances the likelihood of students in formal programmes, both part- and full-time, being included in the survey.[3] In fact, the design of Module F in ALL was explicitly

3. While most full-time students aged 16 to 24 in formal programmes are excluded from the IALS and ALL estimates of AET participation rates, part-time students in comparable programmes are not. Moreover, adults aged 25 to 65 in formal programmes are also not excluded. Therefore, if a greater number of participants in formal programmes, both full- and part-time, were captured in ALL, this may serve to increase the AET participation rates compared to those of IALS.

improved to capture all education and learning, and to distinguish better between programmes and courses (in subsequent questions). Additionally, greater emphasis on a broader notion of *learning* may have led to a capturing of some education and learning that is of a less organized nature, such as some forms of on-the-job training. For example, ALL results in *Table 2.1B* show participation rates in *other* AET, which was as high as 17 per cent in the United States. It is not possible, however, to derive a similar estimate for IALS, and thus it is difficult to judge whether participation in *other* AET was captured to such an extent in the overall rate for IALS. In any case, given the substantial size of *other* AET estimates, future designs should try to collect more information from people who respond 'yes' to having taken AET but 'no' to AET programmes and 'no' to AET courses.

There are indications that some countries are making progress toward lifelong learning for all.

Setting these possible problems aside, a comparison of total AET participation rates over time between IALS and ALL reveals substantial increases in Canada (+12.4 per cent) and the United States (+14 per cent) between 1994 and 2003, an increase in Norway (+6.3 per cent) between 1998 and 2003, and a decrease in Italy (-3.6 per cent) between 1998 and 2003. Proper comparisons over time for Switzerland need to be done by language community, since IALS data for the French- and the German-speaking communities were collected in 1994 and for the Italian-speaking community in 1998. Other comparisons between job-related and non-job-related reasons or between programmes and courses are not possible due to changes in the questionnaire's design. Overall, the results indicate progress towards the goal of achieving lifelong learning for all in Canada, Norway and the United States. But one should be cautious about drawing such conclusions, since some issues appear to arise as to whether comparability was achieved, and hence whether such conclusions are warranted.

Otherwise, in many countries national data sources point toward a general increasing trend in AET participation over the last 25 years. This is mostly attributed to the rising concern for human capital over the last decades, including the realization of the economic benefits of investing in people for productive reasons. More recent trend data

from the ELFS have been used to show a mixed pattern, similar to the IALS/ALL surveys, which depends on the country. The OECD (2003*a*: 39) reports that according to the ELFS, participation rates appear to have generally increased between 1995 and 2000, but that this does not hold for all countries.

Participation in informal learning

Comparable data on informal learning is rare.

A broader notion of learning is not only limited to organized forms of learning but also includes learning in informal settings. Thus far only organized forms of adult learning have been considered (i.e. AET). This section explores some of the informal learning data collected by ALL. Cross-nationally comparable data on informal learning are rare, and ALL was one of the first attempts to collect this type of information.

Informal learning can be broad, but the focus here is on intentional development of useful competencies.

In general, informal learning does not involve teaching by a second party, is not organized, and does not lead to a recognized credential. Informal learning, experience and practice are closely-related concepts. Without careful distinction, most life experiences can be viewed as involving informal learning, but clearly certain types of activities are more relevant than others when it comes to the formation of relevant competencies. As it is used here, the term is explicit in its reference to learning and reflects a degree of intentionality in acquiring and developing competencies, and hence has a potentially important investment dimension. Accordingly, it is interesting to examine the extent and distribution of this type of learning, and in particular how it relates to the distribution of prior education and learning. Although still contested in the literature, a strong hypothesis is that merely learning in the course of daily life without some systematic prior reinforcement, such as formal education, may not be sufficient for developing competencies that have economic and social value (Svensson, Ellström and Åberg, 2004).

Informal adult learning is strongly related to prior levels of formal education.

In *Table 2.3*, data are presented on the percentage of adult populations who engaged in certain types of informal learning behaviours in the year previous to the survey by level of educational attainment. In nearly all cases, informal learning behaviours increase with levels of educational attainment. Notice, however, that learning directly through either one's own or others' experiences is nearly universal, with little variation by level of education. By contrast, learning informally by using tools interactively, such as using literacy, numeracy, computers or the Internet (see columns C and E), is strongly related to formal education and very common among the most educated. This relationship supports the hypothesis that prior competencies formed via education and training are useful for further learning in informal settings. Learning by engaging in various contexts, such as attending meetings, lectures, seminars, going on guided tours or learning by being sent to organizations, is also strongly related to education. But perhaps this relationship partly occurs indirectly, since educational attainment is known to facilitate access to opportunities such as a good job, which in turn leads to learning by being mobile and experiencing exposure to a variety of contexts.

Who does and who does not participate in adult learning opportunities?

This section identifies patterns in who participates and who does not from an international comparative perspective. The emphasis is on the demographic and social make-up of AET participants. Among the many ways of identifying and delineating salient groups of people, age, sex, social class, level of education, level of literacy skill, occupational, employment and minority status (i.e. immigrant, ethnic or minority language group) are considered. The purpose is to provide an overview of the distribution of AET among various groups. In particular, the analysis shows how **equitably** adult learning opportunities are distributed and whether some groups are more likely to participate in AET than others. This is done by reporting the observed unequal chances (odds) of various groups to participate (see *Box 1* for an explanation of how to interpret odds

Table 2.3 Participation in informal learning activities in the previous year, by educational attainment, populations aged 16 to 65, 2003

	Learning by being mobile and experiencing exposure to a variety of contexts				Learning by using tools interactively			Learning directly from others' experience[1]	Learning directly by self-experience[1]
	A	B	D	I	C	E	F	G	H
Bermuda									
Less than secondary (<ISCED 3)	8.8	26.5	22.3	31.6	48.5	28.3	29.3	72.1	85.2
Secondary (ISCED 3)	17.2	36.8	30.6	38.1	64.1	61.0	42.1	82.1	90.9
Post-secondary, non-tertiary (ISCED 4)	25.2	51.4	41.8	37.5	75.1	74.1	49.9	85.1	93.9
Tertiary (ISCED 5B)	41.0	64.5	53.7	41.7	88.8	83.7	55.3	84.1	92.5
Tertiary (ISCED 5A or higher)	48.5	76.4	56.4	34.7	92.1	91.4	54.5	84.9	93.9
Total participation	26.6	49.8	40.0	37.3	73.5	69.9	47.0	82.9	92.1
Canada									
Less than secondary (<ISCED 3)	15.2	20.5	17.7	14.2	41.4	42.9	40.2	66.2	80.6
Secondary (ISCED 3)	26.0	35.2	25.5	21.8	60.4	60.0	46.9	76.6	85.5
Post-secondary, non-tertiary (ISCED 4)	31.7	38.2	31.5	26.0	71.6	67.6	51.2	82.2	90.2
Tertiary (ISCED 5B)	38.5	48.5	34.7	28.8	77.2	73.6	52.0	83.2	91.5
Tertiary (ISCED 5A or higher)	51.4	64.0	46.5	31.7	84.3	83.0	59.1	86.2	94.3
Total participation	31.9	40.9	30.6	23.9	65.3	64.3	49.4	78.0	87.8
Italy									
Less than secondary (<ISCED 3)	8.8	5.4	12.6	3.0	17.8	12.7	16.0	23.1	24.7
Secondary (ISCED 3)	25.7	28.4	31.9	10.8	45.7	42.4	27.7	46.1	47.8
Post-secondary, non-tertiary (ISCED 4)	25.3	27.3	38.0	11.3	39.9	44.0	31.0	37.9	44.8
Tertiary (ISCED 5B)	31.1	37.4	83.0	25.4	73.3	58.7	68.6	55.1	70.5
Tertiary (ISCED 5A or higher)	43.0	58.1	57.3	19.9	62.7	63.9	39.7	57.9	60.8
Total participation	18.0	18.3	23.7	7.3	32.1	28.3	22.5	34.6	36.5

Norway									
Less than secondary (<ISCED 3)	19.4	24.5	22.1	14.4	47.6	45.9	40.9	63.4	83.3
Secondary (ISCED 3)	28.3	41.6	27.1	21.0	69.9	64.2	43.3	76.7	91.8
Post-secondary, non-tertiary (ISCED 4)	33.0	46.2	33.6	26.1	79.0	69.8	48.7	79.5	91.1
Tertiary (ISCED 5B)	42.4	62.4	37.1	29.8	84.3	79.2	46.6	84.2	94.0
Tertiary (ISCED 5A or higher)	48.4	74.4	46.1	33.0	93.4	87.8	58.5	87.2	96.4
Total participation	32.1	46.8	31.1	23.4	72.8	67.4	46.3	77.5	91.4
Switzerland									
Less than secondary (<ISCED 3)	23.8	24.0	41.2	30.9	76.8	52.5	42.2	86.8	87.1
Secondary (ISCED 3)	34.0	49.3	42.1	35.9	84.8	58.7	34.4	85.4	89.3
Tertiary (ISCED 5B)	52.4	71.5	48.7	44.7	95.1	65.7	32.9	87.7	91.4
Tertiary (ISCED 5A or higher)	68.4	81.5	59.3	47.0	96.4	77.1	44.3	91.1	93.4
Total participation	38.8	52.0	44.8	37.6	86.2	60.8	36.6	86.6	89.7
United States									
Less than secondary (<ISCED 3)	9.5	16.3	18.1	20.7	31.8	39.1	34.9	68.6	81.2
Secondary (ISCED 3)	19.0	34.0	25.7	25.7	61.7	61.8	50.6	77.9	91.2
Post-secondary, non-tertiary (ISCED 4)	30.4	44.9	22.6	30.0	74.8	66.3	61.7	84.9	94.8
Tertiary (ISCED 5B)	30.0	50.7	37.3	33.1	77.9	79.4	59.0	89.0	92.0
Tertiary (ISCED 5A or higher)	51.1	70.9	50.7	34.5	87.1	90.0	65.0	89.7	96.3
Total participation	26.7	41.9	31.4	27.7	64.7	66.4	52.6	80.3	91.0

Notes:

1. Non-specific general experience.
2. Participation rates in informal learning are based on whether sampled adults responded yes to one of the following questions ("During the last 12 months, did you ..."): A: Visit trade fairs, professional conferences or congresses?; B: Attend short lectures, seminars, workshops or special talks that were not part of a course?; D: Go on guided tours such as museums, art galleries, or other locations?; I: Learn by being sent around an organization to learn different aspects of that organization?; C: Read manuals, reference books, journals or other written materials but not as part of a course?; E: Use computers or the Internet to learn but not as part of a course?; F: Use video, television, tapes to learn but not as part of a course?; G: Learn by watching, getting help from or advice from others but not from course instructors?; H: Learn by yourself by trying things out, doing things for practice, trying different approaches to doing things?

Source: ALL Survey, 2003.

ratios). By extension, the analysis provides a comparative overview on the issue of whether certain groups may experience favourable **access** to adult learning opportunities.

Access to learning is increasingly perceived as a way of providing people with a chance to develop personal, social and economic resources that help them to secure a successful life (OECD, 2001; Rychen and Salganik, 2003). Moreover, wider access to learning can reduce inequalities in living conditions, as well as differences in labour market rewards. For example, research suggests that AET plays a key role in improving career prospects in terms of better earning profiles and employment security (OECD, 2003*b*: 240). Other possible outcomes associated with adult learning, such as the potential health and social benefits, are well documented (Feinstein and Hammond, 2004). Additionally, adult education has a role in combating social exclusion and promoting social cohesion (van der Kamp, 1999: 105). Overall, access to learning is seen by many as a way to reduce inequalities with regard to opportunities and living conditions.

Box 1. Using odds ratios

Odds ratios reflect the relative likelihood of an event occurring for a particular group compared to a reference group. An odds ratio of 1 represents equal chances of an event occurring for a particular group *vis-à-vis* the reference group. Coefficients with a value below 1 indicate that there is less chance of the event occurring for a particular group compared to the reference group, and coefficients greater than 1 represent increased chances (Hosmer and Lemeshow, 1989).

As an example, for the purpose of the analyses presented in *Table 4A-B*, the likelihood or odds of adults aged 56 to 65 participating in AET was set to 1. Odds greater than 1 for younger age groups indicate that those persons have increased chances to participate in AET compared to the 56-65 age group.

Unadjusted odds reflect the same information as participation rates, but the former method makes it easier to compare inequalities between groups across countries, even though the level of actual participation rates varies among countries. Adjusted odds allow for comparisons of inequalities while controlling for other factors that also play a role.

Table 2.4 Percentage of adults participating in AET and adjusted odds ratios showing the likelihood of participating in AET during the year preceding the interview, by various classification variables, 1994-1998

	Australia			Canada			Chile			Czech Republic			Denmark			Finland			Hungary			Ireland			Italy		
	%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds	
Age																											
16-25	45.5	3.6	***	43.6	4.8	***	24.9	3.6	***	24.4	1.8	**	68.0	2.4	***	69.8	1.8	**	27.7	3.7	***	29.0	3.5	***	34.5	1.4	
26-35	41.2	1.6	**	41.9	2.2		24.6	3.5	***	34.0	2.1	**	63.1	1.5	*	70.4	1.0		27.6	3.4	***	27.2	2.1	***	28.3	1.0	
36-45	40.4	1.5	***	41.8	2.3		20.7	3.3	***	29.1	1.6	**	64.3	1.8	***	64.9	1.0		19.6	1.8		25.3	2.1	***	25.0	1.1	
46-55	30.6	1.2		33.4	2.0		12.0	1.9	***	29.9	2.2	***	55.4	1.5	**	55.1	0.9		15.7	1.7		18.4	1.6	*	18.0	1.1	
56-65	17.9	1.0		14.7	1.0		6.9	1.0		8.8	1.0		32.0	1.0		29.7	1.0		3.4	1.0		9.1	1.0		9.3	1.0	
Gender																											
Women	35.1	1.0		36.3	1.0		19.9	1.0		21.7	1.0		59.2	1.0		62.3	1.0		20.5	1.0		25.0	1.0		19.1	1.0	
Men	37.8	1.1		37.6	1.3		19.1	0.8		31.2	1.7	***	54.7	0.8	**	54.5	0.7	**	19.1	0.9		22.1	0.8		26.2	1.1	
Parents' education																											
Less than upper secondary	34.2	1.0		28.4	1.0		15.5	1.0		22.2	1.0		49.2	1.0		50.0	1.0		11.6	1.0		21.3	1.0		18.5	1.0	
Upper secondary	41.3	1.2	**	42.4	1.3		33.1	1.2		34.2	1.3	*	59.5	1.0		65.7	1.2	*	25.1	1.2		33.4	1.0		39.2	1.0	
Higher than upper secondary	47.5	1.2	***	55.6	2.0	***	46.5	1.5		31.4	1.0		69.5	1.1		77.2	1.5	**	43.2	1.6	*	38.1	1.3		51.9	1.5	
Education																											
Less than upper secondary	24.0	1.0		20.7	1.0		9.8	1.0		17.7	1.0		41.2	1.0		35.9	1.0		7.1	1.0		14.1	1.0		9.2	1.0	
Upper secondary	38.0	1.3	***	32.2	1.0		25.5	1.7	**	35.8	1.6	***	56.2	1.2		63.5	1.5	***	18.2	1.3		27.7	1.2		37.5	2.0	***
Higher than upper secondary	56.1	1.8	***	55.7	1.9	*	45.2	2.5	***	47.0	1.7	***	74.6	1.8	***	80.0	1.9	**	47.7	4.0	***	44.9	1.7	***	51.3	2.8	***
Prose literacy level																											
Level 1	14.2	1.0		17.3	1.0		10.6	1.0		12.0	1.0		22.7	1.0		21.2	1.0		8.4	1.0		8.9	1.0		8.4	1.0	
Level 2	26.6	1.7	***	28.3	1.3		25.3	1.2		22.4	1.6	*	47.3	1.9	***	41.7	1.3		20.3	1.3		17.8	1.4		21.9	1.5	***
Level 3	42.6	2.8	***	43.1	2.0		40.2	1.4		33.1	2.0	**	69.2	2.9	***	68.2	2.5	***	34.6	1.6	***	30.0	2.2	***	38.6	2.1	***
Level 4/5	60.6	4.4	***	52.9	2.2	***	47.8	1.2		41.5	2.3	**	77.3	2.8	***	82.8	3.8	***	46.0	1.5		48.2	3.5	***	44.5	2.1	**

Employment status																									
Unemployed	28.8	1.0		29.5	1.0		19.3	1.0		19.5	1.0		53.4	1.0		30.4	1.0		12.6	1.0		9.7	1.0		16.3	1.0	
Employed	43.2	1.2		41.7	1.2		22.5	0.9		33.4	1.0		60.4	1.0		69.6	2.8	***	28.7	2.1	**	30.2	1.3		29.1	3.0	***
Retired	9.0	0.4	***	10.7	0.5		15.3	2.0		5.1	0.3		18.0	0.3	***	16.5	0.6	*	1.4	0.2	***	3.5	0.4		5.4	0.4	**
Student	96.2	69.5	*	66.1	3.9		100.0	>99	***	21.3	0.7		89.4	16.0	***	91.8	93.3		29.5	>99	***	50.2	27.2	***	100.0	>99	***
Homemaker	13.0	0.3	***	23.1	0.6		8.0	0.5	**	0.0	0.0	***	22.0	0.3	*	29.1	0.5	**	0.0	0.0	***	11.3	1.1		3.3	0.2	***
Occupation																											
Blue-collar low-skill	25.6	1.0		25.5	1.0		11.5	1.0		18.7	1.0		42.3	1.0		47.8	1.0		13.3	1.0		16.9	1.0		13.1	1.0	
Blue-collar high-skill	32.6	1.0		29.4	1.2		12.8	1.1		29.1	1.4		47.1	1.2		50.1	1.2		14.5	0.9		15.8	0.9		14.6	1.0	
White-collar low-skill	43.7	1.6	***	39.8	2.0	***	29.8	2.0	**	22.5	1.3		63.0	1.8	***	68.3	1.6	**	25.4	1.3		37.6	1.8	*	26.7	1.4	
White-collar high-skill	55.4	1.7	***	53.4	1.8	***	49.8	3.2	***	45.0	2.2	***	73.2	2.3	***	82.0	2.9	***	45.4	1.8	**	45.6	2.2	**	49.8	2.5	***
Immigration status																											
Foreign-born	30.9	1.0		33.4	1.0		31.5	1.0		13.2	1.0		54.9	1.0		61.2	1.0		24.2	1.0		26.5	1.0		28.7	1.0	
Native-born	38.5	1.3	**	37.9	1.3		19.4	4.5		26.5	2.3	**	56.9	0.6		58.3	2.0		19.8	1.7		23.3	1.0		22.4	0.9	
Language status																											
First and official language(s) not the same	29.2	1.0		28.1	1.0		13.5	1.0		23.8	1.0		45.6	1.0		65.8	1.0		10.9	1.0		27.5	1.0		18.4	1.0	
First and official language(s) same	38.0	0.9		38.8	1.0		19.5	1.1		26.5	0.7		57.0	1.8		58.2	0.6		19.9	2.0		23.4	0.5		22.7	0.7	
Community size																											
Rural	34.0	1.0		31.5	1.0		9.2	1.0		20.8	1.0		49.0	1.0		63.5	1.0		13.7	1.0		18.3	1.0		19.0	1.0	
Urban	36.7	0.9		38.1	1.1		21.5	1.1		28.7	1.3		59.7	1.2		51.0	0.9		23.1	1.3	**	26.9	1.4	**	27.1	1.1	

* p<0.10, statistically significant at the 10 per cent level.
** p<0.05, statistically significant at the 5 per cent level.
*** p<0.01, statistically significant at the 1 per cent level.

Notes: Belgium (Flanders), Germany and Portugal also particpated in the IALS study, but they did not ask some of the questions included in this analysis in a comparable way.

Table 2.4 (continued)

	Netherlands			New Zealand			Norway			Poland			Slovenia			Sweden			Switzerland			United Kingdom			United States			International average	
	%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds		%	odds
Age																													
16-25	48.3	2.5	***	60.4	4.4	***	42.8	2.8	***	17.7	3.8	***	43.3	2.1	**	41.0	1.1		48.8	2.3	***	51.5	2.7	***	33.4	1.8	*	41.9	2.8
26-35	45.9	2.0	***	51.6	2.1	***	56.2	2.1	***	17.4	2.5	**	45.5	1.8	**	57.0	1.4	*	49.6	1.9	**	51.2	1.5	**	46.5	1.5	**	43.3	2.0
36-45	40.4	1.9	**	50.5	1.7	**	52.5	2.0	***	18.4	2.7	**	38.9	1.8	**	60.7	1.6	**	43.7	1.7	**	54.3	1.7	***	44.9	1.3		40.9	1.8
46-55	30.6	1.4	*	42.7	1.4		47.3	1.8	***	11.4	1.8		27.6	1.3		57.1	1.5	**	38.6	1.5		41.0	1.1		43.8	1.4	*	33.8	1.5
56-65	17.0	1.0		27.6	1.0		23.8	1.0		2.8	1.0		9.5	1.0		34.7	1.0		24.6	1.0		21.1	1.0		26.9	1.0		17.8	1.0
Gender																													
Women	36.4	1.0		46.9	1.0		46.1	1.0		13.4	1.0		32.5	1.0		52.3	1.0		40.7	1.0		44.0	1.0		40.6	1.0		36.2	1.0
Men	39.4	1.0		49.0	1.1		47.9	1.0		16.1	1.4	**	34.7	1.3	**	49.4	1.0		43.5	0.8	*	45.9	0.9		40.8	1.0		37.2	1.0
Parents' education																													
Less than upper secondary	33.8	1.0		44.5	1.0		38.6	1.0		11.5	1.0		23.3	1.0		47.9	1.0		30.3	1.0		44.0	1.0		26.5	1.0		30.6	1.0
Upper secondary	49.5	1.4	***	51.7	0.9		49.5	1.2		21.4	1.0		44.8	1.2		53.6	1.2	**	47.7	1.2	*	62.8	1.5		44.7	1.1		44.4	1.2
Higher than upper secondary	46.2	1.1		62.3	1.3	*	58.3	1.4	**	35.7	1.3		66.1	1.4		57.4	1.1		50.1	1.1		67.7	1.3		55.3	1.3	**	53.3	1.3
Education																													
Less than upper secondary	26.5	1.0		37.8	1.0			1.0		8.0	1.0		12.1	1.0		35.0	1.0		20.4	1.0		34.1	1.0		14.0	1.0		21.8	1.0
Upper secondary	43.7	1.5	**	51.0	1.1		44.3	1.3		21.2	2.3	**	36.4	1.7	**	51.8	1.4	***	45.3	2.1	***	53.3	1.4	**	32.1	1.2		39.6	1.5
Higher than upper secondary	52.8	1.9	***	64.7	1.6	***	65.0	1.8	**	34.3	3.0	***	73.6	4.6	***	67.0	1.8	***	56.5	2.9	***	71.0	2.0	***	62.7	2.4	***	58.3	2.3
Prose literacy level																													
Level 1	21.9	1.0		29.9	1.0		14.6	1.0		8.3	1.0		15.3	1.0		29.4	1.0		22.4	1.0		20.8	1.0		14.1	1.0		16.7	1.0
Level 2	29.6	1.4		36.2	1.0		38.7	2.5	***	15.4	1.0		40.7	1.8	***	41.1	1.1		35.8	1.2		34.5	1.3		30.6	1.9	**	30.8	1.5
Level 3	42.2	1.7	**	55.7	1.8	***	51.5	3.0	***	23.4	1.2		61.6	2.1	***	52.2	1.4	*	52.0	1.8	*	58.0	2.6	***	48.3	3.0	***	46.9	2.1
Level 4/5	54.4	2.5	***	68.3	2.1	***	64.2	3.9	***	40.8	1.5		75.0	2.5	*	60.1	1.5	**	63.7	2.5	***	74.5	4.4	***	64.2	3.8	***	59.3	2.7

Employment status																														
Unemployed	37.8	1.0		33.5	1.0		37.6	1.0		9.4	1.0		17.1	1.0		44.0	1.0		33.0	1.0		30.1	1.0		26.3	1.0		27.1	1.0	
Employed	43.4	1.0		54.2	1.4		53.4	1.1		20.5	1.5		42.2	2.5	***	59.5	1.2		46.2	1.4		56.8	1.4	*	48.0	1.3		43.5	1.5	
Retired	13.1	0.6		17.7	0.7		6.7	0.2	***	2.0	0.4		5.8	0.4	**	16.1	0.4	***	20.5	1.0		8.6	0.3	**	12.5	0.5		10.4	0.5	
Student	65.6	6.5	*	91.8	>99		44.5	4.8	***	18.7	3.1		87.7	15.7		39.7	1.3		49.1	3.8	*	55.8	23.7		42.0	41.7	***	63.3	22.2	
Homemaker	23.2	0.7		23.4	0.5	*	14.0	0.3	***	3.7	0.5		11.0	1.3		25.5	0.4	**	24.8	0.8		13.6	0.4	***	13.7	0.6	*	14.6	0.5	
Occupation																														
Blue-collar low-skill	29.1	1.0		35.9	1.0		36.6	1.0		11.5	1.0		17.9	1.0		39.3	1.0		28.3	1.0		36.6	1.0		22.4	1.0		26.2	1.0	
Blue-collar high-skill	39.5	1.5		40.5	1.0		43.3	1.3		10.2	1.0		24.9	1.4		41.9	1.0		35.6	1.2		36.9	0.9		29.4	1.3		30.5	1.2	
White-collar low-skill	42.8	1.5	*	54.0	1.7	***	47.4	1.4	*	18.0	1.3		47.4	2.7	***	52.0	1.6	***	43.6	1.3		58.0	1.6	***	44.2	1.9	**	42.5	1.6	
White-collar high-skill	47.8	1.5	*	69.2	2.6	***	63.2	1.9	***	37.6	2.3	**	68.0	3.5	***	68.2	2.5	***	56.2	1.8	**	68.9	1.7	***	64.9	2.3	**	58.0	2.3	
Immigration status																														
Foreign-born	45.0	1.0		46.4	1.0		41.1	1.0		3.3	1.0		23.4	1.0		37.9	1.0		27.4	1.0		45.0	1.0		30.1	1.0		33.6	1.0	
Native-born	37.4	0.7		48.2	1.3		47.4	1.5		14.9	2.8		34.8	1.6		52.1	1.2		45.6	1.8	***	45.0	1.0		42.3	1.5		37.3	1.6	
Language status																														
First and official language(s) not the same	41.7	1.0		40.8	1.0		41.9	1.0		11.0	1.0		23.5	1.0		37.3	1.0		33.3	1.0		40.7	1.0		28.9	1.0		31.2	1.0	
First and official language(s) same	37.6	0.8		48.7	1.0		47.3	0.8		14.8	1.0		34.7	0.8		52.3	1.3		44.0	0.8		45.3	1.0		42.5	0.7		37.3	1.0	
Community size																														
Rural	36.4	1.0		40.2	1.0		44.6	1.0		9.6	1.0		24.7	1.0		49.0	1.0		36.9	1.0		46.2	1.0		43.4	1.0		32.8	1.0	
Urban	38.3	0.9		50.5	1.2		49.6	1.1		17.6	1.1		36.7	1.1		51.7	0.9		44.2	1.2		44.6	1.2	*	33.9	0.9		37.8	1.1	

* p<0.10, statistically significant at the 10 per cent level. ** p<0.05, statistically significant at the 5 per cent level.
*** p<0.01, statistically significant at the 1 per cent level.

Notes: Belgium (Flanders), Germany and Portugal also particpated in the IALS study, but they did not ask some of the questions included in this analysis in a comparable way.
Source: International Adult Literacy Survey, 1994-1998.

Given the potential significance of adult learning, the question of who is left out, or more appropriately who is not participating, since after all, non-participation does not necessarily equal social exclusion (Schuller, 1999: 26-27), becomes an important backdrop for educational policy and planning. The following uses data from the IALS to provide an international comparative overview of the distribution of the individual take-up of adult learning opportunities, including unequal chances to participate.

Age: older adults

Research suggests that as people age, they are less likely to participate in AET. The IALS data presented in *Table 2.4* support this hypothesis, showing that this was indeed the case in 18 countries. Even after adjusting for gender, levels of education and literacy skills, as well as employment, occupation, immigration and language status, youths aged 16 to 25 are on average about three times more likely to participate than older adults aged 56 to 65. Participation begins to decline among early- (26 to 35) and mid- (36 to 45) career-aged adults, but they are almost twice as likely to participate as older adults. By the age of 46 to 55, adults are half as likely as youths to participate, and this figure falls even further among older adults. The pattern is similar in all countries, but it is worth noting that the decline is less sharp in the Nordic countries. Separately, a similar pattern appears again when looking at training volume; i.e. older adults receive fewer hours of AET on average than younger adults (OECD, 2003*b*: 241).

There are various possible explanations for this observed pattern. Perhaps the most salient are the fact that an interest in pursuing AET for professional development or promotion becomes less relevant at an older age, or that the costs of participating may be higher, especially if it means taking time off work, and/or that changing jobs might imply a loss of seniority and employer-specific skills. Also, there may be considerable uncertainty associated with securing possible economic benefits. The remainder of the working life is shorter and so there is less time to recover the costs and secure financial gains from the investment (OECD, 2003*a*: 41-43). The same reasons will affect an employer's decision to invest and support the employee. On the other hand, there are still potential

benefits for both employer and employee (OECD, 2003*b*: 250). Accordingly, AET is often organized around working schedules and during working hours by many employers, so as to minimize conflict with work and other life situations. There are also financial assistance arrangements, including employer support, to overcome these problems. Many other AET-related policies target credit constraints and other market failures related to financial incentives (see section on *Financial support and the incentive to invest factor* on page 82).

Another set of reasons relate to overall readiness and motivation, which extend beyond financial considerations. Research suggests that many older adults may be limited in their readiness to learn (especially adults in low-skill jobs), including a possible lack of basic cognitive and non-cognitive dispositions that are seen as key for continued learning. Although the adjusted odds presented in *Table 2.4* take into account many variables such as education, occupational status and literacy skills, there are many other non-cognitive factors such as personality, motivation and interests that are age-related but not considered in the analysis. For example, it is likely that narrow concentrations of cumulative work and life experience among older adults is an obstacle to pursuing new learning experiences (van der Kamp, 1999: 107). Conversely, adults with varied cumulative experience and a keen readiness to learn may be less inclined to participate in organized forms of adult learning simply because they do not need it and they are more inclined to pursue new learning experiences through an informal medium such as self-guided study and development.

Other reasons may relate to the supply and availability of learning opportunities that meet the demand and needs of older individuals. Some assert that they are geared toward the needs of younger adults and that the supply of opportunities is limited for older adults (van der Kamp, 1999). The relative success of Nordic countries in reaching older adults may be partly due to the extensive role of adult popular education, but it is difficult to conclusively pinpoint this finding with the IALS data. This corroborates the hypothesis that international comparative surveys focus on the dominant nature of job-related reasons and that the data is not picking up the demand for learning associated with other reasons. For example, the needs

of retired adults are not related to the labour market, but at the same time there is increased concern to maintain older adults in a socially and economically meaningful role. Learning can be important for enhancing quality of later life, including better health, fulfilment and satisfaction, and keeps people attached to their communities in positive ways. It is also important for developing coping strategies to deal with demands from the external environment that are non-job-related. In short, a major challenge is to develop more attractive learning pathways for older adults.

Gender: women

Findings on whether gender differences exist in AET participation are mixed. According to the IALS data (see *Table 2.4*) men and women have on average about the same chances of participating in AET. Only in the Czech Republic, Poland and Slovenia are men more likely to participate than women, even after adjusting for levels of education and other variables. It is the opposite in Denmark, Finland and Switzerland, where women are more likely to participate than men.

Gender differences arise, however, in some countries when it comes to employment status and to obtaining employer support for AET (again see section on *Financial support*). The relationship between adult education and employment and unemployment rates is particularly significant for women (OECD, 2004: 192-194), implying that AET plays an important role in maintaining employability among women entering or returning into the labour market. Further, women tend to report family responsibilities, as well as financial reasons, as a major hindrance to participating in AET even though they would like to (see section on *Life situation, readiness and barriers factor* on page 94). According to the IALS data, for example, men are more likely than women to get financial support from their employer (OECD, 2003*b*: 255-256).

Except for the Nordic countries, unadjusted odds results show that participation tends to be slightly higher among men. This result is probably due to the interaction between gender, age and educational attainment. For example, there is a strong gender gap in educational attainment among older generations. In the countries considered, however, the educational attainment levels of women are

catching up with those of men (and in some countries are overtaking them), especially among younger generations (OECD, 2001: 77). Given the significant role of education in predicting participation in AET (see section on *Formal education* below), countries with large gender gaps in educational attainment are also likely to have large gender differences in AET participation.

Socio-economic background: low socio-economic groups

Socio-economic background is commonly assessed on the basis of the parents' level of education. In most societies, education is a strong marker of socio-economic status, and more broadly it provides a good indication on the extent of an individual's access to economic, social and cultural resources while growing up – resources seen as important to engage in and benefit from lifelong learning. Research suggests that parents' level of education is strongly related to the development and health of a child as well as the child's attainment in life in terms of both educational and occupational status (Maynard and McGrath, 1997). In many countries, socio-economic background remains one of the strongest factors associated with educational differences in terms of access as well as educational outcomes such as skills (OECD, 2001: 76).

As expected, the IALS data confirm the relationship between parents' level of education and their participation in AET: In all countries, the higher the parents' level of education, the higher the participation rate (see *Table 2.4*). The differences are much sharper in some countries than in others, and this will typically depend on the country's socio-political context as well as its policies related to the distribution of and access to resources, both in terms of how they affect opportunities and living conditions.

The observed relationship is not necessarily direct, however. Adults who come from a better socio-economic background tend to have higher educational and occupational attainment, which are in turn linked to chances of participating in AET. This is reflected in the adjusted odds of participating presented in *Table 2.4*. When such intervening factors are taken into account, the increased chances attributed to socio-economic status are in many countries reduced. This suggests that, in those countries, chances to participate depend more on factors such as access to educational and occupational

opportunities than on socio-economic background. It also implies that the other factors, such as education, may be linked to successful efforts to equalize access to and development of resources that otherwise remain unequal according to one's socio-economic background. By contrast, increased chances that can still be attributed to socio-economic status suggest that in some countries adults whose parents have higher levels of education maintain favourable access to AET opportunities.

Formal education: the less-educated

Theory has suggested that formal education prepares individuals for further learning and that formal education and adult learning are complementary (Svensson, *et al.*, 2004; Ellström, 2001). The main rationale is that through formal education, adults acquire a readiness to learn, including the theory and tools needed to effectively convert further learning into competencies, as well as the intrinsic motivation to do so. In other words, it takes competencies to create competencies – for example learning to learn is a key competency. Additionally, as a consequence of their educational background, individuals can obtain access to a good job and other networks, which support and facilitate access to AET opportunities (Boudard, 2001).

Indeed, findings show that those with higher levels of educational attainment participate more in AET (OECD, 2003*a*: 43) – this is a clear pattern that is observed in the IALS data (see *Table 2.4*). By extension, adults with low levels of education are less likely to participate in AET. Even after adjusting for other factors, the IALS results show that adults with a level of education higher than upper secondary are on average 2.5 times more likely to participate in AET than adults who did not complete upper secondary. This falls to about 1.5 times for adults who did complete upper secondary.

On the other hand, AET can be used as a way to compensate or substitute for low levels of prior education, since those with lower levels of education are probably those who need it most. Thus, a major challenge is to increase participation rates among the less-educated. But when it comes to education and training, those who already have get more, and those with little (or none) get less. The reasons for this observed phenomenon are multi-faceted.

First, from an individual point of view, education tends to prepare adults to engage in further learning. Additionally, common features shared by early school leavers are bad pedagogical experiences and lack of self-confidence with regard to learning (Illeris, 2004*a*). Thus, faced with a lack of readiness, adults with low levels of education have difficulty gaining access to opportunities to improve their knowledge and skills (OECD, 2003*a*). But not only might they not have the necessary skills or confidence to participate, they may not perceive the need to do so, or may actually not have a need to, depending on their life situation. There is a link between different levels of education and life situations, including the nature of one's work. In particular, the type of job tasks required by one's occupation appears to have a strong impact on willingness to participate (see section on *Nature of work and skill requirements factor* on page 77). Thus, low interest in participation among the less-educated can be a combination of bad educational experiences, a lack of readiness, and the perception that they may not have much to gain by participating. Since the mid-1990s, however, those with low levels of initial qualifications face increasing difficulty finding and holding down a job in many OECD countries (OECD, 2003*c*: 81).

Second, from the employer's point of view, adults with higher levels of education are more trainable, or at least more efficient trainees. Accordingly, employer support for AET tends to be directed towards adults who have higher levels of education. This is significant because employer-supported AET is a substantial component of total AET (OECD and HRDC, 1997; OECD and Statistics Canada, 2005; see also section on *Financial support and the incentive to invest factor*, p. 82). Third, from a public policy point of view, funding and support regimes for AET tend to be market-oriented and/or outcome-based, therefore efforts typically target those easiest to recruit and most likely to succeed, which tend to be those who already have a high level of education. In fact, initiatives to reach disadvantaged groups often correspond better to the demands of the advantaged (Rubenson, 1999: 116). Few countries have effective public policies and structures in place to help those who are hard to reach. The Nordic countries are among the few, and accordingly they tend to show comparatively higher rates of participation among the less-educated.

Foundation skills: less-skilled adults

The skill measures made available by IALS are direct observations of adults' literacy and numeracy capabilities (OECD and Statistics Canada, 2000). These are measured along a continuum reflecting varying levels of difficulty rather than being treated as dichotomous (i.e. can/cannot read or can/cannot write). The measures include not only the possible impact of education in developing those capabilities, but also the possible impact of learning in multiple contexts over the lifespan. In this sense they are broader measures than educational attainment. At the same time, they are much narrower measures of an adult's readiness to learn, since education reflects other competencies such as non-cognitive skills, including motivation and other affective learning behaviours. In this way, educational attainment and the IALS literacy measure are complementary.

Similar to the educational attainment pattern observed above, people with high levels of literacy are more likely to participate in AET. This is not surprising, since literacy is seen as a necessary foundation skill for engaging in many learning situations, especially those that are text-based (i.e. use printed course materials or ICT-based learning platforms). In this way, educational attainment and the measure of literacy share the feature of reflecting readiness and trainability. As a major difference however, educational credentials are easier to observe by others, such as an employer, than one's actual level of literacy. The latter is inferred through a more direct or detailed evaluation of individual task performance such as on-the-job experience and track record. This is additional information typically sought by employers when hiring, and by extension can affect decisions to support work-related AET – above and beyond the information that is revealed by educational credentials.

Indeed, even after adjusting for educational attainment, results show that adults with higher levels of literacy participate in AET more often than adults with lower levels of literacy. In general, the IALS data confirm that not all adults with the same level of education display the same level of literacy skills (OECD and Statistics Canada, 2000). This is because the quality of education received can vary substantially within countries, and also because adults can maintain,

enhance or lose their skills depending on the extent to which they use them at work and in daily life, as well as the extent of continued learning they receive (OECD and Statistics Canada, 2005). Overall, education and literacy both play a role.

From the employer's point of view, those with higher levels of literacy are, in the same way as those with higher levels of education, more trainable, or at least more efficient trainees. Support is, however, more likely to be given to employees who demonstrate a high likelihood of completing job tasks successfully above and beyond what would be expected from someone with their level of education (OECD, 2003*b*: 252-253). By reflecting individual histories more precisely than credentials, the literacy measure in IALS appears to be a more reliable measure of cognitive capabilities than educational attainment. This may in part explain the privileged access of the higher-skilled to employer-supported AET.

AET can also serve the purposes of developing foundation skills such as literacy skills (i.e. basic AET). Therefore the nature of the relationship between AET and literacy skills depends on the type of AET in question. From this perspective, adults with lower levels of literacy skills are probably the ones in greatest need of basic AET, and thus higher participation rates among the less-skilled can be expected. But this is not the case for several reasons. From an individual point of view, not all adults feel they need to upgrade their skills, especially if the nature of their work and their general life situation do not require it. From a public policy point of view, while the discourse in many parts of the world recognizes the necessity to develop the skills and competencies needed to be a productive citizen, many governments have drastically cut public funding to adult literacy and adult basic education programmes (Rubenson, 2005). However, countries that do have targeted outreach and public funding programmes, such as the Nordic countries, exhibit higher rates of participation among less-skilled adults.

Employment status: the unemployed

As mentioned earlier, labour market training is a major component of adult education. Furthermore, employer-supported AET forms a substantial part of the total AET activity in many countries. Accordingly, it can be inferred from the IALS results

presented in *Table 2.4* that employed adults are more likely to participate in AET than unemployed adults. On average, the employed are about 1.5 times more likely to participate, but this figure varies substantially across countries.

Participation can also be comparatively high among the unemployed. Some countries have elaborate public policies known as 'active labour market policies' that specifically target the unemployed (OECD, 2001: 63). The purpose of these programmes is to improve employability and get people back into jobs. Denmark and Sweden are particularly known for their programmes and hence participation rates among the unemployed in these countries are the highest.

It is worthwhile to note that in many countries the unemployed tend to have low levels of education and skills. The OECD (2001) explains some of the possible reasons behind the low employment rate of the less-skilled. Among the more salient reasons, there is a notable decline in the relative demand of low-skill labour (OECD, 2001: 186). This is partly due to technological change that favours educated workers, but also to the increased mobility of capital in a globalized environment, which is leading to the shift of many low-skill jobs to countries with surplus labour. Other reasons include the hoarding of educated staff by employers for competitive reasons, and the lack of incentives to work in low-skill jobs because the economic benefits are not very high. Low levels of skills among the unemployed make active labour market programmes an attractive policy for getting people back into jobs.

Adults who are not in the labour market, such as homemakers and retirees, tend to participate less in AET. Students are a special group that tend to show very high rates of participation in AET. Substantial heterogeneity exists among this group, however, since many are also in the labour market or partake in special arrangements that combine education with labour market experience. This is not considered in the analysis because of data limitations. Moreover, there are some problems associated with distinguishing between initial education and AET among the younger students, which may in part explain the high rates of participation (see previous sections on *Defining*

what counts as adult learning and *Participation in alternative post-compulsory learning pathways* on pages 23 and 45).

Occupational status: less-skilled workers

The incidence of work-related AET tends to vary according to the skill level required for completing job tasks associated with particular occupations. For example, jobs involving manual routine tasks with little decision-making, and hence margin for error, tend to require comparatively less work-related AET in order to perform job tasks satisfactorily. Indeed, it can be seen from the IALS results presented in *Table 2.4* that adults in low-skill blue-collar occupations are the least likely to participate in AET and that highly-skilled white-collar workers are the most likely – this is a clear pattern across all IALS countries and holds even after adjusting for other factors such as educational attainment and socio-economic background.

The picture is more complex however. Adults in low-skill white-collar occupations are more likely to participate in AET than adults in high-skill blue-collar occupations. Therefore, the type of skills and job tasks are important to consider in relation to the need for AET. For example, the development of certain skills may benefit more from formalized AET settings, compared to the development of other skills that may benefit more from learning by watching and/or doing. Recent findings suggest that the extent of literacy practices at work – in particular the frequency and variety of reading practices – is one of the most significant determinants of participation in work-related AET (OECD and Statistics Canada, 2005; also see section on *Nature of work and skill requirements factor* on page 77). This suggests that jobs which require a higher level of literacy practice are associated with more AET. Indeed, less-skilled white-collar workers tend to engage more in literacy practices at work than highly-skilled blue-collar workers (OECD and Statistics Canada, 2005: 142). This may in part explain the result and is considered further in the section on nature of work and skill requirements factor. From this perspective, the distribution of job tasks across the work hierarchy may influence the observed differences in AET participation among adults in different types of occupations (Rubenson, 1999: 113).

Furthermore, it can be inferred from *Table 2.3* that as educational levels increase, adults are more likely to visit trade fairs,

professional conferences or congresses, and learn by being sent around an organization to learn different aspects of that organization. These types of learning activities are connected with one's type of occupation. Separately, adults in white-collar occupations may have favourable access to AET opportunities for reasons other than the nature of their job tasks, such as social prestige and access to networks and other resources.

Minority groups: immigrant and language minorities

Minority groups have often not had equal access to learning resources. Nowadays, many governments make efforts to counterbalance the difficulties that different minority groups face in obtaining access to education and training. Minorities are varied and their situation with respect to AET varies accordingly. The OECD (2001: 82) distinguishes between three main groups of ethnic minorities, namely: migrant groups in societies; minority indigenous populations; and historically disadvantaged groups (e.g. African-Americans, gypsies, etc.). Another important distinction is official minority language groups (e.g. the French-speaking region in Canada, the Swedish-speaking community in Finland, the French- and Italian-speaking regions in Switzerland, etc.). The different needs can vary from mastering one or more of the official language(s) used in society to fostering knowledge and understanding of different cultural backgrounds and, among others, resolving conflicts between groups.

The IALS results on the overall differences in AET participation between native-born and foreign-born populations are presented in *Table 2.4*. The results are mixed – partly because of differences in the composition of populations and differences in government policies such as immigration and integration (OECD, 2003*a*: 44-45). For example, there are strong variations in the educational attainment and social and employment situations among minority groups in different countries. In most IALS countries, more native-born adults tend to participate in AET. But in Chile, Finland, Hungary, Ireland, Italy and the Netherlands, more foreign-born adults participate in AET. The pattern is similar among adults whose first language is not the same as the official language(s).

Geographic location: rural residents

The IALS results on the overall differences in AET participation between urban and rural residents are presented in *Table 2.4*. In the majority of IALS countries, urban residents display a higher rate of participation in AET than rural residents. Differences, however, tend to be marginal, except in Chile, Hungary, Ireland, Poland and Slovenia, where urban residents are over 1.5 times more likely to participate than rural residents. Only in Finland, the United Kingdom and the United States do rural residents participate more often. Country differences are likely to depend strongly on policies regarding the geographical distribution of AET provision and, more broadly, resources for adult learning.

Summary and some synthetic contrast groups

In summary, those who are women, older, from low socio-economic backgrounds, less-educated, less-skilled, in low-skill jobs, unemployed and/or immigrants are the least likely to participate in AET in the IALS countries. Being in one of these groups does not mean exclusion from one or more others – on the contrary; in many cases, people belong to more than one group at the same time. The following analysis demonstrates that when this is the case, inequalities are exacerbated. IALS data are presented in *Table 2.5* for a number of synthetic contrast groups that highlight the large differences in AET participation when people belong to more than one group. The synthetic contrast groups considered are as follows:

- group 1: employed mid- to late-career-aged (45-65) adults who are less-educated, less-skilled, and in low-skill blue-collar jobs;
- group 2: employed mid- to late-career-aged (45-65) adults who are highly-educated, highly-skilled, and in high-skill white-collar jobs;
- group 3: employed early- to mid-career-aged adults (26-45);
- group 4: unemployed or out-of-the-labour-market mid- to late-career-aged (45-65) adults who are less-educated and less-skilled;
- group 5: unemployed or out-of-the-labour-market mid- to late-career-aged (45-65) who are highly-educated and highly-skilled; and

- group 6: unemployed or out-of-the-labour-market early- to mid-career-aged adults (26-45).

The participation rate of adults in groups 1 and 4 are very low compared to those in groups 2 and 5 respectively. The former groups show participation rates significantly below the average, whereas the latter show rates significantly above the average. Interestingly, younger adults aged 26 to 45 tend to have participation rates above the average, irrespective of their education and skills levels or type of occupation.

Table 2.5 Percentage of adults participating in AET during the year preceding the interview, by various synthetic contrast groups, 1994-1998

		Synthethic contrast groups					
	Total	**1**	**2**	**3**	**4**	**5**	**6**
	Participation rate						
Australia	36.7	16.7	53.5	46.0	8.2	23.4	17.5
Canada	37.5	10.7	59.5	43.8	4.5	19.4	34.7
Chile	18.5	2.6	42.2	26.2	4.9	28.4	14.9
Czech Republic	27.7	26.7	50.8	34.0	3.0	15.5	14.9
Denmark	57.5	22.4	74.7	63.8	17.0	41.2	46.1
Finland	57.9	35.2	85.5	72.3	6.3	39.5	33.2
Germany	19.7	13.5	30.8	25.4	3.2	14.6	15.5
Hungary	18.5	4.2	42.8	29.9	0.8	7.0	5.6
Ireland	21.9	7.8	50.3	31.5	3.8	20.1	15.6
Italy	19.8	8.3	69.3	30.8	2.4	6.8	8.6
Netherlands	37.7	13.3	45.5	47.5	10.5	32.9	29.0
New Zealand	46.5	20.7	69.6	56.0	10.9	35.1	29.9
Norway (Bokmål)	51.6	16.4	66.8	57.4	4.8	7.7	27.2
Poland	14.7	8.5	32.9	22.1	0.5	12.7	6.2
Portugal	11.7	1.1	44.2	18.6	0.6	39.3	5.7
Slovenia	34.6	7.0	79.5	45.1	3.4	27.9	17.0
Sweden	57.4	41.5	75.0	62.2	11.3	30.8	40.5
Switzerland	44.4	7.1	60.6	50.1	13.2	38.9	28.2
United Kingdom	44.7	27.1	69.4	61.0	6.3	31.4	22.8
United States	44.0	6.9	71.0	50.5	1.8	25.4	19.6

Notes:

Group 1: Employed mid- to late-career-aged (45-65) adults who are less-educated, less-skilled, and in low-skill blue-collar jobs
Group 2: Employed mid- to late-career aged (45-65) adults who are highly-educated, highly-skilled, and in high-skill white-collar jobs
Group 3: Employed early- to mid-career-aged adults (26-45)
Group 4: Unemployed or out-of-labour-market mid- to late-career-aged (45-65) adults who are less-educated and less-skilled
Group 5: Unemployed or out-of-labour-market mid- to late-career-aged (45-65) who are highly-educated and highly-skilled
Group 6: Unemployed or out-of-labour-market early- to mid-career-aged adults (26-45)

Source: IALS, 1994-1998.

Motivating factors for participating in adult learning

This section discusses various motivating factors that can in part explain observed inequalities in AET participation. Many of the factors were introduced in the section on *Who does and who does not participate in adult learning opportunities* (page 55), but in this section additional international comparative data is used to support and develop some of those possible explanations. IALS, ALL and Eurobarometer data are used where most appropriate. Among other possible motivating factors, the following discussion considers the nature of work and skill requirements; financial support and incentives to invest; engagement in and demands placed by daily life; and life situation, readiness and barriers. These factors are thought to bear strong influence on one's motivation to participate in adult learning.

Nature of work and skill requirements factor

The majority of people participate in AET for job-related reasons

As reported above, job-related AET accounts for at least 60 per cent of total AET in IALS countries and reaches as high as 90 per cent in Australia, Denmark, Norway, the United Kingdom and the United States (see *Table 2.1A*). This result is not surprising when one considers that for the vast majority of adults aged 16 to 65 the world of work is a substantial part of daily life. Moreover, it can place substantial demands on many individuals that necessitate continuous learning and periodic upgrades of competencies. In this way, working life, and more specifically the nature of the workplace, is a potentially important factor that motivates many adults to participate in learning.

The learning process is inherent in work, but varies with the nature of the job

The learning process is inherent in work experience, and in general the workplace is a learning space (Illeris, 2004*b*: 77-89). Recent years have witnessed a surge of efforts to harness this process in an overt attempt to foster and strengthen competence-building and learning in the workplace (OECD, 2001: 28). There is a difference, however, between a broad notion of learning at work and participation in more structured training in an employment context,

although in practice on-the-job training is not easy to distinguish from everyday learning at work. In any case, the former is much more common. The Third European Survey on Working Conditions showed that the opportunity to learn new things at work is much higher than in training that is actually paid for or provided by the employer (OECD, 2003*a*: 51). Opportunities to learn new things on the job appear to vary with the characteristics and position of the job, which exacerbates inequalities in adult learning (Åberg, 2002).

The relationship between the nature of the work and organized learning

Research suggests that there is an important interaction between learning in the workplace and job-related AET (Illeris, 2004*b*). Certain job tasks require more learning than others and thus certain occupations require more learning than others. This depends on the skills required to carry out the job tasks.

There are varying skill requirements at work depending on the type of job

It is commonly accepted that different skill sets are needed to perform different job tasks. Research by Béjaoui (2000) suggests that cognitive, leadership, communication and both gross and fine motor skills are required to varying degrees for satisfactory performance in the tasks of various types of occupations as described in the 1977 Canadian *Dictionary of occupational titles*. In related research, Boothby (1999) suggests that expert-type occupations require cognitive skills more than other types of work, more than the average amount of management and communication skills, and fine motor skills. Although managers are not required to use cognitive skills as intensively as experts, they are required to use management and communication skills more often, making their required skill set the most balanced. Similar to experts, high-skill information occupations require a more-than-average use of cognitive, management and communication skills. To a lesser extent, low-skill information occupations also require the use of these skills slightly more than average. Low-skill services and manufacturing (goods producing) occupations require the use of these types of skills comparatively less often (see OECD and Statistics Canada, 2005: 135; Desjardins, 2004 for further details).

Cognitive skill requirements at work are strongly associated with AET ...

Both the IALS and ALL surveys collected detailed information on selected job tasks that are relevant to the cognitive-type skills assessed in the survey (i.e. literacy and numeracy). These data are used to create measures that gauge the extent to which adults engage in reading, writing and numeracy-related activities. Indeed, it can be inferred from the ALL results presented in *Table 2.6* that the extent of literacy practices at work – in particular the frequency and variety of reading practices – is one of the most significant determinants of participation in work-related AET, even after taking into account educational attainment, level of skills and type of occupation. Although the measures derived from the IALS data do not factor in the intensity or criticality of different reading practices, it can be inferred that jobs which require a higher level of literacy practice are in general associated with more AET. Further, other cognitive skills such as problem solving, planning and organizational skills are likely to be associated with jobs that require comparatively high levels of reading practice. This may in part explain why the reading practice measure is a better predictor of participation in AET than the direct measure of literacy skill in IALS (i.e. prose skill). In summary, jobs that require comparatively higher levels of cognitive skills seem to be associated with more learning, especially of the type that is organized.

… so are ICT and leadership skill requirements.

From *Table 2.6* it can be inferred that the more frequent use of computers for task-oriented purposes is associated with higher participation rates in job-related AET. According to the ALL data, above-average users are about two to three times more likely to participate in job-related AET, even after adjusting for various other factors including literacy practices, education and type of occupation. Moreover, research suggests that information and communication technologies (ICTs), including computers, can play a potentially significant role with regard to informal learning in the workplace (Illeris, 2004*b*: 91-104). Supervisory responsibilities are also associated with higher AET participation, but this can be marginal, especially when other characteristics describing the

Table 2.6 Percentage of adults participating in job-related AET and adjusted odds ratios showing the likelihood of participating in job-related AET during the year preceding the interview, by various classification variables, employed populations aged 16 to 65, 2003

	Bermuda			Canada			Italy			Norway			Switzerland			United States		
	%	odds		%	odds		%	odds		%	odds		%	odds		%	odds	
Reading engagement at work																		
Never	4.75	1.0		18	1.0		4.6	1.0		12	1.0		14	1.0		6.4	1.0	
Rarely	13.3	1.6		27	1.3		6.9	1.0		21	2.5	***	16	0.8		22	1.4	
Less than once a week	31.1	2.4		38	1.6	*	22	2.5	*	41	3.5	***	39	2.0		36	2.5	
At least once a week	44.5	3.3	*	49	2.0	***	31	3.6	***	52	5.7	***	49	2.4	**	53	2.8	*
Supervisory status																		
No supervisory responsibilities	28	1.0		37	1.0		12	1.0		41	1.0		36	1.0		37	1.0	
Supervisory responsibilities	37	1.3		45	1.2	*	23	1.5	**	46	1.1		44	1.1		46	0.9	
Firm size																		
Less than 20	20.3	1.0		30	1.0		8.7	1.0		31	1.0		30	1.0		30	1.0	
20 to 99	33.3	1.5	**	39	1.3	**	9.9	1.0		37	1.2		41	1.3		38	1.3	*
100 to 499	42.1	2.3	***	45	1.8	***	17	1.6	*	50	1.3		45	1.4	*	41	2.4	***
500 to 999	37.8	1.8	**	42	1.5	**	12	1.0		51	1.3		34	0.9		43	2.4	***
1000 and over	45.7	2.6	***	46	1.8	***	30	3.3	***	54	1.5	***	49	1.6	***	47	2.7	***

Using computers for task-oriented purposes																	
Non-user	6.53	1.0		15	1.0		4.9	1.0		14	1.0		12	1.0		14	1.0	
Below average user	15.7	1.7		26	1.4	**	12	1.5		27	1.1		23	1.9		20	1.4	
Average user	28.8	2.4	***	40	2.2	***	18	1.8	*	43	2.0	***	35	2.3	**	40	2.3	***
Above average user	42.8	2.7	***	51	2.7	***	28	2.3	***	53	2.3	***	52	3.3	***	50	3.1	***
Super user	50.4	3.3	***	47	2.2	***	34	2.9		62	3.1	***	35	1.4		62	4.6	***

Notes:

* p<0.10, statistically significant at the 10 per cent level.
** p<0.05, statistically significant at the 5 per cent level.
*** p<0.01, statistically significant at the 1 per cent level.
Notes: Odds are also adjusted for gender, age, educational attainment, and type of occupation.

Source: ALL Survey, 2003.

nature of the job are taken into account. A supervisory role is likely to reflect the leadership and communication skills required by the position. Overall, a supervisory role along with income and occupational status are factors that can be strongly linked to participation in AET.

The distribution of job tasks will impact the distribution of AET opportunities

In summary, workers who are already better positioned in the labour market have more opportunities and incentives to acquire and develop competencies. Further, the way the labour market is structured, and more generally the structure of occupations and production in a particular country, is likely to bear a strong influence on the distribution of work-related adult learning. For example, flat work structures with less hierarchy in the workplace have been linked to the high-skill knowledge economy sector and a more equitable distribution of competencies. Research is needed to understand better the relationship between occupational and production structures and the distribution of AET among different countries.

Financial support and the incentive to invest factor

Employers support a large portion of AET activity …

Among the IALS countries, it can be seen from *Table 2.7* that on average about two out of every three persons who undertook any AET did so with at least some employer support, implying that employers are the most common source of financial support for AET. In this context, employer support includes direct expenses such as paid on- or off-the-job training, tuition, course materials, and/or travel and accommodation and other indirect expenses. This reflects a dramatic increase over the last quarter of the twentieth century, which has radically altered the landscape of AET (Boudard and Rubenson, 2003: 267). It also points to the pervasive impact of broader changes in the labour market and the forces that make people take up AET. The increase in job-related AET explains much of the rise in total AET provision since the early 1980s. For example, the proportion of adults in Sweden receiving employer support for AET increased from 17 per cent in 1975 to over 50 per cent in 2000.

… and hence the long arm of the job is strong

The *long arm of the job* is becoming longer and stronger in terms of financing as well as motivation. Along with this force however, inequality in access to AET has increased across the work hierarchy (Rubenson, 1999: 113). Moreover, participation may not always be voluntary. There are some indications that individuals are increasingly pressured to participate in job-related AET (Hight, 1998; Carré, 2000). The IALS data show that most employer-supported AET results from the initiative of the employers themselves, although it can also be seen that often it results from the initiatives of the employees, but nevertheless receives the approval and support of the employer (Tuijnman and Hellström, 2001). Additionally, the fact that many adults participate for job-related reasons even though they do not receive financial support from their employer reveals the strength of the long arm of the job.

Firms play an important role in AET and this depends on their characteristics, including size…

Firms play a major role in AET and represent a large portion of the training market (OECD, 2003*a*: 51-53). Data from the Second Continuing Vocational Training Survey (CVTS2) show that over 70 per cent of firms in the majority of European countries provide support for AET (European Commission, 2002). In Greece, Italy, Portugal and Spain, the proportion is much lower, ranging from 18 to 36 per cent of firms. Given their substantial role in most countries, it is important to consider the characteristics of firms that offer training. Evidence derived from IALS shows that the participation of employed adults is strongly associated with the size of the firm in which they work. In fact, it can be inferred from the results presented in *Table 2.6* that firm size is one of the strongest determinants of participation in AET. In general, adults who work in large firms appear to receive more AET. Conversely, adults who work in small enterprises or are self-employed have the least access to AET. Possible reasons for these findings may be that large firms have more opportunities to benefit from AET, have lower unit costs of training, and greater access to credit and information (OECD, 2003*b*: 253).

… and firm practices

Participation also depends on the characteristics of firm practices (OECD, 2003*a*: 51-53). Firms that are competing in global markets show high training activity. Similarly, firms that undergo significant technological change and/or changing work practices report the highest AET activity. This suggests that AET is strongly associated with innovation. Separately, the presence of trade unions is strongly linked to formalized approaches to training within firms (Boudard and Rubenson, 2003: 268).

The rationale for investing in AET is to develop competencies that have value …

The main motivation to invest in AET is the development of competencies that have value, including personal, economic and social value. But the incentives to invest can vary between individuals and employers depending on the type of value and who it is that benefits; in principle this has implications on who should pay. Generally, the incentive for employers to invest in employees is to create economic value for the firm, whereas the incentive for individuals is to develop employability with any firm, as well as to develop competencies for other social and personal values. This has implications on the type of AET that is supported by employers.

… but what value for whom has implications for who should pay for either general or specific AET

According to the human capital theory (Becker, 1962; 1964) and in perfect labour market conditions, employers are only interested in paying for training that leads to the acquisition of specific skills that could be valuable to the firm, whereas individuals are also interested in developing general (or transferable) skills that are widely valued in the labour market as well as in other contexts (i.e. health, home, community and leisure). In practice however, it is difficult to distinguish between AET that is geared towards providing specific skills and that aimed at teaching general skills. Even AET that is entirely paid by the employer is likely to provide skills that are applicable in multiple contexts and transferable to other employers (OECD, 2003*b*: 246).

Market imperfections distort firms' and individuals' decisions to invest in AET

Moreover, several labour market imperfections may explain why firms have an incentive to pay for general training, such as when employees have little choice among alternative employers, lack of certification and, among others, asymmetric information. Otherwise, AET that develops the employability of individuals should be paid for by individuals. In line with this expectation, it can be seen from the IALS data presented in *Table 2.7* that on average self-financing is the second most common source of financial support, and in some countries it is in fact the dominant source.

This leads to possible under-investment and market failures associated with AET

There is much debate over whether current levels of investment in AET are adequate among OECD countries. The potential for under-investment arises due to several market failures associated with AET, and can be linked to both employer and employee behaviour. First, labour market imperfections exist, affecting the incentives of both firms and individuals to invest. For example, if pay scales do not reflect the added value that individual employees contribute to the firm, which is created as a result of having undertaken AET, then employees will not have any incentive to invest. Separately, even firms that do invest in AET will not typically consider the benefits that may accrue to future employers. There are also other non-labour market sources of market failure, such as when individuals are not capable of borrowing money because they do not have any collateral. Individuals face credit constraints in financing their own investments in AET. Overall, evidence shows that an under-provision of AET is likely to occur in all OECD countries (see OECD, 2003*b*: 248).

Who receives employer support?

The extent of employer support is linked to certain firm characteristics mentioned in the above discussion, such as firm size and practices. Given the prevalence of employer-supported training, it is also important to consider the individual characteristics of adults who do and do not receive employer support. It is not surprising that the data in *Table 2.7* display a similar pattern to the overall

Table 2.7 Percentage of participants in AET who receive financial support from various sources, by various classification variables, populations aged 16 to 65, 1994-1998

	Australia				Canada				Chile				Czech Republic				Denmark				Finland				Hungary				Ireland				Italy			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Participation rate																																				
Total	36.45	17	19	5	36.92	17	18	7	19.5	7	7	4	26	8	18	3	56.89	15	35	17	58.35	19	36	11	19.8	8	11	3	23.5	9	9	4	22.57	10	7	7
Gender																																				
Women	35	14	23	5	36	16	21	6	20	6	9	3	22	8	23	3	59	12	37	14	62	14	35	11	21	8	10	2	25	6	10	4	19	10	11	7
Men	38	20	15	4	38	19	16	9	19	9	6	5	31	8	14	2	55	17	33	19	55	24	38	12	19	9	11	3	22	13	8	3	26	10	4	7
Age																																				
16-25	46	25	19	8	44	27	13	8	25	14	6	5	24	12	12	2	68	15	34	26	70	35	23	28	28	17	9	3	29	10	12	5	34	25	4	11
26-35	41	20	21	5	42	19	23	9	25	9	11	3	34	9	22	3	63	16	40	19	70	24	44	15	28	10	16	5	27	10	13	4	28	13	10	7
36-45	40	18	24	4	42	18	22	6	21	6	8	5	29	10	21	4	64	14	45	16	65	18	45	10	20	7	13	3	25	11	9	4	25	9	11	7
46-55	31	12	17	3	33	15	17	11	12	3	4	5	30	6	25	2	55	14	36	14	55	12	40	7	16	4	11	2	18	9	7	2	18	5	7	7
56-65	18	8	7	2	15	7	8	1	7	4	3	1	9	2	7	1	32	15	15	10	30	13	15	3	3	2	1	0	9	4	3	1	9	4	2	4
Education																																				
Less than upper secondary	24	10	12	4	21	8	7	5	10	3	2	3	18	4	12	1	41	10	20	13	36	11	20	6	7	3	3	1	14	4	5	3	9	3	4	2
Upper secondary	38	17	19	5	32	13	16	8	25	8	10	6	36	12	25	3	56	14	34	16	63	21	37	13	18	8	9	2	28	11	11	4	38	18	12	12
Higher than upper secondary	56	30	31	6	56	30	31	8	45	22	21	6	47	19	35	9	75	21	53	22	80	25	59	13	48	19	28	9	45	22	20	6	51	24	15	19

Prose literacy level																																
Level 1	14	4	6	4	17	8	4	6	11	3	4	3	12	3	9	1	23	4	10	7	21	6	9	5	8	3	5	1	9	2	4	2	8	4	3	2
Level 2	27	11	13	4	28	11	14	7	25	11	10	4	22	6	17	2	47	11	27	14	42	12	25	5	20	9	11	3	18	6	6	3	22	8	8	7
Level 3	43	20	23	4	43	22	19	9	40	18	15	8	33	11	22	3	69	20	45	20	68	21	43	13	35	16	19	4	30	13	11	5	39	18	11	13
Level 4/5	61	33	34	6	53	26	34	8	48	29	21	8	41	16	25	8	77	23	50	21	83	31	52	20	46	13	24	13	48	22	21	6	44	25	12	12
Occupation																																				
Blue-collar low-skill	26	8	14	5	26	10	12	5	12	3	5	2	19	2	16	0	42	10	21	12	48	13	30	6	13	7	6	2	17	5	8	2	13	4	6	4
Blue-collar high-skill	33	15	17	3	29	12	12	5	13	4	4	2	29	7	22	2	47	9	28	10	50	15	26	8	15	4	10	1	16	3	8	4	15	4	7	3
White-collar low-skill	44	22	22	5	40	16	21	7	30	10	14	5	23	5	17	2	63	16	41	17	68	19	46	11	25	12	12	2	38	15	17	6	27	12	12	4
White-collar high-skill	55	26	35	4	53	28	37	7	50	20	24	10	45	15	33	6	73	18	56	19	82	24	61	15	45	18	28	7	46	20	22	5	50	19	18	18

Notes:
1. Total AET
2. Self- or family-supported
3. Employer-supported
4. Government-supported
-- indicates that data are not available.

Source: IALS, 1994-1998.

Table 2.7 (continued)

	Netherlands				New Zealand				Norway				Poland				Slovenia				Sweden				Switzerland				United Kingdom				United States				International average			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Participation rate																																								
Total	37,9	18	19	4	47,89	21	27	10	47	13	36	16	14,71	6	7	1	33,59	12	21	8	50,8	--	38	--	42,12	24	20	7	44,98	10	32	6	40,7	14	26	4	35	15	23	7
Gender																						--		--																
Women	36	14	25	4	47	18	30	10	46	12	36	14	13	6	9	1	32	12	21	8	52	--	36	--	41	21	24	8	44	8	35	6	41	12	29	3	36	13	26	7
Men	39	23	12	3	49	23	24	10	48	14	35	17	16	7	6	1	35	11	20	7	49	--	39	--	44	27	16	6	46	12	29	7	41	15	24	4	37	16	21	7
Age																																								
16-25	48	25	17	8	60	26	31	16	43	18	22	17	18	12	4	1	43	28	13	13	41	--	15	--	49	25	25	9	51	11	32	11	33	16	13	6	42	20	20	10
26-35	46	23	25	3	52	21	27	13	56	17	42	18	17	7	9	1	46	15	30	9	57	--	43	--	50	31	23	7	51	11	39	6	47	14	32	5	43	17	28	8
36-45	40	17	24	3	51	23	31	9	52	13	43	16	18	5	12	2	39	9	29	9	61	--	52	--	44	25	19	8	54	11	41	8	45	12	32	5	41	15	29	7
46-55	31	12	16	3	43	16	28	7	47	9	39	16	11	3	7	1	28	7	18	6	57	--	50	--	39	20	20	7	41	10	31	4	44	15	30	2	34	12	24	6
56-65	17	11	5	2	28	17	11	2	24	6	20	9	3	1	2		9	3	4	2	35	--	28	--	25	15	11	4	21	7	12	2	27	10	17	1	18	9	10	3
Education																																								
Less than upper secondary	26	14	10	2	38	15	19	8		7	17	7	8	3	4	0	12	5	5	2	35	--	23	--	20	13	8	3	34	7	24	4	14	4	7	2	22	9	12	4
Upper secondary	44	21	21	4	51	24	28	11	44	11	32	13	21	6	12	2	36	13	22	7	52	--	37	--	45	26	22	8	53	12	37	9	32	9	20	3	40	16	24	7
Higher than upper secondary	53	23	33	6	65	29	41	13	65	20	53	26	34	18	16	2	74	20	52	22	67	--	56	--	56	31	29	8	71	19	52	11	63	23	43	6	58	23	40	12

Prose literacy level																																
Level 1	22	12	6	5	30	13	10	10	15	3	7	8	8	2	5	1	15	6	8	3	29	--	17	--	22	14	9	2	21	4	13	3	14	4	8	2	17	7	8	4
Level 2	30	14	13	3	36	14	20	8	39	10	27	14	15	6	8	1	41	13	26	10	41	--	30	--	36	19	17	5	34	8	24	5	31	8	19	3	31	11	19	6
Level 3	42	21	21	3	56	25	32	10	51	14	40	16	23	12	10	1	62	22	39	15	52	--	40	--	52	30	26	9	58	13	43	8	48	16	31	4	47	19	30	8
Level 4/5	54	25	31	6	68	31	44	12	64	21	51	22	41	28	17	1	75	29	43	14	60	--	44	--	64	39	28	15	74	20	55	11	64	25	45	5	59	27	39	11
Occupation																																								
Blue-collar low-skill	29	13	16	2	36	9	24	7	37	8	25	11	11	3	9		18	5	12	3	39	--	28	--	28	15	11	5	37	5	28	3	22	6	14	2	26	8	17	5
Blue-collar high-skill	40	12	25	4	41	19	22	8	43	15	30	14	10	2	6	1	25	8	14	6	42	--	31	--	36	19	18	5	37	7	28	4	29	6	22	0	30	11	21	5
White-collar low-skill	43	22	21	3	54	23	31	9	47	14	35	15	18	7	11	1	47	17	31	7	52	--	39	--	44	26	20	5	58	13	43	8	44	13	28	5	42	17	27	7
White-collar high-skill	48	18	33	4	69	30	48	14	63	16	55	20	38	15	22	2	68	18	51	16	68	--	59	--	56	30	32	12	69	14	56	7	65	22	48	5	58	21	43	10

Notes:
1. Total AET
2. Self- or family-supported
3. Employer-supported
4. Government-supported
-- indicates that data are not available.

Source: IALS, 1994-1998.

participation in AET. This is because employer-supported AET makes up the majority of the total AET. Overall, workers who are older, less-educated, less-skilled and in low-skill occupations are the least likely to receive employer-sponsored AET. Accordingly, the above discussion on financial support and on incentives to invest, including market imperfections, are likely to play an important role in explaining some of these observed inequalities in AET.

What is the interaction between demand for and supply of employer-supported AET?

An analysis of the interaction between demand for and supply of AET reported by the OECD (2003*b*: 249-253) is revealing in this regard. The findings are based on the IALS data and are summarized here. Women and immigrants tend to face reduced opportunities to benefit from employer-supported AET, while their demand for those opportunities is not necessarily lower than that of their counterparts. In contrast, older workers tend to show a low demand for AET, although the supply of opportunities appears to be primarily targeted towards prime-age employees. As expected, the demand for AET among those with higher levels of education appears to exceed the available supply of opportunities. On the other hand, those with higher literacy skills appear to benefit from more employer-supported opportunities. This is consistent with the suggestion that the IALS literacy measure reflects more information about individual histories than level of educational attainment, which employers use to sort more able employees into better career and training opportunities. By contrast, adults with low levels of education have a low demand. The type of occupation appears to have little influence on demand, while the supply is estimated to increase with the degree of skill intensity required on the job. Finally, the analysis also reveals that part-time and temporary workers face few opportunities for employer-supported AET, and also confirms the limited supply of opportunities for workers in small firms.

People also invest in AET for non-economic purposes and there are social benefits associated with AET…

The above discussion is to a large extent limited to AET-related market failures that are relevant to investment in competencies for the labour market. But people and society invest in AET for other

purposes, such as for health as well as civic and social engagement reasons. The following is a list of social benefits that may be linked to AET: less violence and abuse; fewer accidents; fewer diseases; increased public health; political stability; social cohesion; social inclusion; better social action and democratic participation; better institutions; effective communication; transfer and dissemination of knowledge; less crime and injustice, and accordingly a well functioning economy with higher tax revenues; sustainable and quality economic growth; and possible public savings on health, security, law enforcement and the judicial system. These are potential benefits that can accrue to society as a result of investing in AET, but evidence for or against this is scarce, mostly because they are difficult, if at all possible, to measure within a coherent framework.

… these justify government intervention in the provision and support of AET

In general, the benefits (or negatives) that arise but do not necessarily accrue to individuals (or firms) making decisions to invest are sometimes referred to as 'side effects'. They are *side* effects because they are not necessarily taken into account when making an investment or allocation decision. Side effects include social benefits, namely outcomes that do not necessarily benefit the decision-maker alone, but also many other persons. The presence of social benefits implies market failure and provides justification for public policies that, for example, support AET and other adult learning. Otherwise there may be an under-investment in adult learning. An important limitation that arises in this context is the imperfect information that policy-makers have regarding the full extent of social benefits associated with AET. There is considerable uncertainty regarding the existence and magnitude of payoffs to AET, and more broadly to education. Nevertheless, it is widely perceived that education and AET are associated with substantial benefits, and warrant large public subsidies. Finally, it is well accepted that questions about policy support for education and AET have to be addressed on the basis of imperfect information. But recent trends in the growth of education raise the importance for decision-makers, both public and private, to obtain access to more holistic information about the costs and benefits.

What is the extent of government support?

Thus, government intervention in the provision and support of AET is justified on two grounds: First, regarding the distribution and equality of access to AET opportunities; and second, to limit possible under-investment due to market failures and other externalities. The two are related, since under-investment is likely to be most prevalent among those who have the least access to AET opportunities. The extent to which governments play a role in supporting AET in various countries can be seen from *Table 2.7*. Overall, government support is the least common source of financial support. There are signs, however, that borders between public- and private-sector AET are fading. For example, firms can in some cases obtain the use of public training facilities (OECD, 2003*a*: 55-58).

Who receives government support?

The IALS data show the extent to which government support reaches adults in vulnerable groups, such as adults who are women, older, less-educated, less-skilled, or in low-skill occupations. It can be seen from *Table 2.7* that, in fact, government support tends to benefit those who already display high rates of participation, namely: younger adults; the higher-educated and higher-skilled; and those who are in white-collar high-skill occupations.

Engagement in and demands placed by daily life factor

People engage in multiple contexts over the lifespan

While the world of work forms an important part of daily life for many and is a major incentive for continued learning, people in fact engage in multiple contexts over the lifespan, including the home, family, school, community and leisure. These contexts also place demands on individuals in terms of competency requirements, and can play an important role in creating incentives for people to engage in adult learning. The need to acquire and develop various economically and socially relevant competencies, however, strongly depends on individual choices and lifestyles, which are in turn conditioned by various social and cultural practices, not to mention values. Naturally, these vary substantially across countries, regions, languages and cultures. The following paragraph considers some daily life activities that are common and/or becoming pervasive in

most societies, including reading practices outside work, community engagement, and the use of ICTs. Some of the observed empirical associations between participation in AET and engagement in these activities are presented.

Engagement in and demands placed by daily life

It can be inferred from *Table 2.8* that AET is strongly associated with reading practices. According to the ALL data, people who read less, both in terms of frequency and variety, are much less likely to participate in AET compared to those who frequently read a wide variety of materials. Differences in participation between below- and above-average readers can be two to four times lower or higher. This makes sense, since in many ways reading is part of learning. Reading can itself be considered an informal learning activity. Additionally, organized forms of learning are often text-based, which requires literacy but also develops literacy and, in turn, reading practices. It can be seen from *Table 2.8* that the relationship is identical with regard to visiting the library and bookstores. Thus, people who are interested in reading also tend to be interested in learning, including AET. A similar pattern emerges when community engagement is considered: The data show that adults who participate in AET more often also tend to participate in a wider variety of community groups and organizations. This is an indication that engagement in the community may create a need for individuals to acquire and develop competencies in AET settings.

Demands placed by penetration of ICTs

Finally, the ALL data show that the use of, and attitude toward, ICTs are strongly connected to participation in AET. This is significant considering the increasingly widespread diffusion and use of ICTs, including the personal computer and the Internet. This is a fairly recent phenomenon (since the early 1990s) and while the introduction and penetration of ICTs is at different stages in different parts of the world, it is a major source of change on many fronts that has the potential to bring about continued and profound economic and social transformations. In fact, the phenomenon has brought to the fore the notion that ICT skills are necessary to function in today's world. As an example, many governments are nowadays aiming to deliver public services via the Internet, including, among others,

access to health and other welfare services. This is an example of another demand for competency created by daily life, and in which AET can play a role. It also points to a potential new mode of social exclusion.

Life situation, readiness and barriers factor

There are a number of barriers to participation in AET

Adults' readiness to participate in AET is strongly related to the value ascribed to learning, but readiness itself does not imply actual participation. There are a number of barriers that can lead to non-participation, even though the learner may want to participate. Research results suggest that there are three broad types of barriers as follows: (1) situational (e.g. obstacles arising from one's situation in life at a given time); (2) institutional (e.g. practices and procedures that discourage or prevent participation); and (3) dispositional (e.g. attitudes and self-perceptions about oneself as a learner) (Cross, 1981; Rubenson, 1999). In *Table 2.9* data is presented on the percentage of adults who wanted to participate in AET in the year preceding the interview, but were hampered from doing so by one of the three barriers mentioned above.

Adults need to see a purpose or reason for taking AET and it should be relevant to their life situation

People first need to see a purpose or reason for participating in AET, and this presumably relates to their life situation. Generally, the underlying reasons for participating involve the desire to improve one's own life, including one's working, family and social conditions. Learners may however find their reasons for participating difficult to articulate and they might not always be aware of them all (Darkenwald and Merriam, 1982: 136; Rubenson, 2001). Further, even a temporary lack of a specific reason may be seen as a reason to participate, since the activity itself can be a way to obtain or rediscover new goals that could be pursued (Courtney, 1992: 87). In most cases, AET occurrences are likely to be linked to a perceived need to fulfil some sort of internal and/or external demands for competencies. But the manner in which demands for competencies are perceived can vary according to different lifestyles, current life situations and age (e.g. younger, older, senior).

Table 2.8 Percentage of adults participating in AET during the year preceding the interview, by various engagements in daily life, populations aged 16 to 65, 2003

	Bermuda	Canada	Italy	Norway	Switzerland	United States
			Participation rate			
Index of frequency and variety of reading in daily life						
Never	n	14.4	3.2	n	n	n
Some reading, little variety of materials	16.5	29.0	8.7	22.8	22.9	21.7
Average reading, average variety of materials	32.0	41.0	18.1	39.1	45.2	44.0
Above average reading, wide variety of materials	55.9	60.4	40.8	59.9	62.3	66.1
Index of frequency of visiting library and bookstores						
Never	23.2	31.8	8.9	33.1	36.8	26.5
Once or twice during the year	39.7	47.4	23.3	46.0	56.4	53.2
Several times during the year	54.1	58.9	37.7	57.1	61.7	66.3
Monthly	70.7	64.2	51.6	69.1	71.4	69.0
Weekly	67.1	68.3	64.5	79.0	77.2	71.7
Index of variety of engagement in community groups/organizations						
Rarely or never	37.1	43.7	16.8	45.3	52.0	41.7
Below average variety	52.2	59.2	36.3	58.4	61.4	62.6
Average variety	63.9	67.7	40.0	68.8	70.5	74.6
Above average variety	73.3	71.0	59.7	83.0	80.3	77.2
Index of variety of engagement in community groups/organizations as volunteer						
Rarely or never	38.3	44.2	20.4	50.5	53.3	45.1
Below average variety	51.2	57.0	33.7	57.2	59.8	59.8
Average variety	58.4	65.9	39.4	67.6	66.6	71.3
Above average variety	70.5	71.7	36.4	80.5	74.1	79.1
Index of perceived usefulness and attitude toward computers						
Strongly negative	n	37.7	13.9	34.6	39.5	n
Negative	29.6	47.3	31.3	48.1	56.1	48.6
Positive	57.4	64.1	41.9	65.1	68.9	66.9

Table 2.8 (continued)

	Bermuda	Canada	Italy	Norway	Switzerland	United States
			Participation rate			
Strongly positive	68.6	71.0	50.1	75.9	71.1	80.7
Index of frequency and variety of Internet use						
Never	17.4	21.7	9.1	25.9	28.0	26.3
Some use with few purposes	48.7	69.8	45.5	61.3	66.6	63.2
Average use with average number of purposes	76.3	78.5	47.1	75.6	73.6	75.0
Above average use for wide diversity of purposes	n	n	n	n	n	84.3
Frequency of searching for government information using Internet						
Never	45.5	47.2	20.0	45.7	56.7	51.0
A few times a month	65.9	66.2	40.7	67.0	68.1	71.2
A few times a week	66.4	65.0	46.7	76.2	70.5	75.2
Daily	68.9	70.6	55.2	74.3	73.1	81.0
Frequency of searching for health related information using Internet						
Never	40.2	48.1	21.3	53.2	57.5	50.6
A few times a month	61.8	62.6	41.2	65.3	63.8	69.7
A few times a week	65.1	65.9	42.4	75.4	69.9	63.7
Daily	64.5	55.1	44.3	89.6	81.6	74.7

Notes: n = unreliable estimate due to small sample size.

Source: ALL Survey, 2003.

The dominant motives related to working life situations

In relation to working life, for instance, one's motive to participate may depend very much on one's situation, i.e. whether one is at an early or late stage of one's career. As reported in the section on *Participation in adult learning for job- versus non-job-related reasons* (p. 43), even when a variety of motives are considered, adults overwhelmingly attribute the potential benefits of learning to improving the chances of enhancing their working life conditions, such as obtaining a more desirable job or earning a higher salary. In fact, those who participate for job-related reasons indicate that a strong motivating factor is the prospect of upgrading their competencies for current as well as other tasks that may be

involved in present or future jobs (OECD, 2003*a*; Chisholm, Larson and Mossoux, 2004: 62).

Different life situations of younger and older workers

Indeed, it can be seen from the results of the Eurobarometer data presented in *Table 2.10* that job-related reasons to participate vary according to different individual characteristics such as age, gender, level of education and employment status. Young adults from the European Community who have not yet entered the labour market or are temporarily unemployed are more likely to participate to obtain formal recognition (e.g. a certificate, diploma or qualification). This is not surprising since additional recognition may increase their chances of entering or re-entering the labour market and hence their employability. Even when other factors are taken into account, adults aged 16 to 25 are about seven times more likely than late-career adults aged 55 to 64 to perceive AET as way of helping them to find a job. This falls to about four times for adults aged 25 to 34 and 2.5 times for adults aged 35 to 44. In contrast, mid-career adults aged 45 to 55 are the most likely to participate in the hope of securing their job and being better prepared to face changes in working conditions (i.e. due to the expansion of ICTs or the redefinition of job roles and tasks).

Different employment situations and participation

Improving employability is especially important among adults who are unemployed or out of the labour market but would like to work. Results indicate that over six out of ten unemployed adults in the European Community participate in AET in order to increase their chances of finding a job. Similarly, four out of ten homemakers also wish to participate for this reason. Over 40 per cent of unemployed adults also report job-changing as a reason for participating, implying that they were recently employed but are now in the process of looking for another job and that they perceive AET as a way of helping them to obtain one. Separately, participating for job-advancement reasons is the most common motive reported in *Table 2.10*. Early- to mid-career-aged adults, men, those with a higher level of education and the self-employed are the most likely to report this latter reason as their motivation to participate.

Table 2.9 Percentage of adults who wanted/needed but were not participating in AET, by various reasons, populations aged 16 to 65, 1994-1998

	Australia		Belgium (Flanders)		Canada		Chile		Czech Republic		Denmark		Finland		Hungary		Ireland	
	Job-related n=1.997	Non-job-related n=1.970	Job-related n=351	Non-job-related n=340	Job-related n=1.151	Non-job-related n=1.012	Job-related n=774	Non-job-related n=798	Job-related n=420	Non-job-related n=298	Job-related n=858	Non-job-related n=655	Job-related n=831	Non-job-related n=767	Job-related n=250	Non-job-related n=183	Job-related n=393	Non-job-related n=440
Total	**25.1**	**24.2**	**15.4**	**15.7**	**29.6**	**30.6**	**27.0**	**28.1**	**13.6**	**9.5**	**30.2**	**23.2**	**31.6**	**29.4**	**11.2**	**8.0**	**18.0**	**19.6**
Situational	**59.6**	**68.3**	**74.9**	**80.1**	**64.4**	**77.6**	**63.5**	**64.5**	**75.1**	**75.8**	**57.4**	**67.9**	**61.5**	**69.8**	**53.1**	**60.0**	**56.2**	**66.9**
Lack of time	37.6	55.3	54.8	69.5	43.9	62.4	41.9	45.8	48.7	58.7	27.2	55.1	33.1	52.9	26.7	44.1	29.5	43.7
Too busy at work	11.3	8.4	13.7	8.1	12.3	15.6	14.4	13.4	40.5	42.8	25.0	16.4	20.2	14.7	18.0	24.7	12.0	10.2
Family responsability	13.2	11.7	9.8	14.4	18.9	15.4	11.0	15.3	19.0	31.5	5.7	14.7	10.2	16.3	12.1	12.0	17.3	18.7
Lack of employment support	4.9	0.0	4.6	0.2	3.8	0.4	7.1	2.2	23.3	9.9	14.1	0.2	14.5	1.1	18.5	3.1	3.2	0.2
Institutional	**36.9**	**30.9**	**19.4**	**14.5**	**46.5**	**31.2**	**43.3**	**40.2**	**71.8**	**61.9**	**31.6**	**24.9**	**49.0**	**35.1**	**56.4**	**46.9**	**48.1**	**34.7**
No money	24.1	21.7	6.5	5.6	31.6	22.1	31.8	29.2	23.9	36.8	11.3	8.9	17.3	12.4	39.3	33.8	23.7	16.8
Course not offered	6.3	3.6	3.3	5.0	9.3	4.4	5.2	5.3	31.9	16.1	8.5	5.0	21.1	9.3	8.0	7.1	17.6	10.4
Lack of qualification	2.0	0.8	1.5	0.5	3.2	0.2	1.6	1.2	11.1	5.8	4.5	0.9	2.5	1.1	3.0	1.0	2.5	0.5
Inconvenient time	6.4	5.5	8.4	4.0	9.7	6.4	7.0	6.7	28.4	28.8	9.2	10.8	14.7	15.7	10.9	8.4	7.6	7.8
Dispositional	**4.7**	**6.3**	**3.0**	**2.9**	**3.0**	**3.6**	**2.9**	**4.5**	**12.1**	**8.8**	**3.8**	**6.6**	**4.4**	**7.0**	**5.0**	**9.0**	**3.7**	**4.9**
Language reasons	0.8	0.7	2.3	1.6	0.9	0.1	0.0	0.0	8.0	3.8	0.1	0.0	0.5	0.5	0.6	0.6	0.4	0.2
Health	3.9	5.6	0.8	1.7	2.2	3.6	2.9	4.5	4.5	5.4	3.7	6.6	3.9	6.6	5.0	8.5	3.3	4.6
Other	19.8	11.9	14.0	9.6	13.0	6.3	9.6	8.6	9.3	10.6	26.9	14.5	14.3	10.7	17.7	8.4	0.9	0.0

Table 2.9 (continued)

	Italy		Netherlands		New Zealand		Norway (Bokmål)		Poland		Slovenia		Switzerland		United Kingdom		United States	
	Job-related n=562	Non-job-related n=686	Job-related n=532	Non-job-related n=590	Job-related n=1.008	Non-job-related n=918	Job-related n=1.008	Non-job-related n=954	Job-related n=353	Non-job-related n=242	Job-related n=573	Non-job-related n=394	Job-related n=1.083	Non-job-related n=1.301	Job-related n=1.282	Non-job-related n=1.003	Job-related n=644	Non-job-related n=486
Total	**17.4**	**21.5**	**18.3**	**20.4**	**32.0**	**28.6**	**30.2**	**31.7**	**12.2**	**8.1**	**22.4**	**15.4**	**25.2**	**31.3**	**22.0**	**18.5**	**23.2**	**17.8**
Situational	**73.0**	**79.7**	**61.1**	**71.9**	**71.7**	**79.4**	**60.2**	**67.6**	**56.5**	**62.2**	**63.1**	**64.8**	**62.2**	**76.0**	**60.4**	**69.5**	**67.8**	**76.7**
Lack of time	53.0	66.2	44.2	65.1	50.5	65.9	37.8	57.3	35.3	51.0	43.0	53.8	44.1	60.4	29.3	49.8	44.7	60.2
Too busy at work	33.6	27.8	12.0	7.3	40.9	38.7	18.7	10.8	14.6	14.0	13.6	10.5	15.6	21.3	18.8	19.2	17.2	15.4
Family responsability	16.0	24.9	6.2	8.6	34.4	40.1	8.5	8.3	16.5	14.6	13.4	15.7	10.5	13.0	15.2	18.5	18.3	17.3
Lack of employment support	8.9	1.6	6.6	0.2	10.7	3.0	7.2	0.2	10.8	3.4	12.3	3.7	6.9	0.8	14.9	1.6	6.2	0.1
Institutional	**41.5**	**33.2**	**32.3**	**22.7**	**66.4**	**56.8**	**38.9**	**26.6**	**50.0**	**54.7**	**50.0**	**46.2**	**31.2**	**22.6**	**50.1**	**34.3**	**46.6**	**34.3**
No money	18.8	14.8	17.9	16.2	39.2	32.5	16.9	12.6	32.7	40.1	31.2	22.7	14.5	10.3	23.2	18.1	34.0	26.2
Course not offered	13.8	7.0	6.4	3.1	14.0	9.0	15.7	7.0	14.4	13.3	14.1	17.1	13.1	4.1	15.1	6.1	4.9	2.4
Lack of qualification	4.9	2.6	2.5	0.7	8.6	3.6	2.3	0.6	1.8	1.4	1.6	1.9	1.8	0.8	3.7	0.2	1.3	0.0
Inconvenient time	13.9	12.6	6.7	3.8	29.9	29.7	5.9	7.3	6.5	5.9	6.6	8.5	5.9	9.6	14.0	12.9	8.7	6.6
Dispositional	**2.1**	**2.6**	**4.2**	**3.7**	**6.3**	**7.4**	**4.3**	**7.6**	**4.0**	**4.6**	**5.1**	**6.2**	**4.7**	**6.0**	**5.8**	**5.5**	**2.9**	**4.1**
Language reasons	1.3	0.0	0.5	0.1	2.1	1.6	0.6	0.4	0.3	0.4	0.0	0.4	0.8	0.9	0.8	0.2	1.0	0.4
Health	0.9	2.6	3.7	3.6	4.4	5.8	3.8	7.3	3.8	4.1	5.1	5.8	3.8	5.0	5.0	5.3	1.9	3.7
Other	**13.3**	**9.2**	**12.8**	**11.5**	**14.8**	**8.5**	**14.4**	**12.5**	**17.4**	**14.2**	**4.6**	**4.6**	**17.1**	**11.1**	**11.9**	**11.0**	**8.2**	**4.5**

Source: IALS, 1994-1998.

Table 2.10 Percentage of adults participating in AET and adjusted odds ratios showing the likelihood of participating in AET for different reasons during the year preceding the interview, by various classification variables, pooled EU-15 plus Iceland and Norway, population aged 16 to 64, 2003 (1)

			Reasons for participating in AET (3)													
			Job-finding		Job-keeping		Job-advancement		Job-changing		General knowledge		Personal		Social	
	%	N	%	adj. odds (2)	%	adj. odds(2)	%	adj. odds(2)	%	adj. odds (2)	%	adj. odds(2)	%	adj. odds(2)	%	adj. odds(2)
Age																
16-24	10.0	1, 306	57.0	6.8***	8.1	1.3	54.0	0.6***	30.6	5.6***	24.7	0.6**	29.4	0.3***	12.8	1.3
25-34	23.3	3, 051	45.0	4.1***	7.4	1.4	65.1	0.9	20.6	3.4***	23.7	0.5**	33.8	0.4***	10.5	1.1
35-44	25.0	3, 274	33.3	2.5***	8.7	1.6	67.6	1.1	21.0	3.5***	28.7	0.7*	35.5	0.4***	11.6	1.2
45-55	22.2	2, 903	22.4	1.5	9.9	2.1	68.4	1.3	14.1	2.2**	30.4	0.7	47.9	0.7*	8.9	0.8
55-64	19.4	2, 540	16.7	1.0	3.9	1.0	51.4	1.0	7.3	1.0	38.5	1.0	63.9	1.0	17.3	1.0
Gender																
Women	53.0	6, 926	35.8	1.0	7.1	0.9	57.1	0.8**	19.0	1.0	30.4	1.1	45.9	1.4**	14.0	1.5***
Men	47.0	6, 148	36.2	1.0	8.6	1.0	68.7	1.0	19.8	1.0	26.1	1.0	34.3	1.0	9.4	1.0
Education																
Less than upper secondary	20.1	2, 631	31.4	1.0	8.6	1.0	54.3	1.0	14.4	1.0	26.3	1.0	49.1	1.0	13.8	1.0
Upper secondary	47.1	6 ,160	38.8	0.9	8.8	0.9	60.8	1.1	22.7	1.3	27.0	1.3	36.2	0.8	11.7	0.9
Higher than upper secondary	32.8	4, 283	33.5	0.9	6.4	0.7	69.2	1.4*	16.3	1.0	30.4	1.5*	42.0	1.0	10.8	0.9

Employment status																
Unemployed	8.7	1, 131	65.6	1.0	6.5	1.0	37.3	1.0	43.1	1.0	26.1	1.0	31.4	1.0	15.7	1.0
Employed	58.7	7, 676	33.6	0.3***	9.9	1.9*	73.7	4.6***	16.9	0.3***	26.0	0.9	35.6	1.1	8.7	0.5***
Self-employed	10.0	1, 313	28.3	0.3***	2.1	0.4	67.6	2.9***	20.7	0.5**	33.1	1.2	46.9	1.5*	13.0	0.8
Retired/unable to work	10.6	1, 385	12.7	0.1***	--	0.0	10.9	0.2***	13.0	0.5	44.4	1.6	81.5	5.1***	37.0	3.5***
Homemaker	12.0	1, 569	43.3	0.4**	--	0.00	--	0.0	13.2	0.2***	41.8	1.8*	70.3	4.1***	23.1	1.3
Total		13, 074	36.0		7.9		63.2		18.4		28.1		39.8		11.6	

(1) Estimates are based on the respondents representing the adult population aged 16-64, excluding those who are still full-time students.
(2) The variables included in the adjusted odds models are age, gender, education, employment status and country of residence.
(3) **Job-finding**: to obtain a certificate, diploma or qualification; to get a job. **Job-keeping**: to be less likely to lose my job / to be less likely to be forced into retirement. **Job-advancement**: to be able to do my job better; to be able to take greater responsabilities / increase my chances of promotion. **Job-changing**: to change the type of work I do altogether, including starting my own business; to improve my chances of getting another job, including one which will suit me better. **General knowledge**: to increase my general knowledge. **Personal**: to better enjoy my free time / retirement; to better manage my everyday life; to achieve more personal satisfaction. **Social**: to meet new people.
* p<.10 ** p>.05 *** p<.01 level of statistical significance.
Source: Eurobarometer, 2003.

Other important motives related to life situations that are not work-related

The data presented in *Table 2.10* shows the extent to which adults participate for reasons related to other spheres of life, such as personal and social development. While the IALS findings reported in the section on *Participation in adult learning for job- versus non-job-related reasons* (p. 43) indicate the dominance of the former over the latter, it was also stated that whatever the reasons, they are often interrelated, and participating for one reason does not preclude the application of what is learned in other contexts. Further, it was suggested that the Eurobarometer data allow for a more detailed picture of the underlying motives behind individual decisions to participate. From *Table 2.10,* it can be inferred that adults participate for reasons of developing their general knowledge, achieving greater personal satisfaction, better enjoying their free time or retirement, as well as better managing their everyday life, almost to the same extent as helping them to find a job. But the reasons are not necessarily mutually exclusive, since people were asked to provide up to three motives for participating. Additionally, pursuing social goals such as meeting new people, while less common, is reported on average by about one out of every ten adults.

Motives for participating for non-job-related reasons also depend on the life situation; for example, nearly 50 per cent of adults aged 44 to 55 and 60 per cent of those aged 55 to 64 in the European Community attribute greater importance to improving their general knowledge. Women tend to show a higher interest in participating for non-job-related reasons. Finally, it is not surprising that adults who are not in the labour market (e.g. those unable to work, retirees or homemakers) are especially likely to perceive AET as a way to accomplish personal and social goals. This highlights the need to investigate better the AET needs of certain groups, including the over-65 age group.

Participation in AET is related to life changes.

Closely connected to the life situation are life changes that occur over the lifespan, including those that occur in private as well as public life, such as getting married, having a child, starting work, getting divorced, retirement, etc. Research suggests that such changes can

Table 2.11 Percentage of adults participating in AET and adjusted odds ratios showing the likelihood of participating in AET for different reasons during the year preceding the interview, by recent changes occurred in life, pooled EU-15 plus Iceland and Norway, 2003 (1)

			Reasons for participating in AET (2)								
			Job-related goals			Personal goals			Social goals		
	%	N	%	odds	adj. odds (3)	%	odds	adj. odds (3)	%	odds	adj. odds (3)
A. Population aged 16-64											
Change of job (4)	30.0	3 825	93.9	3.3***	1.8**	48.3	0.6***	0.7***	4.5	1.3	1.1
Career break (5)	10.9	1 410	85.7	0.9	1.0	57.1	0.9	1.0	5.8	1.6**	1.2
Loss of job (6)	6.2	801	92.1	1.8*	3.3*	50.4	0.8	1.0	4.5	1.2	0.7
B. Population aged 16 and over											
Retirement (7)	5.8	942	26.0	0.1***	1.0	92.0	8.8***	1.0	4.4	1.3	1.2
Looking after someone full-time (8)	12.9	2 076	79.1	0.8	1.2	68.2	1.6**	1.4*	5.3	1.6**	1.4*
Community engagement (9)	8.1	1 304	76.7	0.7**	0.9	68.8	1.7**	1.5***	11.2	4.0***	4.0***

Notes:
(1) Estimates exclude those who are still full-time students
(2) **Job-related goals**: to obtain a certificate; diploma or qualification; to get a job; to be less likely to lose my job / to be less likely to be forced into retirement; to be able to do my job better; to be able to take greater responsabilities / increase my chances of promotion; to change the type of work I do altogether, including starting my own business; to improve my chances of getting another job, including one which will suit me more. **Personal goals**: to increase my general knowledge; to better enjoy my free time / retirement; to better manage my everyday life; to achieve more personal satisfaction. S**ocial goals**: to meet new people.
(3) The variables included in the adjusted odds models are age, gender, education, employment status and country of residence.
(4) Reference category: no change of job (odds = 1)
(5) Reference category: no career break (odds = 1)
(6) Reference category: no loss of job (odds = 1)
(7) Reference category: no retirement (odds = 1)
(8) Reference category: no looking after someone full-time (odds = 1)
(9) Reference category: no community engagement (odds = 1)
* p<.10 ** p>.05 *** p<.01 level of statistical significance.
Source: Eurobarometer, 2003.

have substantial impacts on individuals' motivations for participating in AET (Merriam, 1994; 2005). Specific life events, such as moving to a new job, getting married or divorced, moving to a new location, or recovering from personal injuries or illness have been found to affect adults' decisions to participate (Aslanian, 2001).

The Eurobarometer data allow for further exploration of these relationships. *Table 2.11* indicates that specific life events occurring during the two years preceding the interview could have had an impact on the motives of the interviewees to participate in AET. Life changes related to employment are very common and include moving to a new or different job, with a progression or regression in career terms, as well as starting a different career or becoming self-employed, not to mention the loss of a job without being able to find a new one. Adults faced with such recent changes are more likely to view AET as an opportunity to improve the conditions of their working life. In particular, even after adjusting for gender, age, level of education and employment status, results indicate that those who have recently lost a job and are having difficulty re-entering the labour market are more likely to engage in job-related AET than those who are employed. In contrast, older, recently-retired adults as well as those who have started looking after someone on a full-time basis (i.e. a child, or a sick or elderly relative) are more likely to participate for non-job-related reasons, especially those associated with pursuing personal goals such as better enjoying and managing everyday life.

Lack of time is a major situational barrier.

The time available for learning or the time that adults set aside for learning depends on their life situation. In general, lack of time is a major barrier to participating in AET (OECD, 2003*b*: 253). Indeed, according to the IALS data presented in *Table 2.9*, it is the most significant barrier reported by adults. Although reported as a situational barrier in the table, it may also be considered an institutional barrier, since the scheduling of AET provision has implications on the availability of individuals. Further, from a situational point of view, reasons for non-participation due to 'lack of time' can be problematic because it is a vague concept (Rubenson, 1999; 2001). For example, the value ascribed to learning will affect

a person's perception of whether they have time for it or not. Thus, it is a matter of setting priorities in one's life. Overall, such a reply does not allow for a clear understanding of the reasons why people do not have time to participate.

Balancing time between work and family life and learning

In contrast, a busy workload and family responsibilities are more telling barriers that are associated with time constraints. *Table 2.9* shows that these are also commonly reported barriers. In general, women tend to report family responsibilities as a barrier more often than men (OECD, 2003*b*).

Adults receiving external support are more likely to engage in AET.

Turning attention to institutional barriers, the broader social and external environments play an important role in facilitating or obstructing participation (Darkenwald and Merriam, 1982: 144). For example, many adults who would like to participate do not do so because of lack of support, both in a financial and non-financial sense. The section on *Financial support and incentive to invest factor* (page 77) underscores the point that a lack of external economic support (i.e. from employers or government), especially for disadvantaged groups, is a significant barrier to participation in AET. Among many IALS countries, as can be seen in *Table 2.9*, the response 'no money' is the second most common reason stated for not participating in a course.

The AET supply does not always suit the needs of adult learners.

It is also important for educational planners to recognize that the AET opportunities available may not always suit the learner, which can lead to a different set of institutional barriers. Overall, there is a tendency in many countries to place a strong emphasis on the standardization of AET provision in order to offer equal access opportunities. At the same time, very little attention has been paid to diversified AET provision that is better suited to the variety of adult learning needs (OECD, 2005).

There can be a mismatch between the demand and the supply.

In particular, under- or overestimation of learning needs, or in other words a mismatch between the demand for learning and

the supply of learning opportunities, can occur. In the case of underestimation, actual needs may be at a higher level than what is offered, but due to lack of recognition of prior learning, adults may be required to participate at a lower level than is necessary. This is particularly the case of AET efforts that focus on homogeneous provision aimed at an extended audience, rather than heterogeneous provision that is target-oriented. In general, an underestimation of the heterogeneity of adult learners when planning AET provision can lead to non-participation (OECD, 2005). For example, the content of the programmes may not be sufficiently attractive for many adults, there may be an inappropriate time schedule, or the location of provision may not be convenient. This is common among ad hoc learning programmes or schemes that are tailored for specific target groups, but do not take into account heterogeneity within groups.

In the case of overestimation, actual needs may be lower than what is required. This may involve a conflict between the external demands for or pressure to take AET and the value attributed by the individual to specific competencies. The conflict is exacerbated when the potential benefits of learning are not perceived as relevant by the learners in relation to their current life situation. Separately, in addition to having different needs, adults learn in different ways. According to the Eurobarometer data, some adults ascribe higher value to learning that occurs informally rather than in formal settings (Chisholm *et al.*, 2004). For example, adults who have had bad pedagogical experiences in formal settings (i.e. compulsory schooling) are more likely to stay away and ascribe higher value to other ways of learning.

In view of the new urgency to develop a better understanding of why some adults participate and others do not, more attention should be paid to better defining the specific learning needs of individuals as well as recognizing the impact of non-formal and informal learning on overall participation in adult learning (Rubenson, 2001).

Dispositional barriers

Finally, there is a set of dispositional barriers that play a crucial role. These relate to a low readiness to learn, particularly with regard to a lack of cognitive and non-cognitive competencies that are thought to be important for engaging in further learning.

For example, low self-confidence in one's learning capacities can be a major barrier to participation. It was suggested in the above discussion that low levels of education and skills could be linked to a low readiness to learn, and hence dispositional barriers. This issue is more complex however, since together, knowledge, skills and dispositions relate to the concept of competencies (Rychen and Salganik, 2003). Accordingly, more attention should be paid to understanding better the relationship between personal dispositions, competencies and learning behaviours.

III. Conclusions and implications for research and policy

Principal findings

A comparative analysis of adult learning patterns is only possible among a limited number of countries, namely developed countries. This is because there is a lack of a comparative information base for developing and middle-income countries. For countries that have comparative data available, the main findings regarding patterns of overall participation in adult learning are as follows:

- Different countries show very different participation rates, according to which they can be divided into four groups: those with a participation rate (i) close to or exceeding 50 per cent; (ii) between 35 and 50 per cent; (iii) from 20 to 35 per cent; and (iv) below 20 per cent.
- A more comprehensive measure of AET, which factors in the incidence and duration of occurrences, reveals that some countries follow a more extensive model of AET provision, in which a fairly low volume is provided to a large number of adults, while other countries follow a more intensive model in which AET provision is concentrated on a small number of people.
- In all countries, the primary motive for participating in AET is job-related. At the same time, it is clear that there are multiple and interrelated motives for participating, and therefore it is not so easy to distinguish between motives that are either job-related or non-job-related.
- Higher education is playing an increasingly important role in adult learning. Thus, the degree to which higher education systems are open to non-traditional students can play a significant role in explaining differences in AET participation among countries.
- Adult popular education makes up a significant portion of the overall participation rate in Nordic countries, which in part explains why they show the highest rates among all the countries considered. This includes folk high schools and adult education

associations, which lie at the crossroads between civil society and the state. The alternative role that adult popular education plays in comparison to job-related learning appears to offset inequalities in participation for some groups, particularly older adults.

- It is difficult to assess changes in AET activity over time precisely, because consistent and reliable data for this purpose are rare. In any case, it is safe to say that there has been a general trend of increasing participation in AET over the last 25 years, and that this has been primarily driven by an increasing realization of the economic benefits of investing in people for productive reasons.
- Informal learning covers a broad range of activities that are difficult to capture, but carefully distinguishing among the informal learning activities collected by the ALL survey reveals that general non-specific learning experiences are nearly universal, while learning experiences involving the use of certain tools (i.e. literacy, numeracy, computers) in an interactive way, and engagement in a variety of specific contexts, are strongly related to one's prior level of formal education.

The main findings regarding patterns of who is and who is not participating in adult learning are as follows:

- In general, those who are women, older, come from poor socio-economic backgrounds, are less-educated, less-skilled, are in low-skill jobs or are unemployed, and/or are immigrants are the least likely to participate in AET. Membership of more than one group exacerbates observed inequalities.
- On the whole, gender differences are small for the countries considered, but this partly depends on level of formal education. Overall, in countries where women tend to have lower levels of formal education compared to men, women will be less likely to participate in adult learning. This is partly because formal education plays an important role in preparing adults for further learning. Furthermore, compared to men, employer support tends to be a less common source of financing for women.
- Patterns of inequality are very similar within countries, but the degree of inequality among countries differs substantially. This suggests that specific policy initiatives related to the distribution

of adult learning, as well as the socio-political and socio-cultural contexts more broadly, matter. Countries with policies targeted toward fair distribution of access to adult learning opportunities among various groups also tend to exhibit greater equality in chances to participate.

- Differences between younger and older adults are substantial in every country: Older people are much less likely to participate in AET. Among the most salient explanations for this observed pattern are the economic disincentives to pursue AET at an older age, a lower readiness to learn among those with limited work and life experiences, and the fact that the supply of learning opportunities may not meet the needs of older adults. On the other hand, older adults with varied cumulative experiences may possess a different set of cognitions, motivations and interests which are related to a higher readiness to pursue new learning experiences.
- Similarly, differences between the less-educated and higher-educated are also substantial in all cases: Lower-educated adults are much less likely to participate in AET. Some explanations for this observed pattern are a limited readiness to learn because education is seen as a way of preparing people for further learning, and the differing life situations of people with different educational backgrounds.
- The significance of education as a socio-economic marker helps to reveal that in many countries there is a strong connection between home background, educational attainment and further learning. This points to a cycle of intergenerational reproduction of inequalities that are strongly linked to lifelong learning processes. Those who have higher levels of formal education, and hence a greater likelihood of engaging in further learning, exhibit a tendency to pass this on to their children. In general, families with higher levels of education tend to play a strong role in helping their children secure resources for continued learning and development. However, countries that do display more success in equalizing the distribution of formal education across socio-economic divisions also seem to be more capable of breaking this cycle. This is because access to formal education, even among those whose parents may have

low levels of education, can compensate or reinforce the role of the family.

- Adults with observed lower levels of literacy skills are much less likely to participate in AET. Literacy, as measured in IALS, is defined in terms of a mode of adult behaviour, namely the extent to which an adult is able to use printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential. Possible explanations for this pattern are similar to those ascribed to educational differences, but literacy skills help to reveal a better understanding of differential access to employer-supported AET.

The main findings regarding some of the major motivating factors that can help explain better the observed inequalities in AET participation are as follows:

- Working life is a substantial mediator of observed inequalities in adult learning. First, employers play a central role in the education and training market. Second, the nature of the workplace and the demands it makes on the use of knowledge and skills greatly influence adults' readiness to actively engage in AET.
- Adults who work in larger firms are more likely to participate in AET. Possible reasons for this may be that large firms have greater opportunities to benefit from AET, lower unit costs of training, greater access to credit and information, and increased flexibility in work organization. Moreover, firms that compete globally and experience technological change, including changes in work practices, report the highest training activity. High-performing firms invest in AET to remain competitive and successful.
- Demands placed by the nature of the job are a driving factor explaining participation. Adults who work in jobs that require higher levels of cognitive skills to handle tasks, such as reading and the use of computers, are the most likely to participate in AET. Further, these types of jobs also provide more opportunity for informal learning.
- Employers support a large portion of AET. The support tends to be directed to younger and mid-career-aged adults who are

highly-educated and skilled. This reflects the overall pattern of inequality regarding who participates.

- Individuals also support a large part of their AET. This is mostly for job-related reasons and in particular to enhance their employability and increase their career prospects.
- Government support is the least common source of financing, and overall it does not tend to reach vulnerable groups such as adults who are women, older, less-educated, less-skilled, and/or are in low-skill occupations. Few countries have effective structures in place to support the hard-to-reach.
- The demands of daily life are also an important factor associated with participation. In general, adults who often read a wide variety of materials, often use computers and the Internet for multiple purposes and engage in the activities of a wide variety of community groups are the most likely to participate in AET.
- A structural analysis of the distribution across different segments of the population reveals that the greatest barrier to participation in AET for a large segment of the population is a perception that further learning is of little or no practical use.
- Even among adults who would like to participate in AET, many do not because they face a number of different barriers: situational, institutional and dispositional.

Some implications

Basis for public intervention in the planning of AET provision

Public intervention in the planning of AET provision and government support for adult learners relates more generally to two major aims of educational policy, although these are subject to intense debate.

First, interventions can be justified on the grounds of alleviating inequalities of opportunity as well as social and economic conditions among groups in society. This is subject to the debate of how best to distribute learning opportunities, and hence their associated outcomes according to societies' concern for human welfare and goals, such as the attainment of equity and social cohesion.

Second, interventions can be justified on the grounds of making the most efficient and effective use of available resources. This is subject to the debate on how best to reach an optimal amount of investment in learning, and hence an appropriate balance of costs and benefits. The latter aim of educational policy is primarily related to the concern for economic conditions, while the former arises from the wider concern for human and social conditions. The two aims, however, are strongly related. For example, it was suggested above that the problem of under-investment and hence market failure is likely to be most prevalent among those who have least access to AET opportunities.

Governments face major challenges in extending lifelong learning to the least qualified. With knowledge, skills and, more broadly, competencies becoming increasingly important in firms' recruitment and screening practices, less-skilled adults, young as well as old, are at risk of being routinely excluded from the labour market. Disadvantaged groups tend not to participate in AET, which could otherwise improve their life situation. They also often find themselves in contexts (at or outside work) that do not stimulate a readiness to engage in learning.

What are the approaches to financing AET?

While a first best approach to addressing market failures and observed inequalities would be structural reforms such as, for example, redefining public-private sector boundaries in the AET sector, there are many reasons why this is not possible or advisable (OECD, 2003*b*). First, many of the failures are due to natural imperfections that are difficult to overcome and no viable strategies have yet been devised. Second, some imperfections do not relate solely to training outcomes, and thus reforms should not be undertaken without careful consideration of the relevant trade-offs. This means that a carefully co-ordinated approach across policy sectors, both private and public, is necessary. Accordingly, the OECD (2003*b*) suggests that a second-best approach is to increase incentives to invest in AET through tax and institutional arrangements that favour cost sharing among individuals, firms and governments – known as co-financing schemes. These are schemes that channel resources from at least two parties among employers,

employees and governments. They can be designed so as to increase incentives to invest in human capital for employers, for individuals, or for both. These can include, among others: tax arrangements; grant schemes; pay-back clauses; apprenticeships; working-time and training-time accounts; loan schemes; tax incentives for individuals; subsidies to individuals; individual learning accounts; training leave; and leave for part-time study (see OECD, 2001; 2003*b*; 2003*c* for details on different national models of public and private financing of adult education).

Beyond promoting well-designed co-financing arrangements, the OECD (2005) highlights several other conditions that are crucial to facilitating the participation of less-skilled adults, in which governments can play a useful role. These include: creating the structural preconditions necessary for raising the benefits of adult learning; improving delivery and quality control; and ensuring policy co-ordination and coherence. A contentious conclusion of the OECD report (2005), however, is that due to the non-conclusive evidence on the overall impact of market failures, adult learning policy ought to focus primarily on schemes that minimize public financing and have potentially large pay-offs. The OECD recommendation is written as follows:

> "Regulatory and institutional arrangements that are conducive to enhancing investments by firms and individuals, while limiting public financing, are key within this type of strategy" (OECD, 2005: 11).

By contrast, interpretation of the findings presented in this booklet suggests that there is a strong role for the public sector, that is if the objective of lifelong learning for all is to be taken seriously and the evidence on market failures, although imperfect, is to be acknowledged. In general, there appears to be a lack of willingness in policy circles to directly address the implications of 'the long arm of the job' and the increasing impact of employer-sponsored AET on the distribution of learning opportunities. A common position is that it is not feasible to expect the public purse to cover the new demands and that the private sector, as well as individuals, must somehow contribute toward the total learning effort. It has been shown in this booklet that the extent and role of employer support, and who

obtains it, clearly indicates that the OECD recommendation quoted above will not be sufficient to reduce inequalities in the distribution of learning. Additionally, the results indicate that a polarization of the demands made on literacy skills at work also results in a polarization in the distribution of learning opportunities.

Interplay between the private and public sectors needed to plan for AET provision

Overall, the message emerging from the information base regarding adult learning is that a fruitful strategy for lifelong learning for all is as much an issue of labour market policy as it is of educational policy. Thus, strong interplay between the public and private sectors is necessary. The evolving nature of employment is changing the long-established division of roles between the public and private sectors. Another distinction that has dissolved is the one between taking AET for job- and non-job-related reasons – each contributes to the other. Further, findings on the perceived usefulness of participation indicate a blurring of the boundaries between company- or industry-specific training and general education.

One factor that complicates matters further is that employers, particularly in North America, seldom contribute to the general education of those with limited literacy skills as defined in the IALS study. This leaves the public sector with the task of providing an adequate foundation for learning to a large segment of adult populations who, according to the IALS study, have inadequate literacy skills.

Funding regime and responding to demands

The data on government support and participation reveal that public funding can have a substantial impact on the participation of those least likely to enrol in AET opportunities. At the same time, there is evidence to suggest that unless there is earmarked funding for target groups, even AET initiatives and programmes with pronounced ambitions to reach the disadvantaged actually provide a service that corresponds better to the demands of the advantaged. This is a result of existing funding regimes not compensating for the increased costs involved in recruiting the disadvantaged. At a time when government policies seek to increase efficiency

through the adoption of a more market-oriented approach and outcomes-based funding, there is a growing likelihood that AET initiatives/programmes will target those easiest to recruit and most likely to succeed.

From this perspective, the comparatively successful recruitment of the less well-educated in the Nordic countries is a result not of public funding as such, but of the availability of targeted funding for recruiting disadvantaged groups. Nordic AET-related policies over the last 25 years show that general policies have limited effects on the recruitment of disadvantaged groups, because it is the advantaged groups who end up consuming more than their fair share of the resources. Instead, it has been earmarked funding for targeted strategies, like outreach and special study aid, which have been the most successful. These measures are based on the assumption that certain groups must use a certain proportion of the funds made available. The most significant challenge is to stimulate the demands among those groups for which the measure is taken.

Separately, looking at the provision of AET, several reviews of national education policy have sent a strong message about the present and future importance of the role played by the voluntary sector in delivering AET (OECD, 1990; 1995), although it requires state support. The reviews found that this sector is more flexible and adapts to new demands faster than the formal system. Moreover, it seems to reach adults who otherwise would not enrol in AET. This form of AET could be of potential importance, not only for civil society but also for the economy. However, the integration of the voluntary sector into a comprehensive AET policy can be successful only if direct state intervention is avoided. As long as the goals for which state funding is received are fulfilled, the sector must be left to fend for itself. This 'hands-off' requirement might however be perceived as a threat by the state bureaucracy, which seems to deter funding and acts as a barrier.

The need for integration of policies across policy sectors

Finally, there is a need for policy-makers to adopt a more holistic view of social functioning that allows for the formulation of more well-integrated policies across education and other policy domains. For example, even though research suggests that there

are a number of possible channels that link education and health outcomes, and that there is evidence of sizeable differences in health and access to health-related resources for those with different levels of education, there is little co-ordination of efforts between education and health policies. In general, it would seem important for government spending departments to understand better the potential savings resulting from policy interventions that are related to investments in learning.

Issues for further research

Improving the information base

It is important to improve the information base regarding adult learning. In particular, the myriad of ways of organizing the total learning effort, including formal education and AET systems, should be linked to learning outcomes, including competencies and living conditions, and in turn this needs to be linked to policy choices. The overarching research question is: "How do different learning contexts affect different learning outcomes?"

Other questions include: "Which mechanisms are more relevant for early development compared to the possible impact of later interventions?" "Is later intervention merely compensatory, with little chance of making a difference? Or could there be a possibility for good timing later on?" Research results suggest that there is an imperfect correlation between education and directly assessed skills such as the literacy and numeracy skills assessed in IALS (OECD and HRDC, 1997; OECD and Statistics Canada, 2000, 2005), which indicates a gap between the competencies acquired from formal schooling and the actual competencies embodied in individuals. For this reason, further research is needed to understand the nature and extent of the substitutes and complements to more traditional schooling contexts. To study these questions properly, a longitudinal data set, which is derived from a survey that collects observations from the same persons at multiple points in time, is ideally needed, and in particular a comparative information base that provides measures for all three lifewide learning dimensions over time (Tuijnman, 1989). *Figure 3.1* illustrates how such a research design could look. This design would have the potential to assess the

cumulative and interactive effects of learning in multiple contexts over the lifespan, as well as the effects of timing and persistence of learning interventions. *Figure 3.2* links multiple learning contexts to the possible benefits of learning.

Comparative data is preferred for various reasons: First, this is because assessing cross-country differences in the many ways in which learning systems are organized, and relating these to learning outcomes, enables policy-makers to assess the comparative strengths and weaknesses in their country's past, current and prospective efforts. Second, because cross-country variation in policies and institutional settings is greater than intra-country variation, a comparative information base can in principle provide more policy-relevant data and analysis than a compilation of national assessments that are not comparable.

In order to understand better the impact of policy settings and choices from an international comparative perspective, it is also essential to collect comparative data on system-level features, including those that are relevant to education, labour market and welfare policies. This would require the development of standards for defining and categorizing characteristics of different systems in a comparable manner. Finally, there also needs to be better links between surveys that are relevant to the different policy sectors. For example, a common module of adult learning could be implemented in labour market, skills, social capital, and many other types of surveys.

Figure 3.1 Lifelong learning contexts

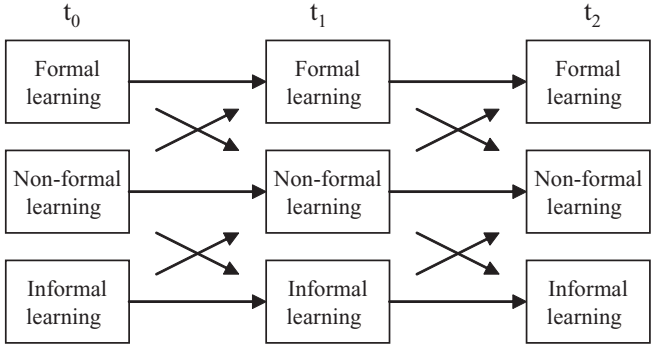
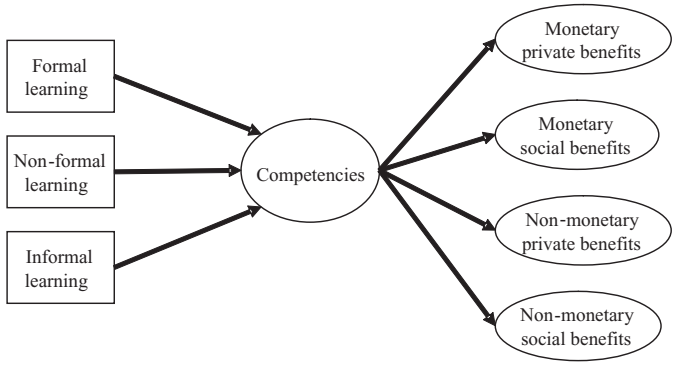


Figure 3.2 Benefits of learning



Better understanding the relationship between formal education structures and adult learning

In connection with the comparative system-level data, research is needed to understand the relationship between institutional features of formal education systems, such as the degree of stratification and vocational specificity of pathways, and the extent and distribution of AET among different countries. For example, countries with education systems that feature very limited permeability between different tracks and continue to maintain dead-end tracks, especially at lower levels of the system, are likely to have lower participation rates in AET. It was also suggested that the degree to which higher education systems are open to 'non-traditional' students can play a significant role in explaining differences in AET participation among countries.

Better understanding the relationship between occupational and industrial structures and adult learning

Similarly, research is needed to understand better the relationship between occupational and production structures and the distribution of AET in different countries. This is because the way the labour market is structured and, more generally, the structure of occupations and production in a particular country are likely

to bear a strong influence on the distribution of job-related adult learning. For example, flat work structures with less hierarchy in the workplace have been linked to the high-skill knowledge economy sector and a more equitable distribution of competencies.

Better understanding market failures and their implications for inequality

Finally, more research is needed to understand better the nature of market failures related to learning. Market imperfections that may relate to learning outcomes are likely to have complex implications that spill over into other policy sectors, and thus reforms should not be undertaken without careful consideration of the relevant trade-offs. More specific information is necessary to devise viable strategies to overcome market failures and hence optimize the allocation and distribution of resources invested in the total learning effort.

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