



INSTITUTE for STATISTICS

## International Literacy Statistics: A Review of Concepts, Methodology and Current Data



UNESCO



# **INTERNATIONAL LITERACY STATISTICS: A REVIEW OF CONCEPTS, METHODOLOGY AND CURRENT DATA**

---

**UNESCO Institute for Statistics  
Montreal, 2008**

## **UNESCO**

The constitution of the United Nations Educational, Scientific and Cultural Organization (UNESCO) was adopted by 20 countries at the London Conference in November 1945 and entered into effect on 4 November 1946. The Organization currently has 193 Member States and six Associate Members.

The main objective of UNESCO is to contribute to peace and security in the world by promoting collaboration among nations through education, science, culture and communication in order to foster universal respect for justice, the rule of law, and the human rights and fundamental freedoms that are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations.

To fulfil its mandate, UNESCO performs five principal functions: 1) prospective studies on education, science, culture and communication for tomorrow's world; 2) the advancement, transfer and sharing of knowledge through research, training and teaching activities; 3) standard-setting actions for the preparation and adoption of internal instruments and statutory recommendations; 4) expertise through technical co-operation to Member States for their development policies and projects; and 5) the exchange of specialized information.

UNESCO is headquartered in Paris, France.

## **UNESCO Institute for Statistics**

The UNESCO Institute for Statistics (UIS) is the statistical office of UNESCO and is the UN depository for global statistics in the fields of education, science and technology, culture and communication.

The UIS was established in 1999. It was created to improve UNESCO's statistical programme and to develop and deliver the timely, accurate and policy-relevant statistics needed in today's increasingly complex and rapidly changing social, political and economic environments.

The UIS is based in Montreal, Canada.

Published in 2008 by:

UNESCO Institute for Statistics  
P.O. Box 6128, Succursale Centre-Ville  
Montreal, Quebec H3C 3J7  
Canada

Tel: (1 514) 343-6880  
Fax: (1 514) 343-5740  
Email: [publications@uis.unesco.org](mailto:publications@uis.unesco.org)  
<http://www.uis.unesco.org>

ISBN 978-92-9189-060-6  
Ref: UIS/TD/08-02

©UNESCO-UIS 2008

Cover design: JCNicholls Design  
Photo credits: ©Eric Miller/World Bank, Curt Carnemark/World Bank,  
Ami Vitale/World Bank, Linda Shen/UNESCO  
Printed by: ICAO, Montreal

## **Acknowledgements**

This report was written by Dr Roy Carr-Hill (University of York, United Kingdom), under the overall guidance of José Pessoa of the UNESCO Institute for Statistics (UIS). Special thanks go to individuals at the UIS who provided comments on the report, including Hendrik van der Pol, Saïd Belkachla, Simon Ellis, Olivier Labé, Weixin Lu, Albert Motivans and Brenda Tay-Lam.

The report was edited by Katja Frostell and José Pessoa.

# Table of contents

	Page
<b>List of acronyms</b>	<b>viii</b>
<b>Chapter 1</b>	<b>9</b>
1.1 Introduction	9
1.2 Understandings of literacy	10
1.2.1 Historical development	10
1.2.2 Understanding of literacy in international and academic discourse	11
1.3 Links between literacy, human development and welfare	11
1.4 Uses of literacy statistics in international indexes	13
1.5 International advocacy	14
1.5.1 United Nations Literacy Decade (UNLD)	14
1.5.2 Literacy Initiative for Empowerment (LIFE)	14
1.5.3 Reduced investment and the impact of Jomtien and Dakar	15
<b>Chapter 2: Measuring literacy</b>	<b>16</b>
2.1 A brief history of literacy statistics at UNESCO	16
2.2 Current concerns over definitions and measurement of literacy	18
2.2.1 Developments in measuring literacy	18
2.2.2 Given its limitations, why do we still use the census data definition?	18
2.2.3 Improvements in UIS use of dichotomous statistics	19
2.3 Reliability of measurement in UIS regular literacy statistics	19
2.3.1 Possible sources for literacy data	19
2.3.2 Reliability of population denominator data and other biases	21
2.3.3 Other problems of bias and reliability	23
2.3.4 International and over-time comparability of literacy data	23
2.4 Literacy Assessment and Monitoring Programme (LAMP)	24
2.4.1 The development of functional literacy	24
2.4.2 Literacy assessments: International and national examples	26
2.4.3 LAMP assessment	31
<b>Chapter 3: Global trends</b>	<b>33</b>
3.1 Approach	33
3.2 Trends in literacy for all adults aged 15 years and older	34
3.2.1 Overall trends in adult literacy	34
3.2.2 Literacy trends for men and women	34
3.3 Literacy trends for youth aged 15 to 24 years	35
3.3.1 Overall trends in youth literacy	35
3.3.2 Literacy trends for young men and women	36
3.4 Literacy trends for persons aged 25 years and older	37
3.4.1 Overall trends in older adult literacy	37
3.4.2 Literacy trends for older men and women	37
3.5 Discussion: Overall trends, comparing age groups and gender	38

<b>Chapter 4: Projections .....</b>	<b>39</b>
4.1 Projections .....	39
4.2 Previous methodologies.....	39
4.3 Current UIS projection methodology .....	40
4.3.1 Population projection.....	40
4.3.2 Projecting literacy .....	41
4.3.3 The new Global Age-Specific Literacy Projections (GALP) model.....	42
4.4 Commentary and critique .....	46
<b>Chapter 5: Conclusions .....</b>	<b>48</b>
5.1 Measurement methodologies.....	48
5.2 Patterns of literacy rates and of illiteracy .....	48
5.3 Remaining and new problems.....	49
5.4 Projections .....	50
5.5 Measurement policy and political imperatives.....	50
<b>References .....</b>	<b>51</b>
<b>Appendix I: Statistical tables.....</b>	<b>56</b>
<b>Appendix II: List of regions .....</b>	<b>80</b>

#### List of tables

Table 4.1	Projected number of total illiterates by region and age group, for the years 2005, 2010 and 2015 .....	43
Table 4.2	Projected number of male illiterates by region and age group, for the years 2005, 2010 and 2015 .....	44
Table 4.2	Projected number of female illiterates by region and age group, for the years 2005, 2010 and 2015 .....	45
Table 4.4a	Correlation between the change and percentage change in the total literacy rate and the World Development Indicators (WDI) .....	47
Table 4.4b	Regression of percentage change in the total literacy rate with percentage change in telephones and population growth rate.....	47
Table I.1	Adult (15 years and older) literacy rate and number of illiterates by sex and region, 1990 .....	56
Table I.2	Adult (15 years and older) literacy rate and number of illiterates by sex and region, 2000 .....	58
Table I.3	Change in adult (15 years and older) literacy rate by sex and region, 1990-2000.....	60
Table I.4	Change in adult (15 years and older) number of illiterates by sex and region, 1990-2000.....	62
Table I.5	Youth (15-24 years of age) literacy rate and number of illiterates by sex and region, 1990.....	64
Table I.6	Youth (15-24 years of age) literacy rate and number of illiterates by sex and region, 2000.....	66
Table I.7	Change in youth (15-24 years of age) literacy rate by sex and region, 1990-2000.....	68

Table I.8	Change in youth (15-24 years of age) number of illiterates by sex and region, 1990-2000.....	70
Table I.9	Mature adult (25 years and older) literacy rate and number of illiterates by sex and region, 1990.....	72
Table I.10	Mature adult (25 years and older) literacy rate and number of illiterates by sex and region, 2000.....	74
Table I.11	Mature adult (25 years and older) literacy rate by sex and region, 1990-2000.....	76
Table I.12	Change in mature adult (25 years and older) number of illiterates rate by sex and region, 1990-2000 .....	78

## List of acronyms

ALLS	Adult Literacy and Life Skills Survey
EDI	EFA Development Index
EFA	Education for All
ETS	Educational Testing Service
EWLP	Experimental World Literacy Programme
GMR	EFA <i>Global Monitoring Report</i>
HDI	Human Development Index
IAEP	International Assessment of Educational Progress
IALS	International Adult Literacy Survey
ICT	Information and communication technology
IEA	International Association for the Evaluation of Educational Achievement
ISCED	International Standard Classification of Education
ISES	International Standardization of Educational Statistics
LAMP	Literacy Assessment and Monitoring Programme
LIFE	Literacy Initiative for Empowerment
MDGs	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MOU	Memorandum of Understanding
NGOs	Non-governmental organizations
NFE	Non-formal education
NLS	New Literacy Studies
NPR	National planning report
NPL	National programme leader
NTL	National Team Leader
OECD	Organisation for Economic Co-operation and Development
PIAAC	Programme for International Assessment of Adult Competencies
PQLI	Physical Quality of Life Index
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PPP	Purchasing Power Parity
TIMSS	Third International Mathematics and Science Study
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNLD	United Nations Literacy Decade
UNPD	United Nations Population Division
UNSD	United Nations Statistical Division



# Chapter 1

## 1.1 Introduction

Literacy is very important – many would say a human right. A good quality basic education equips pupils with literacy skills for life and further learning; literate parents are more likely to keep their children healthy and send their children to school; literate people are better able to access other education and employment opportunities; and, collectively, literate societies are better geared to meet development challenges. Indeed, the emergence of knowledge societies makes literacy even more critical than in the past. Achieving widespread literacy can only happen in the context of building literate societies that encourage individuals to acquire and use their literacy skills.

Yet, literacy is one of the most neglected Education for All (EFA) goals, both in policy and political terms. Although precise figures are open to debate (itself an indication of neglect), the conventional (usually census-based) literacy data show that the global literacy rate increased from 56% in 1950 to 70% in 1980, 75% in 1990 and 82% in 2000-2004. Worldwide, the adult literacy rate increased at a faster pace in the 1970s than in subsequent decades. Literacy rates increased by more than 10% between 1990 and 2000 in the regions of sub-Saharan Africa, South and West Asia, and the Arab States. Despite these substantial increases and because populations have grown rapidly, the overall numbers and distributions of illiterates have hardly changed. Most of the approximately 774 million adults unable to read and write – about one-fifth of the world's population – are concentrated in South and West Asia, sub-Saharan Africa, and East Asia and the Pacific. Moreover, there remain significant disparities between – and within – rural and urban areas. Pastoralist and nomadic populations, which number in the tens of millions across the African dry lands, the Middle East and parts of Asia, have much lower literacy levels than other rural populations. In addition, indigenous groups, linguistic minorities, migrants and people with disabilities are among populations with lower literacy rates, reflecting exclusion of these groups from mainstream society and reduced access to formal education and literacy programmes.

This is an appalling loss of human potential and economic capacity. Prospects for meeting the literacy goal hinge largely on progress in the 12 countries where 75% of the population without these skills live. Illiteracy tends to prevail in low-income countries where severe poverty is widespread. The links between poverty and illiteracy can also be studied at the household level, where evidence from 30 developing countries indicates that literacy levels correlate strongly with wealth. At the same time, additional key socio-demographic variables – namely, age, gender, urban/rural residence and schooling – were also found to be highly predictive, making it important to have high-quality literacy statistics available to address the specific impact of literacy on poverty.

In countries where the basic adult literacy rates have traditionally been seen as high, it has been realised that a broader range of literacy skills is increasingly required to participate in the modern economy. Concern about the quality of the statistics on literacy has, therefore, gained momentum. Alternative measures incorporate direct assessments that test literacy skills on various scales. Unfortunately, such data are available for only a few countries.

The purpose of this report is to provide an overview of progress, both substantively and in terms of measurement, since the last literacy report, entitled *No. 35 Compendium of Statistics on Illiteracy* (UNESCO, 1995 edition). The remainder of this introduction sets the background in terms of the movement from illiteracy to literacy to literacies, the presumed link between literacy, human development and welfare, the use of literacy statistics in indexes, and the level of international advocacy. Chapter 2 describes the methodological problems of measuring and estimating literacy, both through literacy statistics collected by UNESCO and the UNESCO Institute for Statistics (UIS), as well as the Literacy Assessment and Monitoring Programme (LAMP). Chapter 3 examines trends in global and regional literacy over the last 20 years, and Chapter 4 presents the progress towards EFA by providing an analysis of forecasted literacy trends up to 2015.

## 1.2 Understanding literacy

### 1.2.1 Historical development

For most of its history, the word 'literate' in English, meant to be "familiar with literature" or, more generally, "well educated, learned". Only since the late 19<sup>th</sup> century has it also come to refer to the abilities to read and write text while maintaining its broader meaning of being 'knowledgeable or educated in a particular field or fields'. Thus, the original meaning of the English word 'literacy' is likely to be different from equivalents in other languages. For example, in French, *alphabétisme* and *analphabétisme* are the terms generally used to designate 'literacy' and 'illiteracy', while *alphabétisation* refers to 'literacy learning' and is used in France to denote the process of literacy acquisition.

Until the early 1980s, the term *analphabétisme* (illiteracy) and *alphabétisation* (literacy learning) were used to refer to what was perceived to be a literacy problem of immigrants. The issue was, in reality, one of poor reading and writing skills in French as a second language (which concerned second-generation immigrants and, to a lesser extent, immigrants as well as French nationals with a regional language, such as Basques, Catalans and Bretons). The recognition of this led to the introduction of the term *illettrisme*, referring to those who had been through part or all of the French primary school system without gaining adequate skills.

Finally, in August 2005, France adopted the term *littérisme*, meant to be the opposite of *illettrisme*, as referring to "the ability to read and understand a simple text, and to use and transmit written information of everyday life". *Littérisme* is, thus, a close equivalent to the English concept, which encompasses numeracy (Fernandez, 2005; Limage, 1986, 2005; *Ministère de la culture et de la communication*, 2005; OCED/HRDC/Statistics Canada, 1997).<sup>1</sup>

---

<sup>1</sup> The latest revision of the francophone concept of literacy has emerged (originally in Quebec) through the terms *littératie* and, less commonly, *littératies*. While the former derives from anglophone understandings of literacy championed by the Organisation for Economic Co-operation and Development (OECD) (referring to competencies deemed important for 'information societies'), the latter is akin to the anglophone concept of multi-literacies advanced by the New Literacy Studies movement.

### **1.2.2 Understanding literacy in international and academic discourse**

Although it was realised that this was an enormous challenge, in the early days of UNESCO, during the 1950s to 1960s the focus was on the eradication of illiteracy (UNESCO, 1953; UNESCO, 1957), seen as a problem of providing sufficient opportunities for illiterates to learn how to read and write. Illiterates were seen as victims so that their illiteracy was an effect rather than a cause of their marginal condition. Indeed, the launch of the Experimental World Literacy Programme in 1967 was seen as testing the most appropriate approaches and methods for designing and implementing programmes to eradicate illiteracy (UNESCO, 1975).

However, there was a growing awareness that illiteracy and literacy were much more closely entwined with other developmental issues. On the one hand, there were those like Paulo Freire (1970) who saw the development of literacy as closely linked with social revolution in North Eastern Brazil; on the other hand, there was an increasing attention to functional literacy for employment in the formal economy so that it was seen as vocational training. The UNESCO highlight was the Experimental World Literacy Programme.

During the 1970s and 1980s, there was a disinvestment by international aid programmes in adult literacy programmes, which were seen as being complicated to design and implement. The majority of the programmes that remained were relatively small-scale, carried out by non-governmental organizations (NGOs). With rare exceptions, this is still the case.

The argument is that literacy only has meaning within its particular context of social practice and does not transfer easily across contexts. There are different literacy practices in different domains of social life, such as education, religion, workplaces, public services, families and community activities. They change over time, and these different literacies are supported and shaped by different institutions and social relationships. The argument that any research that purports to increase our understanding of literacy in society must take account of these meanings, values and uses is well taken – and, indeed, they are the source of the ideas which statisticians use to interpret their findings.

### **1.3 Links between literacy, human development and welfare**

In addition to seeing literacy as a basic human right, there are assumed to be a set of benefits that are derived from literacy. Indeed, it is widely reckoned that in modern societies "literacy skills are fundamental to informed decision-making, personal empowerment, active and passive participation in local and global social community" (Stromquist, 2005, p. 12). It is, however, difficult to provide a systematic evidence-based account of the benefits of literacy because of the neglect of literacy itself (and, therefore, a relatively small number of studies on literacy), the variable definitions and measurement of literacy in programmes and in research studies, and the difficulty of separating the effects of literacy programmes from schooling. The tendency is "to conflate schooling, education, literacy and knowledge" (Robinson-Pant, 2005).

Moreover, it is well understood that the benefits of literacy ensue only when broader rights and development frameworks are in place and operating effectively. Individual benefits accrue only when written material is available to the newly literate person; and overall, economic benefits only when there is sound macroeconomic management, investment in infrastructure and other appropriate policy measures. There has been some debate about the negative effects of literacy, such as the loss of one's own oral language and indoctrination to participate uncritically in a political system. The issue is how literacy is acquired; the benefits depend on the *channels* of its acquisition.

Nevertheless, there are scattered studies which have provided at least some evidence in respect of each of the following:

- *Human benefits including self-esteem and empowerment:* Improved self-esteem has been reported in studies of literacy programmes in both Africa and Latin America (e.g. Abadzi, 2003b). Literacy programmes can contribute to broader socio-economic processes of empowerment, provided they take place in a supportive environment (Burchfield et al. 2002b).
- *Political benefits including political participation, expansion of democracy, ethnic equality and amelioration of post-conflict situations:* Participation in adult literacy programmes is correlated with increased participation in trade unions, community action and national political life, especially when empowerment is at the core of programme design (e.g. Carron et al., 1989). The precise nature of the relationship between education and democracy remains unclear and difficult to measure accurately (Hannum and Buchmann, 2003). There appears to be no research into the impact on ethnic equality or on post-conflict situations of either literacy or participation in adult literacy programmes.
- *Cultural benefits including cultural change and preservation of cultural diversity:* Many programmes also aim to promote values such as equity, inclusion, respect for cultural diversity, peace and active democracy, although with limited success (Carr-Hill, 2001). Adult literacy programmes can help preserve cultural diversity. In particular, literacy programmes that make use of minority languages have the potential to improve people's ability to participate in their own culture. This has been observed in programmes where outcomes included the writing down of folk tales.
- *Social benefits including health, reproductive behaviour, education and gender equality:* Bolivian women who attended literacy and basic education programmes displayed gains in health-related knowledge and behaviour, relative to those who had not. The former group was more likely, for instance, to seek medical help for themselves and sick children, adopt preventive health measures such as immunization, and know more about family planning methods (Burchfield et al., 2002b). The negative correlation between education (in particular that of females) and fertility is well established. Little research into the impact of adult literacy programmes on fertility has been done. Parents who themselves are educated, whether through schooling or adult programmes, are more likely to send their children to school and more able to help the children in the course of their schooling. The literacy classes provided women with a social space away from home (Patel in UNESCO, 2003c, p. 142).

- *Economic benefits including economic growth and returns to investment:* Naudé (2004), using panel data for 1970 to 1990 for 44 African countries, found that literacy was among the variables with a positive effect on GDP per capita growth. When comparing the countries that participated in the International Adult Literacy Survey (IALS), greater disparities in literacy rates between the richest and the poorest deciles were associated with higher degrees of income inequality (OECD, 1999). Indeed, it has been suggested that the level of cognitive achievement of literacy programme trainees is the equivalent of that resulting from four years of schooling (Oxenham, 2003). The sparse evidence that exists indicates, therefore, that the returns to investment in adult literacy programmes are generally comparable to, and compare favourably with, those from investments in primary education.

#### **1.4 Uses of literacy statistics in international indexes**

The national literacy rate, along with other measures of development such as income per capita, acquired 'official' status as an international development indicator in 1971, when a rate of 20% or less was adopted by the United Nations General Assembly as one of the criteria for classifying a country as 'least developed'.

The literacy rate was included in the Physical Quality of Life Index (PQLI) in the 1970s and then in the Human Development Index (HDI) in the 1990s. The PQLI is a single number derived from basic literacy rate, infant mortality, and life expectancy at age one, all equally weighted on a 0 to 100 scale. The HDI includes longevity as measured by life expectancy at birth, knowledge as measured by a weighted average of adult literacy (two-thirds) and mean years of schooling (one-third), and standard of living as measured by real per capita income adjusted for both the differing purchasing power parity (PPP) of each country's currency to reflect cost of living and the assumption of rapidly diminishing marginal utility of income above average world income levels.

There is no specific literacy goal or target in the Millennium Development Goals, although Goal 2 (Universal Primary Education by 2015) is of course closely associated, and one of the indicators (2.3) is the rate of youth literacy by sex.

The Dakar EFA target for improving literacy (Goal 4) is: "...achieving a 50% improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults..."

As several authors have pointed out, this is the wrong way round as it is strictly impossible for a country with 67% literacy or more to improve by 50%. The previous formulation in the Jomtien Framework of Action (paragraph 8) was "reduction of adult illiteracy rate to one-half of its 1990 level by the year 2000, with sufficient emphasis on female literacy". For this reason, the 2006 *EFA Global Monitoring Report (GMR)* returns to the original measurement definition of the goal to reduce adult illiteracy (UNESCO, 2005, p. 66).

The EFA Education Development Index (EDI) value for a particular country is the arithmetic mean of the observed values for proxies for four of the six components making up the goals of Education for All. One of these is the adult literacy rate.<sup>2</sup>

## **1.5 International advocacy**

### **1.5.1 United Nations Literacy Decade (UNLD)**

UNESCO is the lead agency and international coordinator of the United Nations Literacy Decade 2003-2012 (UNLD) which states that "literacy for all is at the heart of basic education for all... [and] creating literate environments and societies is essential for achieving the goals of eradicating poverty, reducing child mortality, curbing population growth, achieving gender equality and ensuring sustainable development, peace and democracy". But if current trends continue and if major changes in the school system are not introduced, 'Literacy as Freedom' will continue to be an unreachable dream for millions of people. For this reason, the Decade will focus on the needs of adults with the goal that people everywhere should be able to use literacy to communicate within their own community, in the wider society and beyond.

Countries have been asked to commit to literacy at the highest political levels and assign more resources to youth and adult literacy programmes. Whilst financial resources are not necessarily the only avenue (for example, there are many community-led programmes), it is indicative of the lack of attention, according to the 2006 GMR, that literacy typically receives only 1% of the national education budget.

### **1.5.2 Literacy Initiative for Empowerment (LIFE)**

UNESCO's Literacy Initiative for Empowerment (LIFE), launched in October 2005, is a global framework for the implementation of the UNLD in order to meet the EFA goals, with particular focus on adult literacy and out-of-school children. It was created when it became apparent that existing literacy efforts would not be sufficient to achieve 50% improvement in levels of adult literacy by 2015.

LIFE targets the 35 countries that have a literacy rate of less than 50% or a population of more than 10 million people who cannot read nor write. 85% of the world's non-literate population resides in these countries, and two-thirds are women and girls.

---

<sup>2</sup> The other components are: universal primary education, the quality of education and the gender-specific EFA index.

### 1.5.3 Reduced investment and the impact of Jomtien and Dakar

National governments in developing countries, with few exceptions, have tended to direct their limited resources towards formal schooling for children rather than programmes for adults, which were left to the NGOs to provide usually on a small scale. Moreover, prior to 1990, "most agencies [gave] fairly minimal support to basic education" (Bennell and Furlong, 1998). Despite large increases during the 1990s<sup>3</sup>, these still fall short of amounts of about US\$3 billion a year reported in the first GMR based on three studies of the resources required to achieve EFA by 2015; and, once again, adult literacy remained at the back of the queue for resources.

Long viewed as a problem only for developing countries, during the 1990s developed countries also became concerned about levels of literacy and other skill sets deemed as necessary to retain competitiveness in a globalised economy. This can be seen in the continued use of literacy and skills assessments on both the national level (e.g. France) and international level (e.g. Adult Literacy and Life Skills Survey (ALLS) and the OECD Programme for International Assessment of Adult Competencies (PIACC)).

---

<sup>3</sup> Bilateral aid commitments increased to about \$400 million in 1995 but dropped back to under \$300 million in 1998. Among the multilaterals, commitments increased from \$500 million to a peak of nearly \$2,000 million in 1994, and between \$1,200 million and \$1,900 million in succeeding years.



## Chapter 2: Measuring literacy

### 2.1 A brief history of literacy statistics at UNESCO

The worldwide incidence of illiteracy prompted Julian Huxley, Executive Secretary of UNESCO's Preparatory Commission and UNESCO's first Director-General, to say:

“Where half the people of the world are denied the elementary freedom which consists in the ability to read and write, there lacks something of the basic unity and basic justice which the United Nations are pledged together to further.” (Smyth, 2005, p. 5)

This statement reflects the reality of the challenge facing the international community in the late 1940s. UNESCO's first publication concerning literacy statistics was *Progress of Literacy in Various Countries* (1953). Prepared with assistance from the United Nations Statistical Division (UNSD) in assembling available census data, it brought together data regarding literacy and illiteracy in 26 countries that had administered questions concerning literacy in their national population censuses going back to around 1900.

It also presented a critical analysis and commentary on the main issues involved in comparing data reported by the different countries, especially with respect to the types of questions concerning literacy used in the various censuses. However, it did not realise the difficulties of comparing over time because of changing tolerances.

The *Progress* monograph was followed up by *World Illiteracy at Mid-Century* (UNESCO, 1957). Taking illiteracy to mean "the inability to read and write in any language (a relatively minimum concept commonly adopted in national statistics mainly derived from population censuses)", the study acknowledged the limitations of its estimates and presented them as applicable within 'ranges'. Although rates have subsequently decreased, the global pattern of the incidence of illiteracy revealed by the study has not greatly changed in the ensuing half century.

According to Smyth (2005), this study drew two conclusions regarding educational policy at the international level. One was very general: "Although the phenomenon of illiteracy is on the decline throughout the world, it is still of such magnitude as to challenge the efforts of all who believe in the wide diffusion of the arts of written communication among people living in modern society". The other was more specific. Drawing on its analysis of the experience of selected countries, "where historical data on both [school] enrolment and literacy rates are available", and the study concluded that "the evidence clearly points to the supreme importance of extending universal primary education as the basic approach towards the elimination of illiteracy". This reflected the prioritisation in the 1950's that the UNESCO education programme gave to promoting free and compulsory education. However, this ignored the possibility that many countries would undertake national mass campaigns specifically focused on the promotion of literacy among adults.



The similarity among the majority of national censuses in their definitions of literacy/illiteracy probably facilitated agreement on the standard definitions that were included in the Recommendation concerning the International Standardization of Educational Statistics (ISES) adopted by UNESCO's General Conference in 1958:

- (a) A person is literate who can with understanding both read and write a short simple statement on his (her) everyday life. (b) A person is illiterate who cannot with understanding both read and write a short simple statement on his (her) everyday life.

Subsequently, these definitions were to serve as the basis of UNESCO's international literacy statistics.

The second phase in developing statistics involved building up the database as more census reports became available. During this period, the importance of what was then called 'cutting off illiteracy at its base' through the development of the formal education system was not denied, but it was progressively seen as a long-term solution.

The first attempt at international action over illiteracy was the joint UNESCO/UNDP Experimental World Literacy Programme in 1966. This was based on the concept of 'functional illiteracy', which was later defined as follows:

A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his (her) group and community and also for enabling him (her) to continue to use reading, writing and calculation for his (her) own and the community's development.[and vice versa]. (UNESCO, 1975)

Nevertheless, the inclusion of these definitions in the 1975 Recommendation was largely symbolic, for they were well in advance of actual practice in countries. At that time, neither the international adult education community nor the international community of specialists in testing and measurement, let alone national census administrations, had actually devised means for measuring functional literacy among adults on an internationally comparable basis.

The Statistics Division of UNESCO embarked on a comprehensive stock-taking of available census data relating to both literacy and educational attainment, based on the assumption that the acquisition of functional literacy normally required the completion of at least four years of schooling and that "most national censuses that collected information on literacy also collected information on levels of educational attainment" (UNESCO, 1957). The stock-taking led to the publication, *Statistics of Educational Attainment and Illiteracy 1945-1974* (UNESCO, 1977a), which brought together data from censuses and surveys carried out in 179 countries or territories since 1945. Codification of all the material was complicated because of the variety of classification protocols utilised by the various censuses, especially in respect to level of educational attainment and age group. Part of the interest in carrying out the exercise, although this was not stated explicitly at the time and only became evident afterwards, was to provide a basis for projecting future worldwide trends in illiteracy.

At the same time, literacy statistics do not easily fit into the remainder of UNESCO's production. In particular, it is important to note that, whilst the 1997 revision of the International Standard Classification of Education (ISCED) was designed to take account of the new types of learning opportunities and education/learning activities available in many countries for both children and adults (including programmes of continuing education, special needs education and training outside the formal education system's institutional framework which were not adequately covered in the previous version), the revised ISCED97 does not include either literacy or non-formal education (NFE).

## **2.2 Current concerns over definitions and measurement of literacy**

### **2.2.1 Developments in measuring literacy**

Since the 1980s, concerns about the quality of literacy statistics have gained momentum. Alternative measures incorporate direct assessments that test literacy skills on various scales. They conceive of literacy as a multidimensional phenomenon, rather than a dichotomous one, embracing several skill domains. Evidence from direct assessments of literacy show that conventional assessment methods usually overstate actual literacy levels: for example, the International Adult Literacy Survey (IALS), conducted in some 20 developed countries, found that significant proportions of the adult population, although formally literate when assessed on the dichotomous variable, had relatively weak literacy and numeracy skills.

Several developing countries are designing literacy surveys to provide more accurate knowledge about literacy, including Botswana, Brazil and China. To allow countries to make informed policy decisions, more – and more regular – direct assessments are needed, but they must be relatively simple, rapid and inexpensive to undertake. The methods being developed by the UIS are described in Chapter 3.

#### **2.2.2. Given its limitations, why do we still use the census data definition?**

Nevertheless, the regular UIS literacy statistics are still based on the dichotomous variables. There are at least three reasons for this:

- Pragmatically, only a few countries have actually carried out the required assessment surveys let alone have time series, whilst the dichotomous item is frequently included in censuses or large-scale surveys because it is inexpensive and easy to administer.
- A problem with the multidimensional methods is that the various dimensions and the relations between them are more likely to be understood in different ways over time and across cultures when compared to the simple dichotomous variable, “Can you read and write?”, which is more likely to be perceived and understood over time and across cultures in the same way.
- The dichotomous variable is frequently used as an explanatory variable, and changes in the literacy level measured that way is taken, for example, as a predictor of likely fertility rates.

For all these reasons, it is still the basis of the UIS literacy statistics output.

### **2.2.3 Improvements in UIS use of dichotomous statistics**

However, a number of changes have been made in order to improve the utility of the data:

- Only data based on direct questions about literacy – rather than on an assumption about translating educational attainment (e.g. number of years of schooling) into literacy – have been used; and
- To improve international comparability, UN population data have been used throughout.

## **2.3 Reliability of measurement in UIS regular literacy statistics**

### **2.3.1 Possible sources for literacy data**

There are a number of potential sources for literacy data: administrative data, self-reports in individual population censuses, and declarations in household surveys.

#### *Administrative data*

The quality and availability of data for countries are determined by the strength of their statistical systems and the resources at their disposal, and there are, therefore, sometimes significant gaps in the data coverage. The UIS primarily collects education administrative data mainly because this represents the most effective use of its resources for ongoing monitoring and because administrative data form the basis by which most countries manage their progress towards the EFA goals. A system of good administrative data is also very valuable from the national perspective as it helps in the effective internal management of the system and can be used to monitor or foster change. The exceptions to this are literacy and educational attainment data, where data are better collected through direct contact with individuals.

Administrative data do not usually provide information on the environment or family of the individual other than the basic characteristics of the child's age, gender and sometimes ethnicity. Surveys based on administrative data, however, have the advantage of being economical and can provide information on a regular basis, i.e. as often as the administrative system updates their own records – usually annually. They are also essential in providing information on the operation of the education system.

#### *Self-report in individual population censuses*

The data, whilst universal for the country, are usually limited to just one question, and one person usually responds on behalf of everyone in the household. There may be proxy responses from up to 30% of households, and these will affect reported literacy and may exaggerate the rates for children, women and dependents. The metadata collected by the UIS show the subtle differences between the censuses used in different countries. Moreover, it is often ambiguous as to whether the respondent understands

whether s/he is being asked about literacy in the official national language, the vernacular (which may be the majority language) or the mother tongue.<sup>4</sup>

Conventional cross-national comparisons generally draw upon official national census estimates that are not obtained through direct testing of literacy skills. Censuses vary considerably in how they classify a person as literate, who they consider in the adult population, and how frequently they are carried out. For these reasons, census literacy figures should be treated with caution.

#### *Declarations in household surveys*

National household surveys obtain extensive data on individuals, enabling analytic linkage of individual or household characteristics and circumstances to outcomes. But these surveys are resource-intensive and are undertaken only every few years. Increasingly, household surveys include functional tests replacing the question "Can your household read and write a sentence?" with "Can you read this sentence?"

Cross-national household-based surveys or surveys of individual students have generally been the purview of other agencies with specialised interests in areas such as achievement or literacy, or with interests in collecting data on related social or economic issues such as child health and welfare, fertility or poverty. It is often through the linkage of these data with administrative data that the most useful analysis can be undertaken in areas such as out-of-school children or the impact of cycles of deprivation or poverty. These types of analysis are particularly useful to individual countries to assist in policy-making and programme administration. Therefore, co-ordination between the agencies and entities undertaking different types of data collection is essential.

Where there is no reliable census data, the UIS uses the data generated by the Multiple Indicator Cluster Survey (MICS). These surveys were originally developed in response to the World Summit for Children to measure progress towards an internationally agreed set of mid-decade goals. The first round of MICS was conducted around 1995 in more than 60 countries. A second round of surveys was conducted in 2000 (around 65 surveys) and resulted in an increasing wealth of data to monitor the situation of children and women. The current (third) round of MICS is focused on providing a monitoring tool for the World Fit for Children, the Millennium Development Goals (MDGs), as well as for other major international commitments, such as the United Nations General Assembly Special Session (UNGASS) on HIV/AIDS and the Abuja targets for malaria.

The survey questionnaires are modular tools that can be customised to the needs of a country. They consist of three questionnaires: a household questionnaire, a questionnaire for women aged 15 to 49 years, and a questionnaire for children under the age of 5 (addressed to the mother or primary caretaker of the child). The surveys cover similar topics as in earlier rounds and provide updated estimates or estimates of coverage for other issues. Each of the surveys has included the self-report question on literacy. In addition, in the women's questionnaire in MICS3, there is a direct assessment in which the respondent is asked to read a simple sentence, such as "The rains came late this year".

---

<sup>4</sup> There is also the issue of whether those versed in unwritten languages should be considered 'literate' since literacy came to refer to the skills of reading and writing texts, unwritten languages are ignored.

There continue to be issues in defining a household, sampling, question design and implementation of any household survey. The definitional problem complicates cross-national analysis. The main issue in sampling for a national household survey is the availability of a proper sampling frame which means that there has to be an accurate count of the population and its distribution (see *Section 2.3.2*), but there are also possible biases associated with literacy (see *Section 2.3.3*). The other two issues of question design and implementation are considered in the context of LAMP (see *Section 2.4*).

### **2.3.2 Reliability of population denominator data and other biases**

The first sub-section explains the increasing reliance on international household surveys (rather than on censuses or routine administrative systems). The second sub-section describes the fundamental problem with such surveys for monitoring excluded populations (such as the illiterate), and the third, focuses on specific biases that are associated with literacy.

#### *Increasing reliance on international surveys*

There are three main possible sources for documenting and monitoring population status: censuses conducted approximately every ten years; routine administrative data from vital statistical systems (e.g. for births and deaths) or public sector systems (e.g. schools and clinics); and more generally, from surveys.

**Administrative data:** Routine administrative data on schools and clinics will, in general, exclude a large proportion of the illiterate population. This leaves household surveys.

**Censuses:** Up until at least the early 1990s, only a few countries in sub-Saharan Africa had functioning birth and death registration systems. Many of the population estimates were based on Coale-Brass-Demeny population models (Coale and Demeny, 1966), and as Chris Murray (1987) showed, in several countries the estimates were based on parameters from neighbouring countries (Carr-Hill, 1991). Although donor recognition of the situation and funding of the national statistical infrastructures have led to some improvement, much more is required if countries are to develop strong statistical capacity in order to produce reliable and relevant information to help inform policy.

**Household surveys:** There have been three series of international household surveys carried out in developing countries over the last 30 years: the Demographic and Health Surveys (DHS) sponsored by USAID, the Living Standards Measurement Surveys (LSMS) sponsored by the World Bank, and the more recent Multiple Indicator Cluster Surveys (MICS) sponsored by UNICEF. Generally speaking, the first focuses on adult health and is relatively weak on collecting socio-economic information. The second survey focuses on economic information but is relatively weak at collecting education and health data. The third survey focuses on the education and health of children. While household survey response rates are much higher for developing countries compared to the OECD countries, all three survey series suffer from structural problems that are compounded in a developing country context.

### *Omissions from household surveys*

With rare exceptions, household surveys omit:

1. Those not in households because they are homeless;
2. Those who are in institutions;
3. Mobile, nomadic or pastoralist populations; and
4. Many of those in fragile or disjointed or multiple-occupancy households.

**Homeless:** It is well-known in Europe that the homeless have more difficulty accessing health and social services, poor health and the lowest life expectancy rates. In developing countries, the same is true for street children, who are also deprived of schooling. Yet, rather obviously, household surveys omit the homeless and street children.

**Institutions:** Most households omit those in institutions: care homes, military installations and prisons. Careful reporting usually acknowledges this but, when we are concerned with the distribution of income and wealth, at least the first and third categories are very important. For example, the Welsh, encouraged by Townsend and Gordon (2002), decided to use a household survey as the basis for its allocation of health care resources. The consequence was that the northern areas of Wales – where there are all the nursing and residential homes – lost a considerable amount of resources.

**Mobile, nomadic or pastoralist populations:** The mobile population is usually excluded from household surveys. In particular, the surveys very rarely include gypsies and nomadic populations which have much less access to education, health and social services.

**Fragile or multiple-occupancy households:** Multiple-occupancy households pose a particular problem in many countries in sub-Saharan Africa because new forms of households are developing as a response to the impact of HIV/AIDS and include:

- Grandparent households with young children;
- Large households with unrelated, fostered or orphaned children;
- Child-headed households;
- Single-parent, mother- or father-headed households;
- Cluster foster care – where a group of children is cared for formally or informally by neighbouring adult households;
- Children in subservient, exploited or abusive fostering relationships;
- Itinerant, displaced or homeless children; and
- Neglected, displaced children in groups or gangs (Hunter and Fall, 1998).

This diversity complicates the task of monitoring through classic forms of household surveys. Unfortunately, the three main categories (the homeless, the pastoralists and those in disjointed households) are likely to constitute a significant fraction of the very poor in many developing countries. Moreover, given the security situation – or simply difficulty of transport – in many countries, it can often be difficult for the implementing institutions to carry out a fully representative survey. When repeated, the surveys may take different samples in different areas.

Therefore, in order to have a survey that adequately covers the poor, both at the national and regional level, it is important to examine the extent to which these four situations distort the sampling frame. This is very rarely done, if ever.

### **2.3.3 Other problems of bias and reliability**

In those cases where the indicators are dependent upon surveys, rather than regular administrative sources, there may be problems with the current emphasis on annual reporting. Changes observed over a period as short as a year may be an artefact of the estimation methodology – or simply of sample size – rather than of real change, particularly if the observed change is small. Examples of such indicators are literacy and attendance at school as reported by parents. The periodicity of monitoring ought to take account of the feasibility of data collection, as well as estimates of the magnitude of likely change over time.

In addition, apart from the obvious objections to data on self-reported literacy which is generated through surveys such as MICS (*see Section 2.3.1*), one has to query the reliability of the data or at least the interpretation of the data when some of the gradients of literacy with wealth or of birth certificate with literacy (Carr-Hill, 2008) are in the wrong direction.

### **2.3.4 International and over-time comparability of literacy data**

The problems of comparing literacy data across countries have been well-documented since international literacy statistics were first presented (UNESCO, 1953). Those that have been highlighted (based on self-reporting, whether in censuses or surveys) are differences in the sampling, different wording of the question and differences in the way the questionnaire is administered. The paragraph in this first report is typical of all similar and subsequent remarks:

Although it would be extremely imprudent to draw any comparison of the extent of illiteracy between countries, it may be instructive to follow the course of progress within each country over several decades, especially in those countries which have maintained a continuous series of national censuses with fairly consistent data [sources] on literacy and illiteracy. Some useful lessons may be derived from such a study of the progress of literacy, country by country, during a specified period of time. (UNESCO, 1953)

There are, however, also under-acknowledged difficulties of comparing literacy rates over time even within any one country, if these are based on self-report responses. Response patterns to the same questions vary over time for a variety of reasons, including:

- Increasing familiarity with (and dismissal of) questionnaires, partly as a consequence, changing patterns of non-response to the questionnaires or to the specific items;
- Changing attitudes towards a condition or status, especially when that condition or status is seen as inferior (the obvious example, is the treatment in developed countries of an infant death by the media over the last 50 years); and
- Changing preparedness to report on one's own exposure to such a condition or status, partly because of the implied stigma but also because of a global trend towards privatisation and unwillingness to report on one's own condition.

The effect of familiarity with questionnaires is difficult to gauge. The second pattern will impact on the way in which the interviewers are trained and how they ask the question. The third pattern almost certainly leads to an increase in positive answers. This latter problem will not necessarily affect more sophisticated methods of assessing and monitoring literacy, which are considered in Section 2.4, but where the data are derived from the simple dichotomous question, the most likely effect is to over-estimate the decline.

In the preceding section, we have highlighted possibly a more fundamental difficulty: that of hidden or missing populations, which affects countries differently and which is likely to change in distribution and magnitude over time. The problem is likely to be exacerbated in the future because of the continuous expansion of non- (or under-) regulated urban slums.

## **2.4 Literacy Assessment and Monitoring Programme (LAMP)**

### **2.4.1 The development of functional literacy**

More recently, international (particularly anglophone) discourses have contributed to new understandings of literacy in OECD countries. IALS provided a new meaning for the term *alphabétisme*. Here, 'literacy' refers to broader learning and the mastery of information "to work within the knowledge (information) societies that will dominate the twenty-first century" (OECD, 1997). In this view, once again, literacy has a clear functional role in the context of a globalizing world.

#### *The diversity of current understandings*

The 2006 GMR report on literacy presents four distinct understandings of literacy: literacy as an autonomous set of skills; literacy as applied, practised and situated; literacy as a learning process; and literacy as text.

The most common understanding of literacy is that it is a set of tangible skills – particularly the cognitive skills of reading and writing – that are independent of the context in which they are acquired and the background of the person who acquires them. Some have suggested that a more useful concept would be that of multiple literacies –



that is, ways of 'reading the world' in specific contexts: technological, health, information, media, visual and scientific. (see Street, 2003; Lankshear and Knobel, 2003; Cope and Kalantzis, 2000).

Some scholars have tried to focus on the *application* of these skills in relevant ways. One of the first coordinated efforts to do so was through the development of the notion of 'functional literacy'. In the 1960s and 1970s, this concept initially emphasised the impact of literacy on socio-economic development. Views of functional literacy often assumed literacy could be taught as a universal set of skills (applicable everywhere) and that there was only one literacy, which everyone should learn in the same way. Literacy was seen as neutral and independent of social context.

A third approach views literacy as an active and broad-based learning process, rather than as a product of a more limited and focused educational intervention. Building on the scholarship of Dewey (1916) and Piaget (1961), constructivist educators focus on ways in which individual learners, especially children, make sense of their learning experiences.

A fourth way of understanding literacy is to look at the 'subject matter' (Bhola, 1994) and the nature of the texts that are produced and used by literate individuals. Texts vary by subject and genre (e.g. textbooks, technical/professional publications and fiction), by complexity of the language used, and by ideological content (explicit or hidden). This approach focuses on the analysis of passages of text, locating literacy within wider communicative and socio-political practices that construct, legitimate and reproduce existing power structures (see Gee, 1990; Fairclough, 1991). Language represents one of several modes through which communication is conducted (Kress and van Leeuwen, 2001).

Nevertheless, despite this potential diversity, the definitions currently used by UNESCO and the UIS follow the 'traditional' concept of functional literacy.

*"Literacy is the ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve his or her goals, develop his or her knowledge and potentials, and participate fully in the community and wider society."*

*(Definition of literacy agreed during a June 2003 meeting organized by the UNESCO Institute for Education, the Basic Education Section of UNESCO and the UIS)*

### *The new literacies*

What has become known as the New Literacy Studies (NLS) (as in Gee, 1990; Street, 1996; Barton, 1994; Barton and Hamilton, 1998) starts from the local, everyday experience of literacy in particular communities of practice. The approach is based upon a belief that literacy only has meaning within its particular context of social practice and does not transfer easily across contexts; there are different literacy practices in different domains of social life, such as education, religion, workplace, public services, and family and community activities. They change over time and these different literacies are supported and shaped by different institutions and social relationships.

Detailed studies of particular situations can be revealing about these differences, and in turn, these help reveal the broader meanings, values and uses that literacy has for people in their day-to-day lives. The argument is that any research that purports to increase our understanding of literacy in society must take account of these meanings, values and uses – and, indeed, they are the source of the ideas which statisticians use to interpret their findings.

A major contribution arising from the work cited here has been the attempt to appeal beyond the specific interests of ethnographers interested in the 'local' in order to engage with both educationalists interested in literacy acquisition and use across educational contexts (both formal and informal) and with policymakers more generally. That practical engagement, however, will still need to be rooted in sound theoretical and conceptual understanding if the teaching and studying of literacy are to avoid being simply tokens for other interests. Nevertheless, their 'unfinished business' is the need to analyse and contest what counts as 'literacy' (and numeracy); what literacy events and practices mean to users in different cultural and social contexts – the original inspiration for NLS – but also what are the 'limits of the local'; and, as the writers cited here indicate, how literacy relates to more general issues of social theory regarding textuality, figured worlds, identity and power.

Above all, they need to show how these insights can be incorporated into findings, measurements and comparisons that can be useful for policy.

#### **2.4.2 Literacy assessments: International and national examples**

A wide variety of measurement procedures have been adopted for assessing national levels of literacy and for classifying individuals as literate and illiterate in both international and national contexts. Selected examples are briefly reviewed below and the concluding section draws heavily on the review by Schaeffer (2005), although with some significant differences of emphasis.

##### *International Adult Literacy Survey (IALS)*

IALS was a major cross-sectional study and the first multi-country, multi-language assessment of adult literacy. It was conducted in eight industrialised countries and covered over 40,000 adults, over the period 1994 to 1996. Together with a second wave of surveys, 22 countries or regions were surveyed in the corresponding official languages including “10.3% of the world population and 51.6% of the world GDP” (OECD and Statistics Canada, 2000, p. 87). It was specifically designed to assess literacy and numeracy and is extremely useful for research into this issue.

The data set includes information on the educational programmes that have been followed by respondents and the qualifications they acquired, by type, sponsorship, duration and purpose. Most importantly, respondents' current reading and writing skills were tested. Some background information is asked, including parents' or guardians' education and socio-economic group. The survey also asked respondents' about the mathematics/reading/writing skills that they use at work (which may be relevant for lifelong learning section).

It is important to grasp the underlying model of literacy on which the survey is based.<sup>5</sup> The authors claim that it represents a move forward in theorising literacy in that it moves away from a single dimension of literacy, distinguishing instead three dimensions of literacy (prose, document and quantitative) and five achievement levels on each of these dimensions. It also used a background interview to collect data about adults' uses of literacy, especially in relation to employment. However, from the point of view of those working within NLS, the approach taken in the survey test is still based on a model of literacy that ignores, rather than contributes to, new understandings of the role of literacy in society.

If these are the texts, we also need to examine the practices. Once a real life text, such as a bus timetable, is taken out of its real life context – i.e. that there is any public transport in the first place and that these are provided regularly enough to make it worth generating a timetable – it ceases to be a timetable and it becomes a test item. We have dealt with one text only, but these issues pervade all the test items.

Sophisticated techniques are used to analyse the data and present the findings. But there are three issues: the cultural specificity of the test items; the techniques used to derive a score; and the statistic used in the presentation of the findings.

The first issue is that there are some culturally or educationally specific issues where there is no exact translation. If a measuring instrument is restricted only to those items for which we might assume there are no locally specific differences, then there is a real question about whether such an instrument is measuring anything useful. For example, there are items which refer to the European difference between summer and winter which would be irrelevant in many other countries (and, of course, vice versa).

The second issue concerns the ways in which a single score was derived from test item responses using psychometric techniques based upon the assumption of a single underlying 'dimension' and how these distort interpretations. If, in fact, for a set of test items there are some that reflect a second dimension, then with a large enough sample a one-dimensional model will be inappropriate. This will be detected by some items as 'not fitting'; and, with these techniques, such items tend to be removed. If these kinds of items were only a minority of the starting set, then the remainder will dominate. The initial *balance* of items, therefore, determines crucially what is in the final test instrument and what the final test actually measures. A single dimension allows a simple rank ordering of countries and the publication of international 'league tables'. The political requirement is satisfied by the application of a particular technical model. But how useful is this for measuring literacy?

The third issue is how literacy levels are defined. IALS, for example, uses a complex series of five 'achievement levels' from basic to advanced. There are other, and arguably equally valid, alternative formulations that lead to very different views about the 'problem' of low literacy levels. For example, instead of their 'average' response, one could use a measure of literacy level based upon the 'best' response given by a respondent.

---

<sup>5</sup> The following critique draws on Blum et al. (2001).

### *Adult Literacy and Life Skills Survey (ALLS)*

The Adult Literacy and Life Skills Survey (ALLS) was designed to build on and extend the IALS study in order to:

- identify a set of skill domains grounded in theory and thought to be related to success in life and to a well-functioning economy and society;
- develop approaches to measurement that afford valid, reliable, comparable and interpretable profiles of skill for heterogeneous populations within and between countries, within the natural constraints of a household survey of adults; and
- associate these skill profiles with a range of background variables designed to reflect the social distribution of skill; the factors that influence the level and distribution of skill; the health, social, educational and economic outcomes that are associated with different levels of skill at the micro, meso and macro level; and an individual's own assessment of his/her skill and its relationship to their economic and social success.

Demanding scientific standards were set for the inclusion of items in the final comparative assessment, although the development process did not yield measures of sufficient quality in three domains: practical intelligence, teamwork, and information and communication technology (ICT).

Six countries – Bermuda, Canada, Italy, Norway, Switzerland and the United States – participated in the first round of ALLS data collection, fielding the ALLS pilot study in 2002 and the main data collection in the first and second quarters of 2003. The Mexican state of Nuevo Leon fielded, in 2003, a hybrid assessment that employed the IALS assessment and the ALLS background questionnaire.

### *Bangladesh*

A test of basic learning skills was developed for reading, writing, and oral and written mathematics for an assessment of a national sample of over 5,000 individuals aged 11 years and older living in rural areas. The highest level in each subject area was judged by a panel to be the *minimum* required, for example, to allow people to function in the market place, read passages of simple text independently and write very brief messages. Satisfactory internal consistency measures of reliability were obtained for the items on each subject level (adapted from Greaney et al., 1998).

The process by which the direct assessment tool was developed was especially interesting. Researchers brought in a panel of employers, civil servants and educators to help identify the minimal acceptable levels of performance in each of several skills domains. This led to the development of an assessment tool that aimed at relatively simple literacy and numeracy skills. An initial draft was produced. Personnel were then given two weeks of training in standardized test development. This was followed by several rounds of pre-testing and psychometric testing. The report details many changes as a result of the pre-testing, such as dropping some questions (either because everyone could answer them correctly or because they did not appear to work well), adding others (to increase reliability in the measuring of certain skills), and re-ordering questions, distinguishing written and oral math skills, and dropping the oral assessment test (which sought to test the ability to engage in conversation). This is convenient for

the researcher; whether or not these correspond to the way in which literacy is or was experienced is not reported.

Reading and writing skills were rated on four levels: non-reader/writer, rudimentary level reader/writer, beginner reader/writer and minimally competent reader/writer. Oral and written mathematics were tested separately, the first on three, the second on four levels. Despite the differentiation of levels, in some cases knowing how to identify a number or a simple geometric shape are treated as equivalent skills which are a troubling characteristic of many numeracy tests.

### *Kenya*

This report presents the findings of a 2006 baseline survey of approximately 15,000 households on the status of literacy in Kenya. The survey used self-reporting together with direct assessments of literacy competency skills and was designed to assist in the development of indicators that can be used to design and assess progress on the implementation of education-related programmes.

The study used various instruments to collect the data. Four questionnaires were developed for the survey and targeted the following: households, individuals, institutions providing literacy, and literacy (assessment) tests. The survey was conducted in English, Kiswahili and 18 other local languages, which provided the respondents with the opportunity to respond in their preferred language. 70% of the respondents took the tests in either English or Kiswahili. To arrive at the adult literacy levels, two methods were used: self-reporting (one's ability to read and write) and actual testing (assessment of literacy skills) of the population.

The competency levels in both literacy and numeracy were graded on a scale of one to five, with those who attained Levels 4 and 5 being considered as having the desirable level of mastery of the skills. Those who attained Levels 1, 2 and 3 were considered to have attained the minimum mastery level.

### *Other assessments in East Africa*

Other assessments in East Africa, conducted earlier (Carron et al., 1989) in Kenya, Tanzania and Uganda – have taken a more pragmatic approach, eschewing the psychometric techniques used by IALS and ALLS for some of the same reasons given by Blum et al. (2001). In particular, in order to ensure that the test items were of maximum relevance to the respondents, their content and spread were based on analyses of texts used in literacy programmes and popular daily newspapers.

### *Conclusions of review of assessments*

Indirect assessments by individuals themselves and by third parties within their households (together called “household assessments”) tend to give higher self-ratings than when literacy is measured by direct assessment, even when direct assessments test only rudimentary reading skills (such as the ability to decode and read aloud a simple sentence). The size of the bias varies from context to context but is sometimes very large and may bias our understanding of literacy differentials across groups. This bias is often mistakenly called over-statement; the respondents may be quite correct in terms of how useful literacy is to them.

Sorting individuals into literate and illiterate categories based on whether or not they have completed a certain number of years of school (i.e. four, five or six years) is seen by some (e.g. Schaffner, 2005) as a highly inaccurate procedure. This is a misunderstanding of the nature of measurement because the definition of the concept determines the appropriate measurement procedure: in this case, if one is concerned with schooled literacy, then number of years of schooling is a reasonable measure; if one is concerned with life skills, then the number of years of schooling is likely to be a highly inappropriate measure.

Our current understanding of directly assessing literacy skills is limited. Simple skills (such as the ability to read aloud a simple sentence or the ability to perform simple problems in addition, subtraction, multiplication and division) can be tested reasonably accurately and with relative ease. The testing of higher-level skills (such as reading comprehension and the highly diverse range of mathematics skills beyond simple arithmetic) appears to be fraught with many more difficulties.

A push should be made to make public more detailed discussions of the process by which the assessments were developed, experiences with experimental versions employed in pre-testing, and the costs of testing and fielding the assessments.

It is important to devote serious effort not only to theoretical discussions of “what literacy is”, but also to practical discussion of “which aspects of literacy can we hope to measure well, and how.”

The difficulty of direct assessment for most literacy skills beyond simple decoding of text has at least two implications. First, all those designing new surveys should be encouraged to incorporate simple tests of decoding skills in which respondents are asked to read aloud a simple sentence written on a “flash card”, which was the approach in IALS and MICS. This approach is almost as easy as asking for a household response regarding an individual’s literacy and appears to provide a much more accurate answer. (Expert care must, of course, be taken in developing, pre-testing and translating the sentences to be employed in the assessments into multiple languages.)

Even though the ideal notion of literacy that survey designers would like to measure may involve higher-level skills such as reading comprehension, decoding may be the highest level of reading skills for which they can obtain an accurate measure. Many survey designers will also find it infeasible or undesirable to incorporate more than a very simple test of literacy in their surveys, thus encouraging all survey designers (even those who plan also to test literacy at higher levels) to incorporate a flash card test will facilitate comparisons across groups, places and time periods.

Second, attempts to measure more than simple decoding skills should be viewed as developmental and experimental. Detailed reports on how the measures were developed and implemented, how much the process cost, difficulties encountered in the field, and how the measures performed should be disseminated broadly within the development community. In most cases, survey designers should also keep their objectives modest. Even though ideal concepts of literacy may involve the ability to perform a wide range of 'literacy tasks', they should seek to measure well the abilities to perform a small number of tasks rather than seeking to measure many abilities while risking measuring none of them well. A variety of more specific recommendations are presented at the end of the report.

### 2.4.3 LAMP assessment

The Literacy Assessment and Monitoring Programme (LAMP) is based on a sample survey of adults (aged 15 years or more) to identify the full range of literacy – from the most basic reading and numeracy to the skills needed to participate fully in a learning society. The target population is the whole population of adults (aged 15 and older) currently living in the country. People in institutions or in inaccessible areas *can be excluded*, provided that they represent only a small percentage of the total population. Reporting is usually on a national level, but further breakdowns can be provided if minimum sample size requirements are met.

The background questionnaire collects information such as family background and characteristics (parental education and occupational status), individual attributes (age, gender, language proficiency, and educational attainment and employment status), participation in education and training, and literacy activities including the use of ICTs and other literacy practices. In addition, variables on the quality of life and a series of questions specific to the domains being measured by the assessment may be incorporated.

The test to be administered to high-skilled individuals includes two item sets:

1. A set of common items (IALS) will be used to relate national literacy and numeracy proficiency to IALS scales. This design feature satisfies the objective of benchmarking national results to international standards.
2. A set of LAMP common items serve to:
  - relate the proficiency on these LAMP common items to the IALS scale;
  - increase the representation of items with national contexts; and
  - provide national planners and researchers with an in-depth understanding of how the test items relate to the underlying theory and the process of item development.

#### *Filter assessment*

A 'filter test', based on a selected sub-set of items drawn from IALS and LAMP common items, is used to assign individuals to a low-skilled or a high-skilled group. Low-skilled individuals will be administered a small number of low-difficulty items selected from the IALS/LAMP common item pools. These items will allow individuals to be placed on the LAMP proficiency scales and the component results to be linked to these scales. Higher-skilled individuals will receive another set of medium- to high-difficulty items from IALS/LAMP common item pools.

The component skill measures that make up reader profiles are measured by:

1. **Alphanumeric perceptual knowledge and familiarity:** Recognise the letters of the alphabet and recognise single digit numbers; some of the items are very simple.
2. **Word recognition:** Recognise common words that appear frequently in print. These common words are expected to be in the listening /speaking lexicon/vocabulary of an individual who is a speaker of the target language.

3. **Decoding and sight recognition:** Produce plausible pronunciations of novel or pseudo words by applying knowledge of the sight-to-sound correspondences of the writing system, and do this accurately, rapidly and with ease.
4. **Sentence processing:** Process simple written sentences and apply language skills to comprehend – accurately, rapidly and with ease.
5. **Passage reading:** Process simple written passages and apply language skills to comprehend – accurately, rapidly and with ease.

Data obtained in the components assessment cannot be compared across countries or groups with different languages as the language learning process may also differ.

#### *Reporting Level in LAMP*

**Level 1** indicates persons with very poor skills, where the individual may, for example, be unable to determine the correct amount of medicine to give a child from information printed on a package.

**Level 2** respondents can deal only with material that is simple, clearly laid out, and in which the tasks involved are not too complex. It denotes a weak level of skill, but more hidden than Level 1. It identifies people who can read but test poorly. They may have developed coping skills to manage everyday literacy demands, but their low level of proficiency makes it difficult for them to face novel demands, such as learning new job skills.

**Level 3** is considered a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society. It denotes roughly the skill level required for successful secondary school completion and college entry. Like higher levels, it requires the ability to integrate several sources of information and solve more complex problems.

**Levels 4 and 5** describe respondents who demonstrate command of higher-order information processing skills.



## Chapter 3. Global trends

### 3.1 Approach

The data collated by the UIS were for *around* the year 1990 and *around* 2000; the actual dates could have been up to five years on either side of those dates. This was seen as the most appropriate approximation<sup>6</sup>.

Two sets of indicators are considered: the absolute changes in the literacy rate and number of illiterates and the relative change in the literacy rate and the percentage change in the number of illiterates. The different indicators respond to different questions. The former pair of indicators are the headline figures, and the change in literacy rate should be carefully interpreted because the effort to reduce illiteracy varies with the level – for example, an increase from 60% to 70% does not require the same effort as from 85% to 95%. The latter pair of indicators is mostly useful for assessing equity across groups.

For the reasons given at the end of the preceding chapter, the presentation here is based on statistics about literacy understood as referring to the answers to simple and straightforward census question. In some cases, the data have been taken from surveys; and in several cases, the up-to-date data have been obtained using the Forecasting Model.

For all the countries where census or household survey data are used (nearly all), the estimates of literacy are likely to be over-estimates relative to what would have been the results of a test. For some countries, there is also the problem of proxy responses by the head of household which may well further inflate the estimates.

Numerically, the problem of illiteracy is most significant in the most populous countries. These are: Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan (the E9 countries). In addition to the overall global picture and breakdown by EFA regions, the report focuses on this group of countries. It should be noted that, in constructing the regional figures, the UIS made estimates where data was missing; this particularly affects the values for the E9 countries which reported missing data for the 1990s for Brazil and Pakistan.

---

<sup>6</sup> If we had been analysing individual country data, then it would have been important to calculate an annual rate of change and use that figure as the basis for analysis. But, given that the focus here is the data aggregated to regional groupings, the only way to have adjusted for this would have been to estimate the literacy and population levels at 1990 and 2000 and then combine. Whilst statistically more accurate, it would have been less than transparent.

## **3.2 Trends in literacy for all adults aged 15 years and older**

### **3.2.1 Overall trends in adult literacy**

The good news is that there is an overall global increase of about 6% (from 76% to 82%) in rates of adult (aged 15 years and older) literacy (representing a relative increase of 8%), and absolute increases of over 9% (an 11% relative increase) in Asia and nearly 8% (a 15% relative increase) in Africa. The other UNESCO regions already had figures quite near 100%, so one would not expect much increase; even South America only registered a 2% increase.

Within the EFA regions, the largest recorded increases in rates among the developing countries are in the Arab States (from 58% to 71%) and South and West Asia (from 48% to 60%), with absolute increases of 12% each and relative increases in their rates of 21% and 25% respectively. An increase of above 9% is reported in East Asia but a below-global-average increase of just over 5% is seen in Sub-Saharan Africa (from 54% to 59%). While there is an overall decrease of 90 million illiterates worldwide (representing a 10% decrease overall), of which 87 million were in developing countries, this is comprised of a decrease of around 100 million illiterates in East Asia (a 45% decrease) together with an *increase* of 19 million illiterates in Sub-Saharan Africa (a 15% increase).

The E9 countries have experienced an 11% increase in literacy rates, representing a relative increase of 17%. The largest absolute percentage increase has been in Egypt (27%) and the smallest in Mexico (3%), which are also the countries with the largest and smallest relative increases in the literacy rate. There has been an overall decrease of 110 million adult illiterates in this group of countries, reflecting an 18% decrease, but this mostly reflects the decreases of 98 million and 17 million illiterates in China and India respectively. Indeed, despite a just-above-average increase in the literacy rate in Bangladesh, the number of illiterates has increased by 2.6 million.

Although there has been an increase of 6% in the literacy rate among least developed countries, there has nonetheless been an increase of 25 million in the absolute number of adult illiterates in those countries.

### **3.2.2 Literacy trends for men and women**

The global literacy rate for women increased by more than 7% (from 70% to 77%) compared to fewer than 5% (from 83% to 87%) for men. When compared to their respective starting points, women appear to have done even better, with a relative increase in the literacy rate of 6% for men and 10% for women. But, whilst the decrease in the number of adult illiterates had been greater for women (49 million compared to 41 million for men) because the literacy rates for men are higher, the relative changes are in men's favour: a decrease of 13% compared to 9% for women.

When broken down by EFA regions, literacy figures appear to have improved most in developing countries, with absolute increases for women of 11% compared to 7% for men and even better relative increases of 19% and 9% respectively. But there is the same pattern with the percentage decreases in the numbers favouring men (13%) compared to women (9%). Among developing countries, it is again the Arab States and South and West Asia where there has been the biggest improvement, with 11% in both

regions for men and 14% and 13% respectively for women. But of the 100 million decrease in the number of illiterates in East Asia, it is women who have benefited most with decreases of 69 (or 70) million, compared to 33 million for men. However, the relative decreases still slightly favour men: 47% compared to 44%.

The E9 countries have experienced an 8% increase in the literacy rate for men and 14% for women: these representing relative increases of 11% and 25% respectively. The largest difference between the changes in rates for men and women has been in China (8% for men and 18% for women) and the smallest in Egypt (the country with the largest absolute percentage increase). There has been an overall decrease of 47 million in the number of male illiterates (reflecting a 20% decrease) and 64 million in the number of female illiterates (reflecting a 16% decrease), but the decrease for males is made up of 32 million and 15 million male adults in China and India respectively, whilst the decrease for females almost entirely reflects a decrease of female adult illiterates in China. In Bangladesh, the number of illiterates has increased by 1.4 million men and 1.2 million women.

In least developed countries, the gap between men and women is smaller, with both recording an increase of 6 points (which represented a relative increase of 10% for men and 16% for women). The number of illiterates has also increased for both sexes: by 8 million for men and 17 million for women, and these represented relative increases of 13% and 17% respectively.

### **3.3 Literacy trends for youth aged 15 to 24 years**

#### **3.3.1 Overall trends in youth literacy**

Compared to adult literacy, there has been a smaller overall global increase of about 4% in rates of youth (aged 15 to 24 years) literacy. Increases of nearly 8% are reported in Africa and 5% in Asia. The other UNESCO regions already had figures quite near 100%, so one would not expect much increase; even South America only registered a 3% increase.

Within the EFA regions, the largest recorded increases in rates among the developing countries are in the Arab States and South and West Asia, with increases of 10% and 14% respectively, followed by an above-global-average increase of 6% in Sub-Saharan Africa. In relative terms, the increases are 14%, 23% and 9% for Arab States, South and West Asia and Sub-Saharan Africa respectively. While there is an overall decrease of 30 million young adult illiterates worldwide, this includes a decrease of around 13 million in East Asia, a decrease of 18 million in South and West Asia, but an *increase* of 5 million in Sub-Saharan Africa. The Arab States show a decrease of 2 million, and nearly 1.5 million in Latin America.

The E9 countries have experienced a 6% absolute increase in youth literacy rates and an 8% relative increase, with an overall absolute decline of 34 million in the number of illiterates, representing a 30% decrease. The largest absolute percentage increase in rates has been in Bangladesh (19%), followed by India (15%) and Nigeria (13%). The smallest increase has been in Mexico with just above 2%. The largest relative increase in rates has been in Bangladesh (42%), followed by India (23%) and Egypt (16%). The main absolute declines have been in China (12 million) and India (17 million), reflecting percentage decreases of 94% and 27% respectively.

Although there has been an increase of 8% in the youth literacy rate among least developed countries, reflecting a 14% relative increase, there has been an increase of 3.5 million in the number of youth illiterates.

### **3.3.2 Literacy trends for young men and women**

The global rate for young women increased by more than 5% (from 79% to 85%), compared to under 3% (from 88% to 91%) for young men. When compared to their respective starting points, women appear to have done better, with a relative increase of just over 3% for men and 7% for women. But, whilst the decrease in the number of youth illiterates has been more pronounced for women (19 million compared to 11 million for men), the relative changes are slightly in men's favour: 19% decrease compared to 17% for women.

When broken down by EFA regions, literacy figures for the 15- to 24-year age group have improved most in developing countries, with absolute increases of 7% for women compared to 4% for men and even better relative increases of 9% and 4% respectively. With this breakdown, women do slightly better than men in terms of overall numbers with the percentage decrease at 19% for women compared to 17% for men. Among developing countries, the Arab States and South and West Asia has seen the biggest improvements in absolute rates: 7 percentage points for men and 13 for women in the former, and 11 for men and 18 for women in the latter, reflecting improvements relative to their starting literacy rates of 9% and 20% and 15% and 36% respectively. In Sub-Saharan Africa, there appear to have been respectable increases in the rates, with 5% and 6%. But in numerical terms of reducing the number of 15- to 24-year-old illiterates, East Asia and South West Asia had the biggest improvements, with decreases of 3 million and 10 million men and women and 8 million and 11 million men and women respectively, representing relative declines of 51% and 73% and 23% and 19% respectively. Despite the increases in rates, there has been an increase in the number of youth illiterates in Sub-Saharan Africa of 2 million.

The E9 countries have experienced an increase in literacy rates of 4% for male youth and 8% for female youth, reflecting a 5% and 11% relative improvement respectively. The largest difference between the sexes was in Nigeria, with a 6% increase for young men and a 19% increase for young women, reflecting percentage relative increases of 7% and 30% respectively. There were also quite large differences in Bangladesh (16% for young men and 22% for young women) and India (11% for young men and 18% for young women). In numerical terms, the numbers of male and female young illiterates have declined by 12 million and 21 million, reflecting equal relative declines of 30%. The largest declines have been in China with 3 million and 9 million young men and women, and in India with 7 million and 10 million.

In least developed countries, the gap between male and female youth is quite small, with male youth recording an increase of 7 percentage points compared to 9 for women, although those represent a relative increase of 12% for men and 17% for women. The number of youth illiterates increased by 1 million male youth and 2.6 million female youth, and this represented relative increases of 5% and 10% respectively.

### **3.4 Literacy trends for persons aged 25 years and older**

#### **3.4.1 Overall trends in older adult literacy**

There has been a slightly greater overall global increase of about 7% in the literacy rates of mature adults (aged 25 years and older), with an 11% increase in rates in developing countries and increases of nearly 8% in Africa and 5% in Asia. The other UNESCO regions already had figures quite near 100%, so one would not expect much increase; even South America only registered a 3% increase.

Within the EFA regions, the largest recorded increases in rates among the developing countries are in the Arab States, East Asia and South and West Asia, with increases of 14%, 13% and 12% respectively. In relative terms, the increases are 28%, 17% and 28% respectively. Sub-Saharan Africa has shown a below-global-average increase of 5%, but a global average relative increase of 10%. There has been a global decrease of 60 million mature adult illiterates (from 698 million to 638 million), but this is because there has been a large decrease of 89 million in East Asia while increases of 12 million and 14 million in South and West Asia (from 302 million to 315 million, an increase of 4%) and Sub-Saharan Africa (from 95 million to 109 million, an increase of 15%) respectively. The Arab States and Latin America show increases of 4 million and 3 million respectively.

The E9 countries have experienced a 14% absolute increase in literacy rates and a 24% relative increase, with an overall absolute decline of 77 million (from 518 million to 441 million) in the number of illiterates, representing a 15% decrease. The largest absolute percentage increase in rates has been in Egypt (35%), followed by China (18%), then India, Indonesia and Nigeria (between 12% and 13%). The smallest increase, just above 4%, was in Mexico; while the largest relative increase in rates was in Egypt (100%), followed by Bangladesh (31%), India (30%) and Nigeria (27%). The most important absolute decline has been in China (86 million), with smaller but still substantial declines of 5.4 million and 2.1 million in Indonesia and Egypt respectively, reflecting percentage decreases of 27% and 16%.

Although there has been an increase of 5% in the mature adult literacy rate among least developed countries, reflecting an 11% relative increase, there has been an increase of 21 million (from 116 million to 137 million) in the number of mature adult illiterates.

#### **3.4.2 Literacy trends of older men and women**

The global rate for mature women increased by more than 8% (from 66% to 75%), compared to under 6% (from 81% to 86%) for mature men. When compared to their respective starting points, women appear to have done better, with a relative increase of just over 7% in the rates for men and 13% for women. But, whilst the decrease in the number of mature adult illiterates has been about the same (30 million each), the relative change is slightly in men's favour: 12% decrease compared to 9% for women.

When broken down by EFA regions, literacy figures for mature adults have improved most in developing countries, with an absolute increase for women of 14% compared to 9% for men and even better relative increase of 27% and 12% respectively. However, men do better than women with the percentage decreases being twice as high: 12% for men compared to 6% for women. Among developing countries, East Asia, the Arab

States and South and West Asia have experienced the biggest improvements in absolute rates of 8% for men and 18% for women, 13% for men and 14% for women and 11% for men and 12% for women respectively, reflecting improvements relative to their starting literacy rates of 9% and 26%, 21% and 40%, and 21% and 44%. However, in Sub-Saharan Africa, the increase has been only 5% for both, with men slightly higher than women. But in numerical terms of reducing the number of mature adult illiterates, East Asia has seen the biggest improvement, with decreases of 29 million and 30 million men and women, representing relative declines of 43% and 46% respectively. In contrast, there have been deteriorations in the Arab States, South and West Asia and Sub-Saharan Africa: in the Arab States and South and West Asia, the number of mature male illiterates has fallen by 0.6 million and 4.4 million, reflecting relative drops of 4% in both cases, whilst the number of mature female illiterates has increased by 4.4 million and 16.6 million, reflecting relative increases of 16% and 9% respectively. In Sub-Saharan Africa, the number of mature male and female illiterates has increased by 4.1 million for men and 10.3 million for women, reflecting relative increases of 11% and 18%.

The E9 countries have experienced an 11% increase in literacy rates for mature males and 18% for mature females, reflecting a 15% and 37% relative improvement respectively. The largest difference between the sexes was in China, with an 11% increase for mature men and a 25% increase for mature women, reflecting percentage relative increases of 14% and 44% respectively. The only other difference larger than the average was in Indonesia (9% for mature men and 17% for mature women). In numerical terms, the numbers of male and female older illiterates have decreased by 35 million and 42 million respectively, but in relative terms these reflect an advantage for men as their numbers have declined by 19% compared to 13% for women. The spectacular decline in adult illiterates has been in China with 29 million and 57 million young men and women.

In least developed countries, the gap between male and female mature adults is small, with both recording an increase of just under 5%, although this represented a relative 9% increase for men and 21% for women. The number of mature illiterates increased by 7.5 million male mature adults and 14.1 million female mature adults, which represented relative increases of 16% and 20% respectively.

### **3.5 Discussion: Overall trends, comparing age groups and gender**

There have been modest improvements in literacy rates overall (6%) over the last decade, but the number of illiterates has fallen by a slightly better percentage of 10%. These global figures include quite substantial improvements in East Asia and especially China; while there have been much slower improvements in other parts of the world. In some cases – especially the Arab States, Bangladesh and Sub-Saharan Africa – there have been increases in the number of illiterates. The figures for Europe show a sharp decline of 36%, from 9 million to just fewer than 6 million.

Improvements in youth (aged 15 to 24 years old) literacy have been lower than among mature adults (aged 25 years and older), and the pattern in the large geographical groupings is similar. Among all adults, women's literacy rates have improved more than men's, and the number of women illiterates has decreased more than that of men. Nonetheless, the rate of decrease in illiterates is in men's favour, and the same pattern is reproduced among youth (aged 15 to 24 years old), mature adults (aged 25 years and older) and in the large geographical groupings.

## Chapter 4: Projections

### 4.1 Projections

Policy imperatives over the last 30 years have spurred the importance of monitoring closely the overall development experience and prospects of developing countries and making reasonably precise forecasts of future literacy rates. This imperative has been reinforced by the pronouncements for EFA and the commitment to MDGs, and thus, it would be very useful to have a forecast of literacy rates over the succeeding 10 to 20 years.

### 4.2 Previous methodologies

UNESCO's first set of worldwide estimates and projections of illiteracy, *Estimates and Projections of Illiteracy* (UNESCO, 1978a), presented estimates and projections of the illiterate population by gender for the age group 15 to 19 years for 137 countries or territories, with totals for all major regions of the world for the years 1970 and onwards at five-year intervals up until the year 2000. It also gave estimates and projections of the illiterate population by gender for the population aged 15 years and older for 109 countries or territories, with totals for all major regions for the years 1970 and onwards at five-year intervals up until 1990. The estimates and projections were obtained from the application of a set of regression equations that the Statistics Division (in co-operation with outside consultants) had derived earlier from an analysis of the data in its database of school enrolment ratios and statistics of educational attainment and illiteracy (UNESCO, 1978b).

The reasoning behind the 1978 approach was based on three interlocking arguments. First, if a person had not achieved literacy by the time he/she entered the 15 to 19 years age group, then, unless this was subsequently corrected by some means of adult formal or non-formal education, it could be assumed that he/she would still be illiterate upon reaching the age group 25 to 29 years at the time of the next census ten years later, and so on to higher age groups at succeeding censuses. Second, assuming that the incidence of illiteracy in the 15 to 19 years age group was basically related to the percentage of persons in that age group that had either never attended school or did not complete their primary education, then the future incidence of illiteracy in this age group could be estimated from projections of future participation in primary education. Third, given the projected incidence of illiteracy in the 15 to 19 years age group and given the assumptions about the future impact of adult education (whether formal or non-formal), and given projections of future trends in mortality and net migration by age group, the total number of illiterates for all age groups aged 15 years and older could be estimated.

Thus, in the projection exercise, the school enrolment ratio for the 6 to 11 years age group was utilised for estimating future illiteracy rates for the 15 to 19 years age group. These, in turn, together with the United Nations demographic projections, were then utilised for estimating future illiteracy rates for the population aged 15 years and older. They argued that future trends in the illiteracy of the adult population largely depend on trends in access to and participation in primary education. Similar projections were made for following years and decades.

Following the publication of the estimates in 1985, the Statistics Division embarked on a full-scale projection exercise to establish worldwide country-by-country illiteracy estimates at intervals running up to the year 2000, taking into account a revised set of population projections that had become available from the UNSD. Instead of basing estimates of literacy on participation/non-participation in primary school, estimated future literacy/illiteracy rates were based on census data on literacy/illiteracy alone, on the assumption that the evolution of a country's literacy rate over time can be described by a logistic curve<sup>7</sup>, the general properties of which were assumed to be universally applicable although its precise form for any given country needed to be inferred directly from that country's census data (UNESCO, 1995b). The new methodology basically amounted to projecting future literacy rates from the logistic trend (curve) that best fitted the available census data. A more informal methodology was adopted for countries for which no census data were available (UNESCO, 1990). Some updating was also undertaken annually for individual countries as new census data became available.

The whole approach was model-based, which sometimes involved smoothing the observed data, i.e. using model generated estimates rather than the actual data. In addition, a constraint was included to ensure female literacy rates remained below male.

### **4.3 Current UIS projection methodology**

Based on recommendations by the UIS Advisory Board on Literacy Evaluation (ABLE) in 2004, the UIS developed a new approach to projecting the dichotomous variable of self-defined literacy which is fully based on reported empirical data for the starting conditions. Moreover, it does not impose overly rigid structural assumptions about future trends.

#### **4.3.1 Population projection**

The standard demographic projection model starts with an empirically given population distribution by age and sex. It is performed in either one- or five-year steps using correspondingly one- or five-year age groups. The population projections used here are produced by the United Nations Population Division (UNPD). They were originally performed in five-year steps but were then interpolated to single years of age and time. In fact, as the projections model only uses the single year data set, this is what is discussed below.

This demographic projection model is referred to as a cohort component model because it projects along cohort lines and considers all three components of change, namely fertility, mortality and migration. This is done in the following way: every year, every man and woman is moved up by one age group according to assumed patterns of age- and sex-specific mortality rates. In simpler words, not everybody is made one year older every year, because some people drop out of the model because they are assumed to die over the course of that year. Similarly, assumed age- and sex-specific migration schedules are applied to all men and women, because people may leave or enter the country at each age. Finally, an age-specific fertility pattern is applied to all women in reproductive age, and the resulting children (after adjusting for infant mortality) are added to the bottom of the age pyramid to make up the new age group of 0 to 1-year-

---

<sup>7</sup> A logistic curve has a slow rate of increase from 0%, fastest in the middle and then slows down as the rate approaches 100%.



olds in the next year. This is the standard approach to making demographic projections (see e.g. Keyfitz, 1985).

If the transition states are defined by educational attainment, women with higher education almost universally tend to have lower fertility than those in the lowest educational categories. Lutz and Goujon (2001) clearly show in their projections how changes in the educational composition of the population lead to changes in the aggregate fertility levels, even if fertility levels within each educational group do not change. In other words, an improvement in the educational attainment of reproductive-age women typically leads to declining fertility rates, an effect that comes on top of possible fertility declines within educational groups.

The multi-state model described above served as the starting point for designing this specific model for literacy projections. However, the method finally chosen does not allow for different vital rates by literacy status because of the potential confusion arising from inevitable discrepancies between the literacy projections and the UN population projections. This does not imply that there is anything wrong with the UN population projections. The discrepancy is simply due to the fact that the dynamics of a system that is assumed to be homogeneous (no differentials by literacy) over time becomes different from that which explicitly considers certain sources of heterogeneity (e.g. different fertility rates for literate and illiterate populations).

In other words, the specific contribution of this literacy projection model is to project the future proportions of literate men and women for each age group and each year, and then apply them to the UN population projections.

### **4.3.2 Projecting literacy**

Recent, broader understandings of literacy have given rise to efforts to empirically assess different dimensions of literacy skills and, accordingly, group persons according to their performance. However, these assessments only exist for a few countries and there are hardly any consistent time series available. For this reason, any longer-term global analysis – including efforts to project literacy for most countries in the world – must still refer to the old dichotomous literacy variable as it has been used in censuses and surveys in many countries for decades. Similarly, the projection model described here also refers to this dichotomous variable, which has been defined by UNESCO as “the ability to read and write, with understanding, a simple short statement on everyday life” (UNESCO, 2005, p. 64). Depending on the country and the data collection instruments (census or surveys), this information – which is typically recorded by age and sex – is either based on the respondent's subjective report about his/her literacy abilities or a report of the head of household about his/her assessment of the literacy skills of each household member.

The new model, thus, takes the patterns of age- and sex-specific literacy rates as reported by countries as the starting point of the projections that are carried out by single year of age and single year of time. This allows users to have different jump-off years for the projections (depending on the year for which the most recent national data are available), as well as common target years (such as 2015) for all countries. The literacy projections are directly based on the medium projections of national populations by age and sex (in single years of age and time), as given in the most recent assessments of the UNPD. The model then superimposes onto these population projections assumed

future patterns of age-specific proportions of literate men and women starting at the age of 15.

It is assumed that all transitions from the illiterate to the literate state happen before the age of 15 and that once a person defines himself/herself as literate this status is maintained throughout life<sup>8</sup>. Under this assumption, one chooses between a pre-defined trend scenario (an extrapolation of the logits of the values observed for the 15 youngest cohorts), a “constant transition to literacy” scenario or any specific user-defined scenario. If one wants to allow for change in literacy status after the age of 15, the user can also make specific assumptions about how cohorts may further gain or even lose literacy after this age. Based on the chosen scenario, the projections give absolute numbers and proportions of literates for single years of time and reaggregated to five-year age groups for men and women up to 2030 and for broader age groups (15 to 24 years or 15 years and older). The software allows users to produce results in different formats.

### **4.3.3 The new Global Age-Specific Literacy Projections Model (GALP)**

The projections show only small overall projected global progress between 2005 and 2015, with the total female illiterate population aged 15 years and older falling from 444 million to 413 million, but total male illiterates only falling from 248 million to 244 million. The total for both sexes fell from 692 million to 657 million. The major reduction occurred among females in the 15 to 24 years age group, from 66 million to 48 million illiterates. The decline among the 25 to 64 years age group was from 290 million to 277 million. For males, the decrease in the 15 to 24 years age group is only from 48 million to 44 million, and the number of illiterates among the 25 to 64 years age group is projected to rise. For women, there is hardly any change among the 65 years and older age group, but among men, there is projected to be a fall from 42 million to 39 million.

For females, when analysed in terms of regions, the largest overall reduction among the 15 years and older group will be in East Asia and the Pacific, with a reduction from 75 million to 52 million. However, an increase is projected in Sub-Saharan Africa, from 70 million to 73 million. Among the 15 to 24 years group, the largest decrease will be in South and West Asia, from 39 million to 25 million; and there is even a decrease among female youths in Sub-Saharan Africa. Among the 25 to 64 years group, the largest reduction will be in East Asia and the Pacific, from 35 million to 22 million, whilst in all other regions there is projected to be very little movement. For the 65 years and older female group, despite the overall lack of movement, there will be a drop in East Asia and the Pacific, from 37 million to 28 million, but a rise in South and West Asia, from 31 million to 39 million.

---

<sup>8</sup> Virtually all analyses of trends in the traditional dichotomous variable of self-defined literacy assume that, once a cohort has reached its maximum literacy in its youth (around the age of 15), the proportion of literates will stay constant along cohort lines. This assumption is partly based on empirical analysis (UNESCO, 1995) and partly on plausible reasoning.

In terms of regions, the largest overall reduction among the 15 years and over males will be in East Asia and the Pacific, with a reduction from 30 million to 21 million. But, there is projected to be an increase in Sub-Saharan Africa, from 49 million to 59 million. Among the 15 to 24 years age group, the largest decrease will be in South and West Asia, from 25 million to 19 million, but there is a increase among male youths in Sub-Saharan Africa, from 16 million to 19 million. Among the 25 to 64 years age group, despite the overall increase, there will be a reasonably large reduction in East Asia and the Pacific, from 14 million to 10 million, partly compensated by a small increase in South and West Asia, from 95 million to 97 million; whilst in all other regions, there is projected to be very little movement. For the 65 years and over male age group, despite the overall lack of movement, there will be a drop in East Asia and the Pacific, from 14 million to 9 million, but a rise in South and West Asia, from 17 million to 19 million.

**Table 4.1 Projected number of total illiterates by region and age group, for the years 2005, 2010 and 2015**

	<b>Total illiterates</b>			
	<b>15+ years</b>	<b>15-24 years</b>	<b>25-64 years</b>	<b>65+ years</b>
<b>2005</b>				
Arab States	44,740,050	6,726,500	31,288,790	6,724,760
Central and Eastern Europe	7,910,190	788,890	4,230,140	2,891,160
Central Asia	213,740	38,380	59,340	116,020
East Asia and the Pacific	104,707,700	4,694,360	48,554,080	51,459,260
Latin America and the Caribbean	35,617,970	3,586,290	23,737,930	8,293,750
North America and Western Europe	1,470,800	25,570	403,540	1,041,690
South and West Asia	379,331,600	64,033,110	266,934,300	48,364,190
Sub-Saharan Africa	118,403,000	33,838,600	73,165,220	11,399,180
<b>World</b>	<b>692,395,100</b>	<b>113,731,700</b>	<b>448,373,300</b>	<b>130,290,000</b>
<b>2010</b>				
Arab States	43,771,080	5,030,420	31,443,210	7,297,450
Central and Eastern Europe	7,154,870	740,490	3,878,160	2,536,220
Central Asia	197,740	50,820	59,010	87,910
East Asia and the Pacific	89,088,690	4,100,820	39,664,400	45,323,470
Latin America and the Caribbean	33,502,460	2,850,520	21,935,050	8,716,890
North America and Western Europe	1,155,320	16,930	322,340	816,050
South and West Asia	378,268,800	55,159,140	270,334,600	52,775,060
Sub-Saharan Africa	124,718,600	35,311,170	77,002,750	12,404,680
<b>World</b>	<b>677,857,600</b>	<b>103,260,300</b>	<b>444,639,500</b>	<b>129,957,700</b>
<b>2015</b>				
Arab States	42,155,850	3,915,860	30,339,140	7,900,850
Central and Eastern Europe	6,434,200	686,490	3,622,550	2,125,160
Central Asia	195,890	64,690	75,080	56,120
East Asia and the Pacific	73,793,310	3,386,850	32,800,280	37,606,180
Latin America and the Caribbean	31,155,700	2,341,450	19,956,750	8,857,500
North America and Western Europe	860,180	13,250	268,830	578,100
South and West Asia	371,019,300	43,905,300	269,581,100	57,532,900
Sub-Saharan Africa	131,644,900	36,837,620	81,398,480	13,408,800
<b>World</b>	<b>657,259,300</b>	<b>91,151,510</b>	<b>438,042,200</b>	<b>128,065,600</b>

**Table 4.2 Projected number of male illiterates by region and age group, for the years 2005, 2010 and 2015**

	<b>Male illiterates</b>			
	<b>15+ years</b>	<b>15-24 years</b>	<b>25-64 years</b>	<b>65+ years</b>
<b>2005</b>				
Arab States	14,349,760	2,115,510	9,991,580	2,242,670
Central and Eastern Europe	1,627,390	254,090	781,810	591,490
Central Asia	69,520	25,160	23,310	21,050
East Asia and the Pacific	29,990,800	2,166,020	13,683,680	14,141,100
Latin America and the Caribbean	15,526,820	2,062,160	10,242,620	3,222,040
North America and Western Europe	501,090	13,870	188,450	298,770
South and West Asia	137,343,600	24,775,030	95,142,620	17,425,950
Sub-Saharan Africa	48,790,390	16,089,260	28,457,450	4,243,680
<b>World</b>	<b>248,199,400</b>	<b>47,501,100</b>	<b>158,511,500</b>	<b>42,186,750</b>
<b>2010</b>				
Arab States	13,867,440	1,738,820	9,725,710	2,402,910
Central and Eastern Europe	1,489,760	251,480	755,510	482,770
Central Asia	79,720	35,380	29,240	15,100
East Asia and the Pacific	25,485,680	2,054,080	11,714,580	11,717,020
Latin America and the Caribbean	14,743,240	1,691,510	9,713,040	3,338,690
North America and Western Europe	403,380	9,040	163,270	231,070
South and West Asia	137,136,400	22,610,890	96,507,620	18,017,890
Sub-Saharan Africa	53,409,420	17,796,870	31,128,320	4,484,230
<b>World</b>	<b>246,615,000</b>	<b>46,188,070</b>	<b>159,737,300</b>	<b>40,689,680</b>
<b>2015</b>				
Arab States	13,249,300	1,465,090	9,263,070	2,521,140
Central and Eastern Europe	1,384,850	243,990	771,410	369,450
Central Asia	98,860	47,600	41,920	9,340
East Asia and the Pacific	21,320,920	1,837,320	10,373,780	9,109,820
Latin America and the Caribbean	13,862,280	1,412,680	9,085,860	3,363,740
North America and Western Europe	313,910	6,890	141,590	165,430
South and West Asia	135,172,900	19,022,640	97,186,020	18,964,240
Sub-Saharan Africa	58,838,130	19,614,700	34,501,450	4,721,980
<b>World</b>	<b>244,241,200</b>	<b>43,650,910</b>	<b>161,365,100</b>	<b>39,225,140</b>

**Table 4.3 Projected number of female illiterates by region and age group, for the years 2005, 2010 and 2015**

	<b>Female illiterates</b>			
	<b>15+ years</b>	<b>15-24 years</b>	<b>25-64 years</b>	<b>65+ years</b>
<b>2005</b>				
Arab States	30,390,290	4,610,990	21,297,220	4,482,080
Central and Eastern Europe	6,282,800	534,800	3,448,340	2,299,660
Central Asia	144,220	13,220	36,030	94,970
East Asia and the Pacific	74,716,890	2,528,350	34,870,400	37,318,140
Latin America and the Caribbean	20,091,160	1,524,130	13,495,320	5,071,710
North America and Western Europe	969,710	11,710	215,090	742,910
South and West Asia	241,988,100	39,258,090	171,791,700	30,938,310
Sub-Saharan Africa	69,612,620	17,749,340	44,707,760	7,155,520
<b>World</b>	<b>444,195,800</b>	<b>66,230,630</b>	<b>289,861,900</b>	<b>88,103,300</b>
<b>2010</b>				
Arab States	29,903,640	3,291,600	21,717,500	4,894,540
Central and Eastern Europe	5,665,110	489,000	3,122,660	2,053,450
Central Asia	118,020	15,430	29,770	72,820
East Asia and the Pacific	63,603,020	2,046,740	27,949,820	33,606,460
Latin America and the Caribbean	18,759,220	1,159,010	12,222,010	5,378,200
North America and Western Europe	751,940	7,900	159,070	584,970
South and West Asia	241,132,400	32,548,260	173,827,000	34,757,140
Sub-Saharan Africa	71,309,220	17,514,300	45,874,430	7,920,490
<b>World</b>	<b>431,242,600</b>	<b>57,072,240</b>	<b>284,902,300</b>	<b>89,268,070</b>
<b>2015</b>				
Arab States	28,906,550	2,450,760	21,076,070	5,379,720
Central and Eastern Europe	5,049,340	442,500	2,851,140	1,755,700
Central Asia	97,030	17,090	33,150	46,790
East Asia and the Pacific	52,472,390	1,549,530	22,426,500	28,496,360
Latin America and the Caribbean	17,293,420	928,780	10,870,890	5,493,750
North America and Western Europe	546,260	6,360	127,240	412,660
South and West Asia	235,846,500	24,882,670	172,395,100	38,568,730
Sub-Saharan Africa	72,806,730	17,222,910	46,897,020	8,686,800
<b>World</b>	<b>413,018,200</b>	<b>47,500,600</b>	<b>276,677,100</b>	<b>88,840,510</b>

#### 4.4 Commentary and critique

The projected changes are not very large. Indeed, possibly the most important point highlighted by these projections is that, like the picture of slow and halting progress over the last decade of the 20<sup>th</sup> century painted in Chapter 3, improvements over the next 15 to 20 years will be equally modest. In particular, reliance on expanding the coverage of schooling for children to affect the literacy rate is taking a long-term perspective.

Any projection methodology that is based on the presumption that trends will follow an algebraic curve is open to discussion, and the presumption here that any particular country's literacy/illiteracy rate for a given year in the future should be assumed to follow the extrapolation of logits is equally questionable. But perhaps more important is a discussion of what factors affect the transition to literacy, in addition to the known strong inverse relationship between the level of literacy and the size of the change.

To explore this further, the literacy rates for the 1990s and 2000s have been correlated with a selection of indicators from the World Development Indicators (WDI) database. These correlations are a measure of the level of association between two indicators. The results in Table 4.4a show that all the WDI indicators extracted (GDP, growth rate in GDP, primary school enrolment, child mortality rate, and number of fixed and mobile telephone lines) are correlated in the expected directions with literacy rates and absolute number of illiterates. The fact that several different types of indicators are associated with literacy rates and changes in literacy rates, however, means that it is difficult to interpret any one of these correlations as directly showing the effect of the corresponding indicator on literacy rates because the different WDI indicators may themselves be associated with each other.

In order to indicate which might be the most important among these variables, therefore, a statistical procedure known as multiple regression has been used. This procedure allows one to identify the weight of one indicator, after allowing for the associations of that indicator with other indicators. Regressions using the absolute change in literacy rate and the percent change in the literacy rate as the dependent variables and the WDI indicators as the independent variables have been carried out, using both data weighted by population and unweighted data but including a variable for the population.

The coefficients in Table 4.4b show the effect of the different indicators after adjusting for the other indicators, and the standardized coefficients show the effects in a form that can be compared with each other. It should be noted that if the 1990 level of literacy is included in any of the equations, it is by far the most powerful variable with the expected negative coefficient and none of the WDI indicators are significant. Given this important caveat and that there are only complete data for about 50 countries, the results can only be indicative. However, it is interesting that the major variables are the population growth rate and the change in the number of telephone lines.

**Table 4.4a Correlation between the change and percentage change in the total literacy rate and the World Development Indicators (WDI)**

<b>LTRTOTCG</b>		<b>cggdpcrt</b>	<b>Pcgdpct</b>	<b>cggdpgwt</b>	<b>pcgdpgwt</b>
<b>Corr.</b>		0.08	-0.007	0.04	-0.071
<b>Sig.</b>		0.536	0.954	0.775	0.615
<b>N</b>		65	65	53	53
		<b>cgprment</b>	<b>pcprment</b>	<b>cgtlphns</b>	<b>pctlphns</b>
<b>Corr.</b>		0.035	0.078	-0.335	0.38
<b>Sig.</b>		0.808	0.584	0.012	0.004
<b>N</b>		52	52	56	56
<b>PCLTRTOT</b>		<b>cggdpcrt</b>	<b>Pcgdpct</b>	<b>cggdpgwt</b>	<b>pcgdpgwt</b>
<b>Corr.</b>		-0.056	0.214	-0.206	-0.138
<b>Sig.</b>		0.66	0.087	0.139	0.323
<b>N</b>		65	65	53	53
		<b>cgprment</b>	<b>pcprment</b>	<b>cgtlphns</b>	<b>pctlphns</b>
<b>Corr.</b>		0.162	0.249	-0.472	0.413
<b>Sig.</b>		0.251	0.075	0	0.002
<b>N</b>		52	52	56	56

**Notes:** LTRTOTCG = Change in literacy rate (all adults 15+) between '1990' (nearest year) and '2000' (nearest year)  
PCLTRTOT = Percentage change in literacy rate (all adults 15+) between '1990' (nearest year) and '2000' (nearest year)  
CGGDPCRT = Change in GDP per capita (current US\$) between 2000 and 2005  
PCGDPCRT = Percentage change in GDP per capita between 2000 and 2005  
CGGDPGWT = Change in growth rate (annual %) of GDP per capita between 2000 and 2005  
PCGDPGWT = Percentage change in growth rate of GDP per capita between 2000 and 2005  
CGPRMENT = Change in gross enrolment ratio in primary schooling between 2000 and 2005  
PCPRMENT = Percentage change in gross enrolment ratio in primary schooling between 2000 and 2005  
CGTLPHNS = Change in number of fixed and mobile phone subscribers per 1,000 population between 2000 and 2005  
PCTLPHNS = Percentage change in numbers of fixed and mobile phone subscribers per 1,000 between 2000 and 2005

**Table 4.4b Regression of percentage change in the total literacy rate with percentage change in telephones and population growth rate**

	<b>Unstandardized coefficients</b>		<b>Standardized coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. error</b>	<b>Beta</b>	<b>B</b>	<b>Std. error</b>
<b>(Constant)</b>	4.033	2.655		1.519	0.135
<b>PCTLPHNS</b>	0.021	0.007	0.364	3.053	0.004
<b>POPGWT01</b>	3.057	1.159	0.314	2.638	0.011
<b>Dependent Variable: PCLTRTOT</b>					

**Notes:** PCTLPHNS = Percentage change in numbers of fixed and mobile phone subscribers per 1,000 between 2000 and 2005  
POPGWT01 = Rate of growth of population in 2001  
PCLTRTOT = Percentage change in literacy rate (all adults 15+) between '1990' (nearest year) and '2000' (nearest year)

## Chapter 5: Conclusions

Illiteracy has been an important policy imperative since the beginning of UNESCO. There have been several false starts, and while the literacy rates are improving, the size of the illiterate population has hardly decreased. But even statements such as this are questionable even after 60 years.

### 5.1 Measurement methodologies

There are three main forms of measurement: self-reports by individuals in censuses; reports through household surveys of the respondent's own literacy status and those of other household members; and assessments. They measure different things. Reports – whether by individuals or others – tend to give higher ratings than when literacy is measured by direct assessment. This bias is often mistakenly called over-statement; the respondents may be quite correct in terms of how useful literacy is to them. But, given that the size of the bias varies from context to context – and is sometimes very large – it makes the comparison between groups less than straightforward.

Despite these criticisms of literacy assessments and household surveys, they continue to be used, developed and are the sources for some of the data for monitoring and research. Indeed, they are being extended towards measuring other skills beyond literacy (e.g. PIAAC). In these latter contexts, there is more justification for the survey-based assessments as the intention of these surveys is oriented towards specific sub-populations (for example, the employed or the potentially employable). Equally, where the focus is on research into factors associated with different forms of literacy, survey data are invaluable for testing hypotheses. But where the concern is to monitor *population* levels of literacy, careful attention has to be paid to the extent to which these surveys cover especially the more disadvantaged sections of the population (as these are the most likely to be non-literate), and the evidence presented above suggests that survey sources – however well designed - are often inadequate and a poor substitute for well-conducted censuses.

### 5.2 Patterns of literacy rates and illiteracy

The patterns of illiteracy and projections presented in Chapter 3 show that, while there has been a quite substantial decrease in the self-reported rate of illiteracy, the overall number and patterns of sex, age-cohort and regional differences have not changed much over the last 50 years. The detailed analysis of the age and sex patterns shows that: youth literacy rates are increasing but slower than the overall 15 years and over age group average; and the spread of formal schooling does appear to have helped diminish the male/female gap but not the gap between geographical regions. In turn, the detailed analysis of these regional patterns shows that: whilst there have been substantial gains in East Asia and especially China, the Arab States, Bangladesh and Sub-Saharan Africa are lagging behind. Also, literacy rates for women are increasing faster than those for men, but the percentage reduction in illiterates is larger for men.

The overall conclusion of the empirical analysis, therefore, is that policies and programmes over the last half century have not reduced inequalities.



### 5.3 Remaining and new problems

The approach of the new literacies is based on a belief that literacy only has meaning within its particular context of social practice and does not transfer easily across contexts. There are different literacy practices in different domains of social life, such as education, religion, workplaces, public services, families and community activities. They change over time, and these different literacies are supported and shaped by different institutions and social relationships. The argument that any research that purports to increase our understanding of literacy in society must take account of these meanings, values and uses is well taken – and, indeed, they are the source of the ideas which statisticians use to interpret their findings. Nevertheless, they need to show how these insights can be incorporated into findings, measurements and comparisons that can be useful for policy.

For all of the countries where census or household survey data are used (nearly all), the estimates of literacy are likely to be over-estimates relative to what would have been the results of a test. For some countries, there is also the problem of proxy responses by the household head, which may well further inflate the estimates. Clearly more accurate measurement would be better.

There has been an increasing sophistication in the measurement of different dimensions of 'literacy', and the LAMP programme is a major part of this effort. In particular, the psychometric techniques employed in selecting the test items will allow for the possibility of cross-national comparison, although on a limited range of items. But, even for those directly involved, the potential for making direct assessments on literacy skills is limited. Simple skills (such as the ability to read aloud a simple sentence or the ability to perform simple problems in addition, subtraction, multiplication and division) can be tested reasonably accurately and with relative ease. The testing of higher-level skills (such as reading comprehension and the highly diverse range of mathematics skills beyond simple arithmetic) appears to be fraught with many more difficulties and disagreements. At least for the present, and despite the accolade given to IALS, such assessments will only really be useful within countries rather than for comparisons across countries. Moreover, in terms of monitoring literacy skills worldwide, there have only been such direct assessments in a small number of countries.

Furthermore, there are difficulties in conducting (household survey) direct assessments (even in the reduced forms discussed in Chapter 2) that will generate good estimates in the poor countries where it matters. The major reason, at least in developing countries, is that it is difficult to monitor the marginalized and poor.

## **5.4 Projections**

Possibly the most important point highlighted by these projections is that, like the picture of slow and halting progress over the last decade of the 20<sup>th</sup> century painted in Chapter 3, improvements over the next 15 to 20 years will be equally slow. In particular, reliance on schooling of children to affect the literacy rate is a long-term prospect. It is difficult to make substantial improvements in the literacy rate or substantial reductions in the numbers of people illiterate without much larger investments than heretofore. Currently, this seems unlikely; there has to be a much larger – and meaningful – political commitment to eradicating illiteracy.

## **5.5 Measurement policy and political imperatives**

The political imperative is to reach or to be seen to be reaching the MDGs. But this review of progress and the projections show that – even if one ignores the problems of measurement discussed in this report – it is not going to happen. Perhaps the emphasis on improving methodologies has been a distraction from the main issue. While the recent developments in methodology (IALS, ALLS, LAMP, PIAAC, etc.) have clearly extended the possibilities for measuring different kinds of literacies among different sub-groups, there has been a neglect of the problem of measuring basic literacy among the whole population. It is perhaps time to revisit the basics: how can the quality of the statistics available on the illiterate and the poor be improved?

## References

- Abadzi, H. (2003b). *Improving Adult Literacy Outcomes: Lessons from Cognitive Research for Developing Countries*. Directions in Development Series. Washington, D.C.: World Bank.
- Barton, D. (1994). *Literacy: An Introduction to the Ecology of Written Language*. Oxford: Blackwell.
- Barton, D. and M. Hamilton (1998). *Local Literacies: Reading and Writing in One Community*. London: Routledge.
- Bennell, P. and D. Furlong (1998). "Has Jomtien made any difference? Trends in donor funding for education and basic education since the late 1980s" in *World Development*, Vol. 26, Issue 1, pp. 45-59.
- Bhola, H.S. (1994). "Women's Literacy: A Curriculum of Assertion, Resistance, and Accommodation?" in *Convergence* 27, Nos. 2-3, pp. 41-50.
- Blum A., H. Goldstein and F. Guerin-Pace (2001). "International Adult Literacy Survey (IALS): An analysis of international comparisons of adult literacy", in *Assessment in Education: Principles, Policy and Practice*, Vol. 8, No. 2. Basingstoke: Carfax Publishing.
- Burchfield, S., H. Hua, T.S. Iturry and V. Rocha (2002b). *A Longitudinal Study of the Effect of Integrated Literacy and Basic Education Programs on the Participation of Women in Social and Economic Development in Bolivia*. Boston, Mass.: World Education; Washington, D.C.: United States Agency for International Development Office of Women in Development.
- Carr-Hill, R.A. (1990). *Social Conditions in Sub-Saharan Africa*. London and New York: Macmillan and Houndsmill.
- Carr-Hill, R.A. (ed.) (2001). *Adult Literacy Programs in Uganda: An Evaluation*. Washington, D.C.: World Bank.
- Carr-Hill R.A. (2008). "Unexpected Relationships between Literacy and Wealth in MICS surveys". Unpublished paper.
- Carron, G., K. Mwiria and G. Righa (1989). *The Functioning and Effects of the Kenya Literacy Programme*. IIEP Research Report No. 76. Paris: UNESCO-IIEP.
- Coale, Ansley J. and P. Demeny (1966). *Regional Model Life Tables and Stable Populations*. New York: Academic Press.
- Cope, B. and M. Kalantzis (2000). *Multiliteracies: Literacy Learning and the Design of Social Futures*. London: Routledge.
- Cusso, Roser and Sabrina D'Amico (2005). "From development comparatism to globalization comparativism: Towards more normative international education statistics" in *Comparative Educational*, Vol. 41, No. 2.
- DESA UNSD (2005). "Special Report of the World's Women 2005: Progress in Statistics". New York: UNSD.
- Dewey, J. (1916). *Democracy and Education. An introduction to the philosophy of education* (1966 edition). New York: Free Press.

- Fairclough, N. (1991). "Discourse and text: linguistics – An intertextual analysis within discourse analysis". *Critical Discourse Analysis: the Critical Study of Language*. London: Longman, pp. 187-213.
- Freire, P. (1970). *Pedagogy of the Oppressed*. New York: Continuum.
- Galitzine, Christine (2006). "Sustainable Development in the UN System: Draft for Comment". Paris: UNESCO.
- Gee, J. (1990). *Social Linguistics and Literacies: Ideology in Discourse*. London and Philadelphia: Falmer Press.
- Greaney, V., S.R. Khandker and M. Alam (1998). *Bangladesh: Assessing Basic Learning Skills*. Washington, D.C. and Dhaka: World Bank.
- Hannum, E. and C. Buchman (2003). *The Consequences of Global Educational Expansion*. Cambridge, Mass.: American Academy of Arts and Sciences.
- Hunter S. and D. Fall (1998). *Report of an Assessment of UNICEF Programming in Zambia for Children and Children Affected by HIV/AIDS*. New York: UNICEF.
- Inter-Agency Commission (UNDP, UNESCO, UNICEF, World Bank) for the World Conference on Education for All (1990). *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*. New York: UNICEF.
- Jones, Philip (1999). "Globalisation and the UNESCO mandate: Multilateral prospects for educational development" in *International Journal of Educational Development*, Vol. 19, Issue 1, pp. 17-25.
- Keyfitz, Nathan (1985): *Applied Mathematical Demography*. 2nd edition. New York: Stringer Verlag.
- Kress, G. and T. van Leeuwen (2001). *Multimodal Discourse*. London: Arnold.
- Lankshear, C. and M. Knobel (2003). *New Literacies: Changing Knowledge and Classroom Learning*. Buckingham: Open University Press.
- Limage, Leslie (1999). "Literacy practices and literacy policies: Where has UNESCO been and where might it be going?" in *International Journal of Educational Development*, Vol. 19, Issue 1, pp. 75-89.
- Limage, Leslie (2005). "The growth of literacy in historic perspective: Clarifying the role of formal schooling and adult learning opportunities". Background paper for *EFA Global Monitoring Report 2006*. Paris: UNESCO.
- Lutz, Wolfgang and Anne Goujon (2001). "The World's Changing Human Capital Stock: Multistate Population Projections by Educational Attainment". *Population and Development Review*, 27 (2):323-339 (June 2001).
- Mundy, Karen (1999). "Educational multilateralism in a changing world order: UNESCO and the limits of the possible" in *International Journal of Educational Development*, Vol. 19, Issue 1, pp. 27-52.
- Murray, C.J.L. (1987). "A Critical Review of International Mortality Data" in *Social Science and Medicine*. Vol. 25, No. 7, pp. 773-81.

Murray, T. Scott, Y. Clermont and M. Binkley (2005). *International Adult Literacy Survey Measuring Adult Literacy and Life Skills: New Frameworks for Assessment*. Ottawa: Statistics Canada.

Naudé, W. A. (2004). "The effects of policy, institutions and geography on economic growth in Africa: An econometric study based on cross-section and panel data". *Journal of International Development*. Vol. 16, pp. 821-49.

OECD (1997). *Literacy, Economy and Society*. Paris: OECD.

OECD (1999). *International Adult Literacy Survey, 1994-98*. Paris: OECD.

OECD and Statistics Canada (2000). *Literacy in the information age: Final report of the international adult literacy survey*. Paris: OECD; Ottawa: Statistics Canada.

Oxenham, J. (2003). *Review of World Bank Supported Projects in Adult Basic Education and Literacy, 1977-2002: Comparison of Costs*. Washington, D.C.: World Bank.

Patel, Ila (2005). "The human benefits of adult literacy". Background paper for *EFA Global Monitoring Report 2006*. Paris: UNESCO.

Payne, Geoff (2006). "Re-counting 'illiteracy': Literacy skills in the sociology of social inequality" in *The British Journal of Sociology*, Vol. 57, Issue 2.

Piaget, J. (1961). *La psychologie de l'intelligence*. Paris: Armand Colin.

Rauner, Mary (1999). "UNESCO as an organization carrier for civics education information" in *International Journal of Educational Development*, Vol. 19, Issue 1, pp. 91-100.

Robinson-Pant, A. (2005). "The social benefits of literacy". Background paper for *EFA Global Monitoring Report 2006*, through the University of East Anglia, Norwich.

Schaffner J. (2005). "Measuring Literacy in Developing Country Household Surveys: Issues and Evidence". Background paper for *EFA Global Monitoring Report 2006*. Paris: UNESCO.

Smyth, John A. (2006). "UNESCO's International Literacy Statistics, 1950-2000". Background paper for *EFA Global Monitoring Report 2006*. Paris: UNESCO.

Spaulding, Seth and Ranjan Chaudhuri (1999). "UNESCO's World Education Report: Its evolution, strengths and possible futures" in *International Journal of Educational Development*, Vol. 19, Issue 1, pp. 53-63.

Street, B. (1996). "Literacy, Economy, and Society" in *Literacy Across the Curriculum*. Vol. 12, pp. 8-15.

Street, B. (2003). "What's 'new' in New Literacy Studies? Critical approaches to literacy theory and practice" in *Current Issues in Comparative Education*. Vol. 5, No. 2, 12 May. <http://www.tc.columbia.edu/cice>

Stromquist, N. (2005). "The political benefits of adult literacy". Background paper for *EFA Global Monitoring Report 2006*.

Townsend P., D. Gordon, E. Lloyd, M. Senior, J. Rigby, M. Shaw and Y. Ben Shlomo (2002). *Targeting Poor Health: Wales NHS Resource Allocation Review*.

UNDP (2001). *Human Development Report*. New York: UNDP.

UNESCO (1953). *Progress of Literacy in Various Countries*. Paris: UNESCO.

UNESCO (1957). *World Illiteracy at Mid-Century*. Paris: UNESCO.

UNESCO (1958). *Recommendation concerning the International Standardization of Educational Statistics*. Paris: UNESCO.

UNESCO (1961). *Manual of Educational Statistics*. Paris: UNESCO.

UNESCO (1965). *World Congress of Ministers of Education on the Eradication of Illiteracy (Teheran, Iran), Final Report*. Paris: UNESCO.

UNESCO (1965-1997). *UNESCO Statistical Yearbook*. Paris: UNESCO.

UNESCO (1968). *Literacy*. Paris: UNESCO.

UNESCO (1970). *Literacy 1967-1969: Progress Achieved in Literacy Throughout the World*. Paris: UNESCO.

UNESCO (1972). *Literacy 1969-1971: Progress Achieved in Literacy Throughout the World*. Paris: UNESCO.

UNESCO (1975). *Revised Recommendation concern the International Standardization of Educational Statistics*. Paris: UNESCO.

UNESCO (1975). *Experimental World Literacy Programme*. Paris: UNESCO.

UNESCO (1977a). *Statistics of Educational Attainment and Illiteracy 1945-1974*. Statistical Reports and Studies, No. 22. Paris: UNESCO.

UNESCO (1977b). *Trends and Projections of Enrolment by Level of Education and by Age*. Current Surveys and Research in Statistics, No. 21. Paris: UNESCO.

UNESCO (1978a). *Estimates and Projections of Illiteracy*. Current Surveys and Research in Statistics, No. 29. Paris: UNESCO.

UNESCO (1978b). *Towards a Methodology for Projecting Rates of Literacy and Educational Attainment*. Current Surveys and Research in Statistics, No. 28. Paris: UNESCO.

UNESCO (1980). *Literacy 1972-1976: Progress Achieved in Literacy Throughout the World*. Paris: UNESCO.

UNESCO (1983a). *Development of Education in the Least Developed Countries since 1970: A Statistical Study*. Current Surveys and Research in Statistics, No. 42. Paris: UNESCO.

UNESCO (1983b). *Statistics of Educational Attainment and Illiteracy 1970-1980*. Current Surveys and Research in Statistics, No. 44. Paris: UNESCO.

UNESCO (1985). *The current literacy situation in the world*. Paris: UNESCO.

UNESCO (1988). *Compendium of Statistics on Illiteracy*. Statistical Reports and Studies, No. 22. Paris: UNESCO.

UNESCO (1989). "Plan of Action to Eradicate Illiteracy by the Year 2000". General Conference Document No. 25 C/71. Paris: UNESCO.

UNESCO (1990). *Compendium of Statistics on Illiteracy – 1990 Edition*. Statistical Reports and Studies, No. 31. Paris: UNESCO.

UNESCO (1992). *Literacy Assessment and its Implications for Statistical Measurement*. Paris: UNESCO.

UNESCO (1993). *Development Strategies for Literacy Statistics*. Paris: UNESCO.

UNESCO (1995a). *Compendium of Statistics on Illiteracy – 1995 Edition*. Statistical Reports and Studies, No. 35. Paris: UNESCO.

UNESCO (1995b). *Methodology used in the 1994 Estimation and Projection of Adult Illiteracy*. Statistical Issues, No. 18. Paris: UNESCO.

UNESCO (2000a). *World Education Forum, Dakar, Senegal, 26-28 April, 2000, Final Report*. Paris: UNESCO.

UNESCO (2003). *Literacy as Freedom*. Paris: UNESCO.

UNESCO (2005). "Links between the Global Initiatives in Education". Education for Sustainable Development in Action, Technical Paper No.1. Paris: UNESCO.

UNESCO Institute for Statistics (2006, re-edition). *International Standard Classification of Education (ISCED 1997)*. Montreal: UNESCO Institute for Statistics.

## Appendix I: Statistical tables

**Table I.1 Adult (15 years and older) literacy rate and number of illiterates by sex and region, 1990**

Region	1990							
	Adult (15+) literacy rate				Adult (15+) number of illiterates			
	Total	Male	Female	GPI	Total	Male	Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>76.4</b>	<b>82.6</b>	<b>70.1</b>	<b>0.85</b>	<b>864,193,000</b>	<b>316,975,000</b>	<b>547,218,000</b>	<b>63.3</b>
Africa	53.1	63.3	43.5	0.69	172,418,000	66,680,000	105,738,000	61.3
Americas	92.7	93.3	92.1	0.99	38,425,700	17,130,800	21,294,900	55.4
North America	95.2	95.9	94.6	0.99	15,298,600	6,422,660	8,875,920	58.0
South America	88.7	89.4	88.2	0.99	23,127,100	10,708,200	12,419,000	53.7
Asia	70.3	79.1	61.1	0.77	642,701,000	230,139,000	412,562,000	64.2
Europe	98.4	99.1	97.8	0.99	9,341,380	2,450,150	6,891,230	73.8
Oceania	93.5	94.3	92.9	0.99	1,306,880	574,746	732,138	56.0
<b>EFA REGIONS</b>								
<b>World</b>	<b>76.3</b>	<b>82.6</b>	<b>70.1</b>	<b>0.85</b>	<b>863,980,000</b>	<b>316,907,000</b>	<b>547,074,000</b>	<b>63.3</b>
Developed countries	98.8	99.1	98.5	0.99	9,300,480	3,270,110	6,030,370	64.8
Countries in transition	98.4	99.5	97.4	0.98	3,399,210	503,169	2,896,040	85.2
Developing countries	68.2	76.9	59.3	0.77	851,280,000	313,133,000	538,147,000	63.2
Arab States	58.2	69.8	46.1	0.66	55,143,500	20,431,600	34,711,900	63.0
Central and Eastern Europe	95.9	98.0	94.0	0.96	12,538,500	2,803,920	9,734,590	77.6
Central Asia	98.6	99.3	98.0	0.99	629,008	145,950	483,058	76.8
East Asia and the Pacific	82.4	89.4	75.3	0.84	227,588,000	69,673,700	157,915,000	69.4
East Asia	82.2	89.3	75.0	0.84	226,282,000	69,098,900	157,183,000	69.5
The Pacific	93.5	94.3	92.9	0.99	1,306,880	574,746	732,138	56.0
Latin America and the Caribbean	87.6	88.7	86.6	0.98	36,580,200	16,332,800	20,247,400	55.4
Caribbean	70.7	70.7	70.8	1.00	2,354,290	1,137,270	1,217,020	51.7
Latin America	88.1	89.2	87.0	0.98	34,225,900	15,195,600	19,030,400	55.6
North America and Western Europe	98.8	99.1	98.6	0.99	6,417,550	2,360,870	4,056,680	63.2
South and West Asia	47.6	60.2	34.0	0.57	394,125,000	153,954,000	240,172,000	60.9
Sub-Saharan Africa	53.8	63.3	44.9	0.71	130,958,000	51,204,000	79,753,500	60.9



<b>E9 COUNTRIES</b>	66.3	76.1	56.2	0.74	630,362,000	228,542,000	401,821,000	63.7
<b>MDG REGIONS</b>								
<b>World</b>	<b>76.4</b>	<b>82.6</b>	<b>70.1</b>	<b>0.85</b>	<b>864,193,000</b>	<b>316,975,000</b>	<b>547,218,000</b>	<b>63.3</b>
Developed countries	98.8	99.1	98.5	0.99	9,300,480	3,270,110	6,030,370	64.8
Developing countries	68.2	77.0	59.3	0.77	851,494,000	313,202,000	538,292,000	63.2
Northern Africa	48.5	61.3	35.6	0.58	34,971,400	13,061,600	21,909,800	62.7
Sub-Saharan Africa	54.2	63.7	45.3	0.71	137,447,000	53,618,300	83,828,300	61.0
Latin America and the Caribbean	87.6	88.7	86.6	0.98	36,580,200	16,332,800	20,247,400	55.4
Eastern Asia	79.1	87.8	70.0	0.80	186,096,000	55,909,100	130,187,000	70.0
South Asia	47.6	60.2	34.0	0.57	394,125,000	153,954,000	240,172,000	60.9
South-Eastern Asia	86.2	91.0	81.7	0.90	39,547,700	12,892,900	26,654,800	67.4
Western Asia	75.7	85.1	65.5	0.77	21,452,300	6,872,320	14,579,900	68.0
Oceania	65.1	70.2	59.8	0.85	1,274,260	560,874	713,387	56.0
Eurasia CIS	98.4	99.5	97.4	0.98	3,399,210	503,169	2,896,040	85.2
Asia CIS	98.6	99.4	98.0	0.99	597,171	131,929	465,242	77.9
Europe CIS	98.3	99.5	97.3	0.98	2,802,040	371,240	2,430,800	86.8
Landlocked Developing Countries	55.7	63.0	49.0	0.78	69,143,200	28,317,200	40,826,000	59.1
Least Developed Countries	47.4	57.5	37.8	0.66	162,560,000	65,177,900	97,382,200	59.9
Small Island Developing States	81.2	83.2	79.3	0.95	5,681,180	2,544,270	3,136,910	55.2
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	51.5	62.8	39.8	0.63	527,075,000	204,883,000	322,191,000	61.1
Middle-income countries	82.3	88.3	76.4	0.87	325,293,000	107,452,000	217,841,000	67.0
Lower-middle income (\$826-\$3,255)	79.8	86.8	72.7	0.84	296,125,000	97,651,300	198,473,000	67.0
Upper-middle income (\$3,256-\$10,065)	92.3	94.6	90.2	0.95	29,168,100	9,800,350	19,367,800	66.4
Low- and middle-income countries	70.9	78.8	63.0	0.80	852,367,000	312,335,000	540,032,000	63.4
East Asia and the Pacific	80.1	88.1	71.9	0.82	226,129,000	69,156,700	156,972,000	69.4
Europe and Central Asia	96.2	98.2	94.4	0.96	13,128,400	2,932,920	10,195,500	77.7
Latin America and the Caribbean	87.6	88.7	86.5	0.98	36,565,500	16,325,100	20,240,500	55.4
Middle East and North Africa	58.2	69.5	46.6	0.67	56,196,700	20,614,100	35,582,600	63.3
South Asia	46.8	59.6	33.0	0.55	383,001,000	149,721,000	233,279,000	60.9
Sub-Saharan Africa	54.2	63.7	45.3	0.71	137,348,000	53,584,800	83,762,700	61.0
High-income countries (\$10,066+)	98.4	98.7	98.1	0.99	11,826,000	4,640,020	7,186,010	60.8
High-income OECD	98.9	99.2	98.7	1.00	7,462,170	2,774,860	4,687,310	62.8
Other high income	83.9	87.6	79.2	0.90	4,363,860	1,865,160	2,498,700	57.3

Table I.2 Adult (15 years and older) literacy rate and number of illiterates by sex and region, 2000

Region	2000							
	Adult (15+) literacy rate				Adult (15+) number of illiterates			
	Total	Male	Female	GPI	Total	Male	Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>82.4</b>	<b>87.4</b>	<b>77.4</b>	<b>0.89</b>	<b>774,218,139</b>	<b>276,452,136</b>	<b>497,766,003</b>	<b>64.3</b>
Africa	61.1	71.0	51.7	0.73	191,966,912	70,992,125	120,974,787	63.0
Americas	93.7	94.2	93.2	0.99	40,295,175	18,102,468	22,192,706	55.1
North America	95.7	96.2	95.2	0.99	16,459,138	7,089,238	9,369,901	56.9
South America	90.8	91.3	90.3	0.99	23,836,036	11,013,231	12,822,806	53.8
Asia	79.7	86.2	73.1	0.85	534,331,240	184,682,799	349,648,442	65.4
Europe	99.0	99.3	98.7	0.99	6,095,551	2,007,138	4,088,413	67.1
Oceania	93.5	94.3	92.8	0.98	1,529,261	667,606	861,655	56.3
<b>EFA REGIONS</b>								
<b>World</b>	<b>82.4</b>	<b>87.4</b>	<b>77.4</b>	<b>0.89</b>	<b>773,953,885</b>	<b>276,374,118</b>	<b>497,579,767</b>	<b>64.3</b>
Developed countries	99.0	99.2	98.8	1.00	8,192,106	3,102,294	5,089,812	62.1
Countries in transition	99.4	99.7	99.2	0.99	1,313,365	317,755	995,610	75.8
Developing countries	77.1	83.8	70.4	0.84	764,448,413	272,954,069	491,494,344	64.3
Arab States	70.5	80.7	59.7	0.74	56,898,520	18,955,634	37,942,886	66.7
Central and Eastern Europe	97.2	98.7	95.9	0.97	8,923,390	1,911,102	7,012,288	78.6
Central Asia	99.2	99.6	99.0	0.99	378,983	104,270	274,712	72.5
East Asia and the Pacific	91.7	95.1	88.2	0.93	125,631,362	37,127,470	88,503,892	70.5
East Asia	91.7	95.2	88.2	0.93	124,040,889	36,439,222	87,601,666	70.6
The Pacific	93.4	94.2	92.6	0.98	1,590,473	688,248	902,225	56.7
Latin America and the Caribbean	89.9	90.7	89.2	0.98	38,195,092	17,191,555	21,003,537	55.0
Caribbean	70.6	70.6	70.7	1.00	2,888,514	1,400,718	1,487,796	51.5
Latin America	90.4	91.2	89.7	0.98	35,306,578	15,790,837	19,515,741	55.3
North America and Western Europe	99.0	99.2	98.8	1.00	5,814,337	2,254,735	3,559,602	61.2
South and West Asia	59.7	71.3	47.5	0.67	387,818,306	141,673,932	246,144,374	63.5
Sub-Saharan Africa	59.2	68.7	50.4	0.73	150,293,894	57,155,419	93,138,475	62.0
<b>E9 COUNTRIES</b>	<b>77.5</b>	<b>84.5</b>	<b>70.3</b>	<b>0.83</b>	<b>520,033,834</b>	<b>181,738,273</b>	<b>338,295,562</b>	<b>65.1</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>82.4</b>	<b>87.4</b>	<b>77.4</b>	<b>0.89</b>	<b>774,218,139</b>	<b>276,452,136</b>	<b>497,766,003</b>	<b>64.3</b>
Developed countries	99.0	99.2	98.8	1.00	8,192,106	3,102,294	5,089,812	62.1
Developing countries	77.2	83.9	70.4	0.84	764,712,668	273,032,087	491,680,581	64.3
Northern Africa	67.9	79.2	56.4	0.71	33,250,750	10,675,001	22,575,749	67.9
Sub-Saharan Africa	59.3	68.8	50.4	0.73	158,716,162	60,317,124	98,399,037	62.0
Latin America and the Caribbean	89.9	90.7	89.2	0.98	38,195,092	17,191,555	21,003,537	55.0
Eastern Asia	91.4	95.4	87.3	0.92	87,855,443	24,057,280	63,798,163	72.6
South Asia	59.7	71.3	47.5	0.67	387,818,306	141,673,932	246,144,374	63.5
South-Eastern Asia	90.3	93.4	87.4	0.94	35,617,240	12,098,633	23,518,606	66.0
Western Asia	82.4	90.1	74.2	0.82	21,767,596	6,366,714	15,400,882	70.8
Oceania	64.6	69.9	59.1	0.85	1,492,079	651,848	840,231	56.3
Eurasia CIS	99.4	99.7	99.2	0.99	1,313,365	317,755	995,610	75.8
Asia CIS	99.3	99.6	99.0	0.99	342,878	88,337	254,541	74.2
Europe CIS	99.4	99.7	99.2	1.00	970,487	229,418	741,069	76.4
Landlocked Developing Countries	60.8	69.1	53.2	0.77	78,262,097	30,390,926	47,871,171	61.2
Least Developed Countries	53.4	63.2	44.0	0.70	187,683,927	73,588,129	114,095,798	60.8
Small Island Developing States	82.5	84.0	81.0	0.96	6,359,985	2,899,522	3,460,463	54.4
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	60.8	71.5	49.9	0.70	545,454,904	200,845,523	344,609,381	63.2
Middle-income countries	90.1	93.5	86.8	0.93	217,833,154	71,240,732	146,592,422	67.3
Lower-middle income (\$826-\$3,255)	89.1	92.9	85.2	0.92	192,408,317	62,372,270	130,036,047	67.6
Upper-middle income (\$3,256-\$10,065)	94.3	95.8	92.9	0.97	25,424,837	8,868,462	16,556,375	65.1
Low- and middle-income countries	78.8	84.9	72.7	0.86	763,288,058	272,086,256	491,201,803	64.4
East Asia and the Pacific	90.8	94.6	86.8	0.92	124,081,580	36,578,812	87,502,768	70.5
Europe and Central Asia	97.5	98.9	96.3	0.97	9,260,693	1,997,011	7,263,682	78.4
Latin America and the Caribbean	89.9	90.7	89.2	0.98	38,178,342	17,182,783	20,995,559	55.0
Middle East and North Africa	73.0	82.6	63.1	0.76	54,059,650	17,381,851	36,677,800	67.9
South Asia	58.4	70.4	45.8	0.65	379,125,189	138,674,021	240,451,168	63.4
Sub-Saharan Africa	59.3	68.8	50.4	0.73	158,582,604	60,271,778	98,310,827	62.0
High-income countries (\$10,066+)	98.6	98.9	98.4	1.00	10,930,081	4,365,880	6,564,201	60.1
High-income OECD	99.1	99.3	98.9	1.00	6,930,970	2,692,515	4,238,455	61.2
Other high income	89.8	92.1	86.8	0.94	3,999,111	1,673,365	2,325,745	58.2

Table I.3 Change in adult (15 years and older) literacy rate by sex and region, 1990-2000

Region	Change in adult (15+) literacy rate, 1990-2000							
	+/-	% +/-	+/-	% +/-	+/-	% +/-	+/-	% +/-
	Total	Total	Male	Male	Female	Female	GPI	GPI
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>6.0</b>	<b>7.9</b>	<b>4.8</b>	<b>5.8</b>	<b>7.3</b>	<b>10.4</b>	<b>0.04</b>	<b>4.86</b>
Africa	8.0	15.0	7.7	12.2	8.2	18.8	0.04	6.13
Americas	1.0	1.1	0.9	0.9	1.1	1.2	0.00	0.32
North America	0.5	0.5	0.3	0.3	0.6	0.6	0.00	0.33
South America	2.1	2.3	1.9	2.2	2.2	2.4	0.00	0.38
Asia	9.4	13.4	7.1	9.0	12.0	19.7	0.08	10.12
Europe	0.6	0.6	0.2	0.2	1.0	1.0	0.00	0.39
Oceania	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.01	-0.52
<b>EFA REGIONS</b>								
<b>World</b>	<b>6.1</b>	<b>7.9</b>	<b>4.8</b>	<b>5.8</b>	<b>7.3</b>	<b>10.4</b>	<b>0.04</b>	<b>4.89</b>
Developed countries	0.2	0.2	0.1	0.1	0.3	0.3	0.01	0.65
Countries in transition	1.0	1.0	0.2	0.2	1.8	1.8	0.01	1.08
Developing countries	8.9	13.1	6.9	9.0	11.1	18.8	0.07	9.01
Arab States	12.3	21.0	10.9	15.6	13.6	29.5	0.08	12.09
Central and Eastern Europe	1.3	1.4	0.7	0.7	2.0	2.1	0.01	1.21
Central Asia	0.6	0.6	0.3	0.3	1.1	1.1	0.00	0.41
East Asia and the Pacific	9.3	11.3	5.7	6.4	12.9	17.1	0.09	10.39
East Asia	9.5	11.5	5.9	6.6	13.2	17.6	0.09	10.72
The Pacific	-0.1	-0.2	-0.1	-0.1	-0.3	-0.3	-0.01	-0.52
Latin America and the Caribbean	2.3	2.6	2.0	2.3	2.7	3.1	0.00	0.43
Caribbean	-0.1	-0.2	-0.1	-0.1	-0.1	-0.2	0.00	-0.16
Latin America	2.3	2.7	2.0	2.3	2.7	3.1	0.00	0.47
North America and Western Europe	0.2	0.2	0.1	0.1	0.2	0.2	0.01	0.55
South and West Asia	12.1	25.4	11.1	18.4	13.5	39.6	0.10	18.58
Sub-Saharan Africa	5.4	10.1	5.5	8.6	5.5	12.3	0.02	2.87
<b>E9 COUNTRIES</b>	<b>11.2</b>	<b>16.8</b>	<b>8.4</b>	<b>11.1</b>	<b>14.2</b>	<b>25.2</b>	<b>0.09</b>	<b>12.47</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>6.0</b>	<b>7.9</b>	<b>4.8</b>	<b>5.8</b>	<b>7.3</b>	<b>10.4</b>	<b>0.04</b>	<b>4.86</b>
Developed countries	0.2	0.2	0.1	0.1	0.3	0.3	0.01	0.65
Developing countries	9.0	13.1	7.0	9.0	11.1	18.7	0.07	8.94
Northern Africa	19.4	40.0	17.9	29.1	20.8	58.4	0.13	22.32
Sub-Saharan Africa	5.1	9.5	5.1	8.0	5.1	11.3	0.02	2.72
Latin America and the Caribbean	2.3	2.6	2.0	2.3	2.7	3.1	0.00	0.43
Eastern Asia	12.3	15.6	7.6	8.7	17.3	24.7	0.12	15.32
South Asia	12.1	25.4	11.1	18.4	13.5	39.6	0.10	18.58
South-Eastern Asia	4.1	4.8	2.4	2.7	5.7	7.0	0.04	4.69
Western Asia	6.7	8.9	5.0	5.9	8.7	13.3	0.05	6.51
Oceania	-0.5	-0.7	-0.3	-0.4	-0.7	-1.1	0.00	-0.15
Eurasia CIS	1.0	1.0	0.2	0.2	1.8	1.8	0.01	1.08
Asia CIS	0.7	0.7	0.2	0.2	1.0	1.1	0.00	0.44
Europe CIS	1.1	1.1	0.2	0.2	1.9	1.9	0.02	2.26
Landlocked Developing Countries	5.1	9.1	6.2	9.8	4.2	8.6	-0.01	-1.04
Least Developed Countries	6.0	12.6	5.7	9.9	6.2	16.4	0.04	6.45
Small Island Developing States	1.3	1.6	0.8	1.0	1.7	2.1	0.01	0.63
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries ( $\leq$ \$825)	9.3	18.1	8.7	13.9	10.1	25.4	0.07	10.47
Middle-income countries	7.8	9.4	5.2	5.9	10.4	13.6	0.06	7.50
Lower-middle income (\$826-\$3,255)	9.4	11.7	6.1	7.1	12.5	17.3	0.08	9.86
Upper-middle income (\$3,256-\$10,065)	2.0	2.2	1.2	1.3	2.7	3.0	0.02	1.75
Low- and middle-income countries	7.9	11.2	6.1	7.8	9.7	15.4	0.06	7.54
East Asia and the Pacific	10.7	13.3	6.5	7.4	14.9	20.7	0.10	12.64
Europe and Central Asia	1.3	1.4	0.7	0.7	1.9	2.0	0.01	0.89
Latin America and the Caribbean	2.3	2.7	2.0	2.3	2.7	3.1	0.00	0.43
Middle East and North Africa	14.8	25.4	13.1	18.8	16.5	35.4	0.09	13.35
South Asia	11.6	24.8	10.8	18.1	12.8	38.6	0.10	17.29
Sub-Saharan Africa	5.1	9.5	5.1	8.0	5.1	11.4	0.02	2.73
High-income countries (\$10,066+)	0.2	0.2	0.2	0.2	0.3	0.3	0.01	0.64
High-income OECD	0.2	0.2	0.1	0.1	0.2	0.2	0.00	0.49
Other high income	5.9	7.1	4.5	5.1	7.6	9.6	0.04	4.03

Table I.4 Change in adult (15 years and older) number of illiterates by sex and region, 1990-2000

Region	Change in adult (15+) number of illiterates, 1990-2000							
	+/-	% +/-	+/-	% +/-	+/-	% +/-	+/-	% +/-
	Total	Total	Male	Male	Female	Female	% Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>-89,974,861</b>	<b>-10.4</b>	<b>-40,522,864</b>	<b>-12.8</b>	<b>-49,451,997</b>	<b>-9.0</b>	<b>1.0</b>	<b>1.5</b>
Africa	19,548,912	11.3	4,312,125	6.5	15,236,787	14.4	1.7	2.8
Americas	1,869,475	4.9	971,668	5.7	897,806	4.2	-0.3	-0.6
North America	1,160,538	7.6	666,578	10.4	493,981	5.6	-1.1	-1.9
South America	708,936	3.1	305,031	2.9	403,806	3.3	0.1	0.2
Asia	-108,369,760	-16.9	-45,456,201	-19.8	-62,913,559	-15.3	1.3	1.9
Europe	-3,245,829	-34.8	-443,012	-18.1	-2,802,817	-40.7	-6.7	-9.1
Oceania	222,381	17.0	92,860	16.2	129,517	17.7	0.3	0.6
<b>EFA REGIONS</b>								
<b>World</b>	<b>-90,026,116</b>	<b>-10.4</b>	<b>-40,532,882</b>	<b>-12.8</b>	<b>-49,494,233</b>	<b>-9.1</b>	<b>1.0</b>	<b>1.5</b>
Developed countries	-1,108,374	-11.9	-167,816	-5.1	-940,558	-15.6	-2.7	-4.2
Countries in transition	-2,085,845	-61.4	-185,414	-36.9	-1,900,430	-65.6	-9.4	-11.0
Developing countries	-86,831,587	-10.2	-40,178,931	-12.8	-46,652,656	-8.7	1.1	1.7
Arab States	1,755,020	3.2	-1,475,966	-7.2	3,230,986	9.3	3.7	5.9
Central and Eastern Europe	-3,615,110	-28.8	-892,818	-31.8	-2,722,302	-28.0	0.9	1.2
Central Asia	-250,025	-39.8	-41,680	-28.6	-208,346	-43.1	-4.3	-5.6
East Asia and the Pacific	-101,956,638	-44.8	-32,546,230	-46.7	-69,411,108	-44.0	1.1	1.5
East Asia	-102,241,111	-45.2	-32,659,678	-47.3	-69,581,334	-44.3	1.2	1.7
The Pacific	283,593	21.7	113,502	19.8	170,087	23.2	0.7	1.3
Latin America and the Caribbean	1,614,892	4.4	858,755	5.3	756,137	3.7	-0.4	-0.7
Caribbean	534,224	22.7	263,448	23.2	270,776	22.3	-0.2	-0.4
Latin America	1,080,678	3.2	595,237	3.9	485,341	2.6	-0.3	-0.6
North America and Western Europe	-603,213	-9.4	-106,135	-4.5	-497,078	-12.3	-2.0	-3.2
South and West Asia	-6,306,694	-1.6	-12,280,068	-8.0	5,972,374	2.5	2.5	4.2
Sub-Saharan Africa	19,335,894	14.8	5,951,419	11.6	13,384,975	16.8	1.1	1.8
<b>E9 COUNTRIES</b>	<b>-110,328,166</b>	<b>-17.5</b>	<b>-46,803,728</b>	<b>-20.5</b>	<b>-63,525,438</b>	<b>-15.8</b>	<b>1.3</b>	<b>2.1</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>-89,974,861</b>	<b>-10.4</b>	<b>-40,522,864</b>	<b>-12.8</b>	<b>-49,451,997</b>	<b>-9.0</b>	<b>1.0</b>	<b>1.5</b>
Developed countries	-1,108,374	-11.9	-167,816	-5.1	-940,558	-15.6	-2.7	-4.2
Developing countries	-86,781,332	-10.2	-40,169,913	-12.8	-46,611,419	-8.7	1.1	1.7
Northern Africa	-1,720,650	-4.9	-2,386,599	-18.3	665,949	3.0	5.3	8.4
Sub-Saharan Africa	21,269,162	15.5	6,698,824	12.5	14,570,737	17.4	1.0	1.7
Latin America and the Caribbean	1,614,892	4.4	858,755	5.3	756,137	3.7	-0.4	-0.7
Eastern Asia	-98,240,557	-52.8	-31,851,820	-57.0	-66,388,837	-51.0	2.7	3.8
South Asia	-6,306,694	-1.6	-12,280,068	-8.0	5,972,374	2.5	2.5	4.2
South-Eastern Asia	-3,930,460	-9.9	-794,267	-6.2	-3,136,194	-11.8	-1.4	-2.0
Western Asia	315,296	1.5	-505,606	-7.4	820,982	5.6	2.8	4.1
Oceania	217,819	17.1	90,974	16.2	126,844	17.8	0.3	0.6
Eurasia CIS	-2,085,845	-61.4	-185,414	-36.9	-1,900,430	-65.6	-9.4	-11.0
Asia CIS	-254,293	-42.6	-43,592	-33.0	-210,701	-45.3	-3.7	-4.7
Europe CIS	-1,831,553	-65.4	-141,822	-38.2	-1,689,731	-69.5	-10.4	-12.0
Landlocked Developing Countries	9,118,897	13.2	2,073,726	7.3	7,045,171	17.3	2.1	3.6
Least Developed Countries	25,123,927	15.5	8,410,229	12.9	16,713,598	17.2	0.9	1.5
Small Island Developing States	678,805	12.0	355,252	14.0	323,553	10.3	-0.8	-1.5
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	18,379,904	3.5	-4,037,477	-2.0	22,418,381	7.0	2.1	3.4
Middle-income countries	-107,459,846	-33.0	-36,211,268	-33.7	-71,248,578	-32.7	0.3	0.5
Lower-middle income (\$826-\$3,255)	-103,716,683	-35.0	-35,279,030	-36.1	-68,436,953	-34.5	0.6	0.8
Upper-middle income (\$3,256-\$10,065)	-3,743,263	-12.8	-931,888	-9.5	-2,811,425	-14.5	-1.3	-1.9
Low- and middle-income countries	-89,078,942	-10.5	-40,248,745	-12.9	-48,830,198	-9.0	1.0	1.6
East Asia and the Pacific	-102,047,420	-45.1	-32,577,888	-47.1	-69,469,232	-44.3	1.1	1.6
Europe and Central Asia	-3,867,707	-29.5	-935,909	-31.9	-2,931,818	-28.8	0.8	1.0
Latin America and the Caribbean	1,612,842	4.4	857,683	5.3	755,059	3.7	-0.4	-0.7
Middle East and North Africa	-2,137,050	-3.8	-3,232,249	-15.7	1,095,200	3.1	4.5	7.2
South Asia	-3,875,811	-1.0	-11,046,979	-7.4	7,172,168	3.1	2.5	4.1
Sub-Saharan Africa	21,234,604	15.5	6,686,978	12.5	14,548,127	17.4	1.0	1.7
High-income countries (\$10,066+)	-895,919	-7.6	-274,140	-5.9	-621,809	-8.7	-0.7	-1.2
High-income OECD	-531,200	-7.1	-82,345	-3.0	-448,855	-9.6	-1.7	-2.7
Other high income	-364,749	-8.4	-191,795	-10.3	-172,955	-6.9	0.9	1.6

Table I.5 Youth (15 to 24 years of age) literacy rate and number of illiterates by sex and region, 1990

Region	1990							
	Youth (15-24) literacy rate				Youth (15-24) number of illiterates			
	Total	Male	Female	GPI	Total	Male	Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>83.5</b>	<b>87.8</b>	<b>79.2</b>	<b>0.90</b>	<b>165,960,162</b>	<b>62,925,561</b>	<b>103,034,602</b>	<b>62.1</b>
Africa	64.8	72.0	58.0	0.81	45,121,896	18,117,435	27,004,461	59.8
Americas	95.4	95.2	95.7	1.01	5,936,485	3,158,633	2,777,852	46.8
North America	96.2	96.4	96.0	1.00	2,709,455	1,287,962	1,421,493	52.5
South America	94.6	93.8	95.4	1.02	3,227,030	1,870,672	1,356,359	42.0
Asia	82.3	87.6	76.9	0.88	114,143,152	41,292,387	72,850,765	63.8
Europe	98.7	99.6	99.5	1.00	411,582	198,774	212,808	51.7
Oceania	92.3	93.0	91.5	0.98	347,047	158,332	188,715	54.4
<b>EFA REGIONS</b>								
<b>World</b>	<b>83.5</b>	<b>87.8</b>	<b>79.2</b>	<b>0.90</b>	<b>165,920,605</b>	<b>62,912,732</b>	<b>103,007,873</b>	<b>62.1</b>
Developed countries	98.7	99.4	99.4	1.00	770,643	365,845	404,798	52.5
Countries in transition	99.7	99.7	99.6	1.00	132,458	59,219	73,239	55.3
Developing countries	80.2	85.4	75.0	0.88	165,017,504	62,487,668	102,529,836	62.1
Arab States	74.8	83.2	66.1	0.79	11,230,543	3,846,281	7,384,262	65.8
Central and Eastern Europe	96.7	99.0	97.4	0.98	1,100,593	312,095	788,498	71.6
Central Asia	99.6	99.6	99.7	1.00	44,295	23,311	20,984	47.4
East Asia and the Pacific	94.8	96.9	92.7	0.96	19,777,339	6,101,748	13,675,591	69.1
East Asia	94.8	96.9	92.7	0.96	19,430,292	5,943,417	13,486,876	69.4
The Pacific	92.3	93.0	91.5	0.98	347,047	158,332	188,715	54.4
Latin America and the Caribbean	93.7	93.3	94.2	1.01	5,641,407	3,022,291	2,619,116	46.4
Caribbean	77.8	76.4	79.4	1.04	569,379	303,927	265,452	46.6
Latin America	94.2	93.8	94.6	1.01	5,072,028	2,718,363	2,353,665	46.4
North America and Western Europe	99.4	99.5	99.4	1.00	474,800	228,101	246,700	52.0
South and West Asia	60.7	71.6	49.1	0.69	91,318,256	34,397,309	56,920,948	62.3
Sub-Saharan Africa	63.6	70.2	57.6	0.82	36,333,370	14,981,596	21,351,774	58.8
<b>E9 COUNTRIES</b>	<b>80.5</b>	<b>86.1</b>	<b>74.7</b>	<b>0.87</b>	<b>112,174,425</b>	<b>41,209,427</b>	<b>70,964,999</b>	<b>63.3</b>



<b>MDG REGIONS</b>								
<b>World</b>	<b>83.5</b>	<b>87.8</b>	<b>79.2</b>	<b>0.90</b>	<b>165,960,162</b>	<b>62,925,561</b>	<b>103,034,602</b>	<b>62.1</b>
Developed countries	98.7	99.4	99.4	1.00	770,643	365,845	404,798	52.5
Developing countries	80.2	85.4	75.0	0.88	165,057,061	62,500,497	102,556,565	62.1
Northern Africa	66.7	76.7	56.3	0.73	7,510,422	2,680,498	4,829,925	64.3
Sub-Saharan Africa	64.4	71.0	58.4	0.82	37,611,474	15,436,937	22,174,537	59.0
Latin America and the Caribbean	93.7	93.3	94.2	1.01	5,641,407	3,022,291	2,619,116	46.4
Eastern Asia	94.5	97.1	91.8	0.95	14,516,179	3,956,387	10,559,792	72.7
South Asia	60.7	71.6	49.1	0.69	91,318,256	34,397,309	56,920,948	62.3
South-Eastern Asia	94.9	95.9	93.9	0.98	4,807,928	1,936,054	2,871,875	59.7
Western Asia	88.5	93.8	82.9	0.88	3,310,750	915,522	2,395,228	72.3
Oceania	73.0	75.3	70.6	0.94	340,644	155,500	185,144	54.4
Eurasia CIS	99.7	99.7	99.6	1.00	132,458	59,219	73,239	55.3
Asia CIS	99.7	99.7	99.7	1.00	32,974	15,828	17,146	52.0
Europe CIS	99.6	99.7	99.6	1.00	99,484	43,391	56,093	56.4
Landlocked Developing Countries	60.3	66.4	54.8	0.82	20,811,575	8,926,063	11,885,512	57.1
Least Developed Countries	56.3	64.0	49.1	0.77	46,904,814	19,610,666	27,294,148	58.2
Small Island Developing States	85.7	86.0	85.4	0.99	1,203,443	592,668	610,775	50.8
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	63.0	72.2	53.6	0.74	129,048,583	49,909,699	79,138,883	61.3
Middle-income countries	93.1	95.4	91.1	0.96	35,725,656	12,554,186	23,171,470	64.9
Lower-middle income (\$826-\$3,255)	92.6	95.0	90.1	0.95	32,637,174	11,274,772	21,362,402	65.5
Upper-middle income (\$3,256-\$10,065)	95.8	97.3	96.1	0.99	3,088,482	1,279,414	1,809,068	58.6
Low- and middle-income countries	81.2	86.2	76.3	0.89	164,774,238	62,463,885	102,310,353	62.1
East Asia and the Pacific	94.4	96.7	92.1	0.95	19,546,368	6,012,733	13,533,636	69.2
Europe and Central Asia	97.2	99.1	97.7	0.99	1,132,870	327,534	805,336	71.1
Latin America and the Caribbean	93.7	93.3	94.2	1.01	5,639,258	3,020,901	2,618,357	46.4
Middle East and North Africa	76.2	84.2	67.6	0.80	10,939,671	3,693,163	7,246,508	66.2
South Asia	59.4	70.6	47.6	0.67	89,918,835	33,977,969	55,940,866	62.2
Sub-Saharan Africa	64.3	71.0	58.3	0.82	37,597,236	15,431,585	22,165,651	59.0
High-income countries (\$10,066+)	99.0	99.3	98.8	1.00	1,185,924	461,676	724,248	61.1
High-income OECD	99.4	99.5	99.4	1.00	705,792	319,069	386,722	54.8
Other high income	92.0	95.2	88.6	0.93	480,132	142,606	337,526	70.3

Table I.6 Youth (15 to 24 years of age) literacy rate and number of illiterates by sex and region, 2000

Region	2000							
	Youth (15-24) literacy rate				Youth (15-24) number of illiterates			
	Total	Male	Female	GPI	Total	Male	Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>87.6</b>	<b>90.7</b>	<b>84.5</b>	<b>0.93</b>	<b>135,769,284</b>	<b>52,232,387</b>	<b>83,536,897</b>	<b>61.5</b>
Africa	72.5	78.4	66.9	0.85	48,151,113	19,156,315	28,994,798	60.2
Americas	97.0	96.8	97.3	1.01	4,452,753	2,455,789	1,996,964	44.8
North America	96.8	96.8	96.8	1.00	2,564,757	1,293,254	1,271,503	49.6
South America	97.3	96.7	97.9	1.01	1,887,996	1,162,535	725,460	38.4
Asia	87.7	91.2	83.9	0.92	82,368,559	30,218,869	52,149,689	63.3
Europe	99.6	99.6	99.6	1.00	411,642	217,664	193,978	47.1
Oceania	92.0	92.5	91.4	0.99	385,218	183,750	201,469	52.3
<b>EFA REGIONS</b>								
<b>World</b>	<b>87.6</b>	<b>90.7</b>	<b>84.4</b>	<b>0.93</b>	<b>135,728,593</b>	<b>52,219,800</b>	<b>83,508,793</b>	<b>61.5</b>
Developed countries	99.4	99.4	99.4	1.00	791,669	381,823	409,845	51.8
Countries in transition	99.7	99.7	99.8	1.00	120,371	66,829	53,543	44.5
Developing countries	85.3	89.0	81.5	0.92	134,816,554	51,771,148	83,045,405	61.6
Arab States	85.1	90.6	79.5	0.88	9,239,434	2,992,158	6,247,276	67.6
Central and Eastern Europe	98.7	99.2	98.3	0.99	832,134	269,389	562,745	67.6
Central Asia	99.7	99.7	99.7	1.00	46,026	24,207	21,818	47.4
East Asia and the Pacific	97.9	98.2	97.6	0.99	6,809,747	3,002,338	3,807,409	55.9
East Asia	98.0	98.3	97.7	0.99	6,420,544	2,816,994	3,603,550	56.1
The Pacific	92.2	92.8	91.6	0.99	389,203	185,344	203,859	52.4
Latin America and the Caribbean	96.0	95.6	96.5	1.01	4,111,467	2,297,870	1,813,597	44.1
Caribbean	77.1	75.8	78.5	1.03	736,376	390,744	345,633	46.9
Latin America	96.6	96.2	97.0	1.01	3,375,091	1,907,127	1,467,964	43.5
North America and Western Europe	99.5	99.5	99.4	1.00	506,494	241,858	264,636	52.2
South and West Asia	74.6	82.1	66.6	0.81	72,836,295	26,512,254	46,324,041	63.6
Sub-Saharan Africa	69.4	75.3	63.9	0.85	41,346,997	16,879,726	24,467,271	59.2
<b>E9 COUNTRIES</b>	<b>86.8</b>	<b>90.5</b>	<b>82.8</b>	<b>0.92</b>	<b>78,665,496</b>	<b>29,143,740</b>	<b>49,521,757</b>	<b>63.0</b>

<b>MDG REGIONS</b>									
<b>World</b>	<b>87.6</b>	<b>90.7</b>	<b>84.5</b>	<b>0.93</b>	<b>135,769,284</b>	<b>52,232,387</b>	<b>83,536,897</b>		<b>61.5</b>
Developed countries	99.4	99.4	99.4	1.00	791,669	381,823	409,845		51.8
Developing countries	85.3	89.0	81.5	0.92	134,857,245	51,783,735	83,073,509		61.6
Northern Africa	84.3	89.9	78.4	0.87	5,118,774	1,662,578	3,456,197		67.5
Sub-Saharan Africa	69.8	75.7	64.3	0.85	43,032,338	17,493,737	25,538,601		59.3
Latin America and the Caribbean	96.0	95.6	96.5	1.01	4,111,467	2,297,870	1,813,597		44.1
Eastern Asia	98.9	99.2	98.5	0.99	2,407,185	880,684	1,526,501		63.4
South Asia	74.6	82.1	66.6	0.81	72,836,295	26,512,254	46,324,041		63.6
South-Eastern Asia	96.2	96.4	96.0	1.00	3,951,799	1,904,717	2,047,081		51.8
Western Asia	91.8	95.5	88.0	0.92	3,021,019	851,233	2,169,786		71.8
Oceania	72.8	74.9	70.5	0.94	378,368	180,662	197,706		52.3
Eurasia CIS	99.7	99.7	99.8	1.00	120,371	66,829	53,543		44.5
Asia CIS	99.8	99.8	99.7	1.00	33,884	16,186	17,698		52.2
Europe CIS	99.7	99.7	99.8	1.00	86,488	50,643	35,845		41.4
Landlocked Developing Countries	67.6	74.7	61.3	0.82	22,469,366	8,957,714	13,511,651		60.1
Least Developed Countries	64.3	71.4	57.6	0.81	50,436,570	20,525,753	29,910,817		59.3
Small Island Developing States	86.5	86.4	86.6	1.00	1,313,690	673,244	640,445		48.8
<b>WORLD BANK INCOME REGIONS</b>									
Low-income countries (≤ \$825)	73.3	80.3	66.2	0.82	117,123,438	44,430,207	72,693,231		62.1
Middle-income countries	96.7	97.3	96.0	0.99	17,694,381	7,386,828	10,307,554		58.3
Lower-middle income (\$826-\$3,255)	96.4	97.1	95.6	0.99	15,377,454	6,338,910	9,038,544		58.8
Upper-middle income (\$3,256-\$10,065)	97.8	98.0	97.6	1.00	2,316,927	1,047,918	1,269,010		54.8
Low- and middle-income countries	86.1	89.5	82.5	0.92	134,817,820	51,817,034	83,000,785		61.6
East Asia and the Pacific	97.8	98.1	97.5	0.99	6,634,182	2,935,840	3,698,342		55.7
Europe and Central Asia	98.9	99.3	98.5	0.99	865,607	285,324	580,283		67.0
Latin America and the Caribbean	96.0	95.6	96.5	1.01	4,109,477	2,296,589	1,812,887		44.1
Middle East and North Africa	88.4	92.8	83.8	0.90	7,810,121	2,470,868	5,339,253		68.4
South Asia	73.2	81.1	64.6	0.80	72,384,956	26,341,780	46,043,176		63.6
Sub-Saharan Africa	69.7	75.7	64.3	0.85	43,013,478	17,486,633	25,526,845		59.3
High-income countries (\$10,066+)	99.3	99.4	99.1	1.00	951,465	415,353	536,112		56.3
High-income OECD	99.4	99.5	99.4	1.00	685,995	312,532	373,463		54.4
Other high income	97.0	97.8	96.2	0.98	265,470	102,821	162,648		61.3

Table I.7 Change in youth (15 to 24 years of age) literacy rate by sex and region, 1990-2000

Region	Change in youth (15-24) literacy rate, 1990-2000							
	+/ -	% +/ -	+/ -	% +/ -	+/ -	% +/ -	+/ -	% +/ -
	Total	Total	Male	Male	Female	Female	GPI	GPI
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>4.1</b>	<b>4.9</b>	<b>2.9</b>	<b>3.3</b>	<b>5.3</b>	<b>6.7</b>	<b>0.03</b>	<b>3.33</b>
Africa	7.7	11.9	6.4	8.9	8.9	15.3	0.04	4.94
Americas	1.6	1.7	1.6	1.7	1.6	1.7	0.00	0.00
North America	0.6	0.6	0.4	0.4	0.8	0.8	0.00	0.00
South America	2.7	2.9	2.9	3.1	2.5	2.6	-0.01	-0.98
Asia	5.4	6.6	3.6	4.1	7.0	9.1	0.04	4.55
Europe	0.9	0.9	0.0	0.0	0.1	0.1	0.00	0.00
Oceania	-0.3	-0.3	-0.5	-0.5	-0.1	-0.1	0.01	1.02
<b>EFA REGIONS</b>								
<b>World</b>	<b>4.1</b>	<b>4.9</b>	<b>2.9</b>	<b>3.3</b>	<b>5.2</b>	<b>6.6</b>	<b>0.03</b>	<b>3.33</b>
Developed countries	0.7	0.7	0.0	0.0	0.0	0.0	0.00	0.00
Countries in transition	0.0	0.0	0.0	0.0	0.2	0.2	0.00	0.00
Developing countries	5.1	6.4	3.6	4.2	6.5	8.7	0.04	4.55
Arab States	10.3	13.8	7.4	8.9	13.4	20.3	0.09	11.39
Central and Eastern Europe	2.0	2.1	0.2	0.2	0.9	0.9	0.01	1.02
Central Asia	0.1	0.1	0.1	0.1	0.0	0.0	0.00	0.00
East Asia and the Pacific	3.1	3.3	1.3	1.3	4.9	5.3	0.03	3.13
East Asia	3.2	3.4	1.4	1.4	5.0	5.4	0.03	3.13
The Pacific	-0.1	-0.1	-0.2	-0.2	0.1	0.1	0.01	1.02
Latin America and the Caribbean	2.3	2.5	2.3	2.5	2.3	2.4	0.00	0.00
Caribbean	-0.7	-0.9	-0.6	-0.8	-0.9	-1.1	-0.01	-0.96
Latin America	2.4	2.6	2.4	2.6	2.4	2.5	0.00	0.00
North America and Western Europe	0.1	0.1	0.0	0.0	0.0	0.0	0.00	0.00
South and West Asia	13.9	22.9	10.5	14.7	17.5	35.6	0.12	17.39
Sub-Saharan Africa	5.8	9.1	5.1	7.3	6.3	10.9	0.03	3.66
<b>E9 COUNTRIES</b>	<b>6.3</b>	<b>7.8</b>	<b>4.4</b>	<b>5.1</b>	<b>8.1</b>	<b>10.8</b>	<b>0.05</b>	<b>5.75</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>4.1</b>	<b>4.9</b>	<b>2.9</b>	<b>3.3</b>	<b>5.3</b>	<b>6.7</b>	<b>0.03</b>	<b>3.33</b>
Developed countries	0.7	0.7	0.0	0.0	0.0	0.0	0.00	0.00
Developing countries	5.1	6.4	3.6	4.2	6.5	8.7	0.04	4.55
Northern Africa	17.6	26.4	13.2	17.2	22.1	39.3	0.14	19.18
Sub-Saharan Africa	5.4	8.4	4.7	6.6	5.9	10.1	0.03	3.66
Latin America and the Caribbean	2.3	2.5	2.3	2.5	2.3	2.4	0.00	0.00
Eastern Asia	4.4	4.7	2.1	2.2	6.7	7.3	0.04	4.21
South Asia	13.9	22.9	10.5	14.7	17.5	35.6	0.12	17.39
South-Eastern Asia	1.3	1.4	0.5	0.5	2.1	2.2	0.02	2.04
Western Asia	3.3	3.7	1.7	1.8	5.1	6.2	0.04	4.55
Oceania	-0.2	-0.3	-0.4	-0.5	-0.1	-0.1	0.00	0.00
Eurasia CIS	0.0	0.0	0.0	0.0	0.2	0.2	0.00	0.00
Asia CIS	0.1	0.1	0.1	0.1	0.0	0.0	0.00	0.00
Europe CIS	0.1	0.1	0.0	0.0	0.2	0.2	0.00	0.00
Landlocked Developing Countries	7.3	12.1	8.3	12.5	6.5	11.9	0.00	0.00
Least Developed Countries	8.0	14.2	7.4	11.6	8.5	17.3	0.04	5.19
Small Island Developing States	0.8	0.9	0.4	0.5	1.2	1.4	0.01	1.01
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries ( $\leq$ \$825)	10.3	16.4	8.1	11.2	12.6	23.5	0.08	10.81
Middle-income countries	3.6	3.9	1.9	2.0	4.9	5.4	0.03	3.13
Lower-middle income (\$826-\$3,255)	3.8	4.1	2.1	2.2	5.5	6.1	0.04	4.21
Upper-middle income (\$3,256-\$10,065)	2.0	2.1	0.7	0.7	1.5	1.6	0.01	1.01
Low- and middle-income countries	4.9	6.0	3.3	3.8	6.2	8.1	0.03	3.37
East Asia and the Pacific	3.4	3.6	1.4	1.5	5.4	5.9	0.04	4.21
Europe and Central Asia	1.7	1.8	0.2	0.2	0.8	0.8	0.00	0.00
Latin America and the Caribbean	2.3	2.5	2.3	2.5	2.3	2.4	0.00	0.00
Middle East and North Africa	12.2	16.0	8.6	10.2	16.2	24.0	0.10	12.50
South Asia	13.8	23.2	10.5	14.9	17.0	35.7	0.13	19.40
Sub-Saharan Africa	5.4	8.4	4.7	6.6	6.0	10.3	0.03	3.66
High-income countries (\$10,066+)	0.3	0.3	0.1	0.1	0.3	0.3	0.00	0.00
High-income OECD	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00
Other high income	5.0	5.4	2.6	2.7	7.6	8.6	0.05	5.38

Table I.8 Change in youth (15 to 24 years of age) number of illiterates by sex and region, 1990-2000

Region	Change in youth (15-24) number of illiterates, 1990-2000							
	±/	% ±/	±/	% ±/	±/	% ±/	±/	% ±/
	Total	Total	Male	Male	Female	Female	% Female	%Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>-30,190,878</b>	<b>-18.2</b>	<b>-10,693,174</b>	<b>-17.0</b>	<b>-19,497,705</b>	<b>-18.9</b>	<b>-0.6</b>	<b>-1.0</b>
Africa	3,029,217	6.7	1,038,880	5.7	1,990,337	7.4	0.4	0.7
Americas	-1,483,732	-25.0	-702,844	-22.3	-780,888	-28.1	-2.0	-4.3
North America	-144,698	-5.3	5,292	0.4	-149,990	-10.6	-2.9	-5.5
South America	-1,339,034	-41.5	-708,137	-37.9	-630,899	-46.5	-3.6	-8.6
Asia	-31,774,593	-27.8	-11,073,518	-26.8	-20,701,076	-28.4	-0.5	-0.8
Europe	60	0.0	18,890	9.5	-18,830	-8.9	-4.6	-8.9
Oceania	38,171	11.0	25,418	16.1	12,754	6.8	-2.1	-3.9
<b>EFA REGIONS</b>								
<b>World</b>	<b>-30,192,012</b>	<b>-18.2</b>	<b>-10,692,932</b>	<b>-17.0</b>	<b>-19,499,080</b>	<b>-18.9</b>	<b>-0.6</b>	<b>-1.0</b>
Developed countries	21,026	2.7	15,978	4.4	5,047	1.3	-0.7	-1.3
Countries in transition	-12,087	-9.1	7,610	12.9	-19,696	-26.9	-10.8	-19.5
Developing countries	-30,200,950	-18.3	-10,716,520	-17.2	-19,484,431	-19.0	-0.5	-0.8
Arab States	-1,991,109	-17.7	-854,123	-22.2	-1,136,986	-15.4	1.8	2.7
Central and Eastern Europe	-268,459	-24.4	-42,706	-13.7	-225,753	-28.6	-4.0	-5.6
Central Asia	1,731	3.9	896	3.8	834	4.0	0.0	0.0
East Asia and the Pacific	-12,967,592	-65.6	-3,099,410	-50.8	-9,868,182	-72.2	-13.2	-19.1
East Asia	-13,009,748	-67.0	-3,126,423	-52.6	-9,883,326	-73.3	-13.3	-19.2
The Pacific	42,156	12.2	27,012	17.1	15,144	8.0	-2.0	-3.7
Latin America and the Caribbean	-1,529,940	-27.1	-724,421	-24.0	-805,519	-30.8	-2.3	-5.0
Caribbean	166,997	29.3	86,817	28.6	80,181	30.2	0.3	0.6
Latin America	-1,696,937	-33.5	-811,236	-29.8	-885,701	-37.6	-2.9	-6.3
North America and Western Europe	31,694	6.7	13,757	6.0	17,936	7.3	0.2	0.4
South and West Asia	-18,481,961	-20.2	-7,885,055	-22.9	-10,596,907	-18.6	1.3	2.1
Sub-Saharan Africa	5,013,627	13.8	1,898,130	12.7	3,115,497	14.6	0.4	0.7
<b>E9 COUNTRIES</b>	<b>-33,508,929</b>	<b>-29.9</b>	<b>-12,065,687</b>	<b>-29.3</b>	<b>-21,443,242</b>	<b>-30.2</b>	<b>-0.3</b>	<b>-0.5</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>-30,190,878</b>	<b>-18.2</b>	<b>-10,693,174</b>	<b>-17.0</b>	<b>-19,497,705</b>	<b>-18.9</b>	<b>-0.6</b>	<b>-1.0</b>
Developed countries	21,026	2.7	15,978	4.4	5,047	1.3	-0.7	-1.3
Developing countries	-30,199,816	-18.3	-10,716,762	-17.2	-19,483,056	-19.0	-0.5	-0.8
Northern Africa	-2,391,648	-31.8	-1,017,920	-38.0	-1,373,728	-28.4	3.2	5.0
Sub-Saharan Africa	5,420,864	14.4	2,056,800	13.3	3,364,064	15.2	0.3	0.5
Latin America and the Caribbean	-1,529,940	-27.1	-724,421	-24.0	-805,519	-30.8	-2.3	-5.0
Eastern Asia	-12,108,994	-83.4	-3,075,703	-77.7	-9,033,291	-85.5	-9.3	-12.8
South Asia	-18,481,961	-20.2	-7,885,055	-22.9	-10,596,907	-18.6	1.3	2.1
South-Eastern Asia	-856,129	-17.8	-31,337	-1.6	-824,794	-28.7	-7.9	-13.2
Western Asia	-289,731	-8.8	-64,289	-7.0	-225,442	-9.4	-0.5	-0.7
Oceania	37,724	11.1	25,162	16.2	12,562	6.8	-2.1	-3.9
Eurasia CIS	-12,087	-9.1	7,610	12.9	-19,696	-26.9	-10.8	-19.5
Asia CIS	910	2.8	358	2.3	552	3.2	0.2	0.4
Europe CIS	-12,996	-13.1	7,252	16.7	-20,248	-36.1	-15.0	-26.6
Landlocked Developing Countries	1,657,791	8.0	31,651	0.4	1,626,139	13.7	3.0	5.3
Least Developed Countries	3,531,756	7.5	915,087	4.7	2,616,669	9.6	1.1	1.9
Small Island Developing States	110,247	9.2	80,576	13.6	29,670	4.9	-2.0	-3.9
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	-11,925,145	-9.2	-5,479,492	-11.0	-6,445,652	-8.1	0.8	1.3
Middle-income countries	-18,031,275	-50.5	-5,167,358	-41.2	-12,863,916	-55.5	-6.6	-10.2
Lower-middle income (\$826-\$3,255)	-17,259,720	-52.9	-4,935,862	-43.8	-12,323,858	-57.7	-6.7	-10.2
Upper-middle income (\$3,256-\$10,065)	-771,555	-25.0	-231,496	-18.1	-540,058	-29.9	-3.8	-6.5
Low- and middle-income countries	-29,956,418	-18.2	-10,646,851	-17.0	-19,309,568	-18.9	-0.5	-0.8
East Asia and the Pacific	-12,912,186	-66.1	-3,076,893	-51.2	-9,835,294	-72.7	-13.5	-19.5
Europe and Central Asia	-267,263	-23.6	-42,210	-12.9	-225,053	-28.0	-4.1	-5.8
Latin America and the Caribbean	-1,529,781	-27.1	-724,312	-24.0	-805,470	-30.8	-2.3	-5.0
Middle East and North Africa	-3,129,550	-28.6	-1,222,295	-33.1	-1,907,255	-26.3	2.2	3.3
South Asia	-17,533,879	-19.5	-7,636,189	-22.5	-9,897,690	-17.7	1.4	2.3
Sub-Saharan Africa	5,416,242	14.4	2,055,048	13.3	3,361,194	15.2	0.3	0.5
High-income countries (\$10,066+)	-234,459	-19.8	-46,323	-10.0	-188,136	-26.0	-4.8	-7.9
High-income OECD	-19,797	-2.8	-6,537	-2.1	-13,259	-3.4	-0.4	-0.7
Other high income	-214,662	-44.7	-39,785	-27.9	-174,878	-51.8	-9.0	-12.8

Table I.9 Mature adult (25 years and older) literacy rate and number of illiterates by sex and region, 1990

Region	1990							
	Mature adults (25+) literacy rate				Mature adults (25+) number of illiterates			
	Total	Male	Female	GPI	Total	Male	Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>73.7</b>	<b>80.6</b>	<b>66.8</b>	<b>0.83</b>	<b>698,232,838</b>	<b>254,049,439</b>	<b>444,183,398</b>	<b>63.6</b>
Africa	46.9	58.4	35.9	0.62	127,296,104	48,562,565	78,733,539	61.9
Americas	91.8	92.7	91.0	0.98	32,489,215	13,972,167	18,517,048	57.0
North America	94.9	95.7	94.2	0.98	12,589,145	5,134,698	7,454,427	59.2
South America	86.3	87.5	85.3	0.98	19,900,070	8,837,528	11,062,641	55.6
Asia	65.2	75.4	54.4	0.72	528,557,848	188,846,613	339,711,235	64.3
Europe	98.4	99.0	97.5	0.98	8,929,798	2,251,376	6,678,422	74.8
Oceania	93.9	94.6	93.2	0.99	959,833	416,414	543,423	56.6
<b>EFA REGIONS</b>								
<b>World</b>	<b>73.6</b>	<b>80.6</b>	<b>66.7</b>	<b>0.83</b>	<b>698,059,395</b>	<b>253,994,268</b>	<b>444,066,127</b>	<b>63.6</b>
Developed countries	98.8	99.1	98.3	0.99	8,529,837	2,904,265	5,625,572	66.0
Countries in transition	98.0	99.4	97.0	0.98	3,266,752	443,950	2,822,801	86.4
Developing countries	62.8	73.0	52.2	0.71	686,262,496	250,645,332	435,617,164	63.5
Arab States	49.8	63.0	35.9	0.57	43,912,957	16,585,319	27,327,638	62.2
Central and Eastern Europe	95.8	97.8	93.2	0.95	11,437,907	2,491,825	8,946,092	78.2
Central Asia	98.3	99.2	97.2	0.98	584,713	122,639	462,074	79.0
East Asia and the Pacific	77.3	86.2	68.1	0.79	207,810,661	63,571,952	144,239,409	69.4
East Asia	77.0	86.1	67.7	0.79	206,851,708	63,155,483	143,696,124	69.5
The Pacific	93.9	94.6	93.2	0.99	959,833	416,414	543,423	56.6
Latin America and the Caribbean	84.9	86.6	83.3	0.96	30,938,793	13,310,509	17,628,284	57.0
Caribbean	67.4	67.9	67.0	0.99	1,784,911	833,343	951,568	53.3
Latin America	85.4	87.1	83.8	0.96	29,153,872	12,477,237	16,676,735	57.2
North America and Western Europe	98.7	99.0	98.4	0.99	5,942,750	2,132,769	3,809,980	64.1
South and West Asia	41.8	55.1	27.4	0.50	302,806,744	119,556,691	183,251,052	60.5
Sub-Saharan Africa	48.4	59.3	38.1	0.64	94,624,630	36,222,404	58,401,726	61.7
<b>E9 COUNTRIES</b>	<b>60.1</b>	<b>71.6</b>	<b>48.0</b>	<b>0.67</b>	<b>518,187,575</b>	<b>187,332,573</b>	<b>330,856,001</b>	<b>63.9</b>



<b>MDG REGIONS</b>								
<b>World</b>	<b>73.7</b>	<b>80.6</b>	<b>66.8</b>	<b>0.83</b>	<b>698,232,838</b>	<b>254,049,439</b>	<b>444,183,398</b>	<b>63.6</b>
Developed countries	98.8	99.1	98.3	0.99	8,529,837	2,904,265	5,625,572	66.0
Developing countries	62.8	73.1	52.3	0.72	686,436,939	250,701,503	435,735,435	63.5
Northern Africa	39.5	53.4	25.6	0.48	27,460,978	10,381,102	17,079,875	62.2
Sub-Saharan Africa	48.6	59.6	38.3	0.64	99,835,526	38,181,363	61,653,763	61.8
Latin America and the Caribbean	84.9	86.6	83.3	0.96	30,938,793	13,310,509	17,628,284	57.0
Eastern Asia	72.6	83.8	60.8	0.73	171,579,821	51,952,713	119,627,208	69.7
South Asia	41.8	55.1	27.4	0.50	302,806,744	119,556,691	183,251,052	60.5
South-Eastern Asia	81.9	88.6	75.9	0.86	34,739,772	10,956,846	23,782,925	68.5
Western Asia	69.5	81.0	56.9	0.70	18,141,550	5,956,798	12,184,672	67.2
Oceania	60.9	67.6	53.8	0.80	933,616	405,374	528,243	56.6
Eurasia CIS	98.0	99.4	97.0	0.98	3,266,752	443,950	2,822,801	86.4
Asia CIS	98.3	99.3	97.4	0.98	564,197	116,101	448,096	79.4
Europe CIS	98.1	99.5	96.9	0.97	2,702,556	327,849	2,374,707	87.9
Landlocked Developing Countries	53.4	61.1	46.1	0.75	48,331,625	19,391,137	28,940,488	59.9
Least Developed Countries	42.7	53.9	31.9	0.59	115,655,186	45,567,234	70,088,052	60.6
Small Island Developing States	79.5	82.1	77.0	0.94	4,477,737	1,951,602	2,526,135	56.4
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	46.0	58.3	33.3	0.57	398,026,417	154,973,301	243,052,117	61.1
Middle-income countries	78.1	85.3	70.6	0.83	289,567,344	94,897,814	194,669,530	67.2
Lower-middle income (\$826-\$3,255)	74.2	83.2	65.3	0.79	263,487,826	86,376,528	177,110,598	67.2
Upper-middle income (\$3,256-\$10,065)	91.4	93.6	88.4	0.94	26,079,618	8,520,936	17,558,732	67.3
Low- and middle-income countries	66.5	75.5	57.4	0.76	687,592,762	249,871,115	437,721,647	63.7
East Asia and the Pacific	73.8	84.1	63.0	0.75	206,582,632	63,143,967	143,438,364	69.4
Europe and Central Asia	96.1	97.9	93.6	0.96	11,995,530	2,605,386	9,390,164	78.3
Latin America and the Caribbean	84.9	86.6	83.3	0.96	30,926,242	13,304,199	17,622,143	57.0
Middle East and North Africa	48.9	61.8	36.0	0.58	45,257,029	16,920,937	28,336,092	62.6
South Asia	41.2	54.6	26.6	0.49	293,082,165	115,743,031	177,338,134	60.5
Sub-Saharan Africa	48.7	59.6	38.3	0.64	99,750,764	38,153,215	61,597,049	61.8
High-income countries (\$10,066+)	98.3	98.6	97.9	0.99	10,640,076	4,178,344	6,461,762	60.7
High-income OECD	98.8	99.1	98.6	0.99	6,756,378	2,455,791	4,300,588	63.7
Other high income	81.6	85.8	76.1	0.89	3,883,728	1,722,554	2,161,174	55.7

Table I.10 Mature adult (25 years and older) literacy rate and number of illiterates by sex and region, 2000

Region	2000							
	Mature adults (25+) literacy rate				Mature adults (25+) number of illiterates			
	Total	Male	Female	GPI	Total	Male	Female	% Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>80.7</b>	<b>86.3</b>	<b>75.1</b>	<b>0.87</b>	<b>638,448,855</b>	<b>224,219,749</b>	<b>414,229,106</b>	<b>64.9</b>
Africa	54.8	66.8	43.5	0.65	143,815,799	51,835,810	91,979,989	64.0
Americas	92.7	93.4	92.0	0.99	35,842,422	15,646,679	20,195,742	56.4
North America	95.4	96.0	94.8	0.99	13,894,381	5,795,984	8,098,398	58.3
South America	88.4	89.2	87.6	0.98	21,948,040	9,850,696	12,097,346	55.1
Asia	77.0	84.5	69.5	0.82	451,962,681	154,463,930	297,498,753	65.8
Europe	98.9	99.2	98.5	0.99	5,683,909	1,789,474	3,894,435	68.5
Oceania	93.9	94.8	93.1	0.98	1,144,043	483,856	660,186	57.7
<b>EFA REGIONS</b>								
<b>World</b>	<b>80.7</b>	<b>86.3</b>	<b>75.2</b>	<b>0.87</b>	<b>638,225,292</b>	<b>224,154,318</b>	<b>414,070,974</b>	<b>64.9</b>
Developed countries	98.9	99.2	98.7	1.00	7,400,437	2,720,471	4,679,967	63.2
Countries in transition	99.3	99.7	99.0	0.99	1,192,994	250,926	942,067	79.0
Developing countries	74.0	81.8	66.3	0.81	629,631,859	221,182,921	408,448,939	64.9
Arab States	63.6	76.0	50.2	0.66	47,659,086	15,963,476	31,695,610	66.5
Central and Eastern Europe	96.8	98.6	95.3	0.97	8,091,256	1,641,713	6,449,543	79.7
Central Asia	99.0	99.6	98.8	0.99	332,957	80,063	252,894	76.0
East Asia and the Pacific	90.0	94.2	85.7	0.91	118,821,615	34,125,132	84,696,483	71.3
East Asia	90.0	94.3	85.7	0.91	117,620,345	33,622,228	83,998,116	71.4
The Pacific	93.7	94.6	92.9	0.98	1,201,270	502,904	698,366	58.1
Latin America and the Caribbean	87.6	88.8	86.6	0.98	34,083,625	14,893,685	19,189,940	56.3
Caribbean	67.4	67.9	67.1	0.99	2,152,138	1,009,974	1,142,163	53.1
Latin America	88.1	89.3	87.2	0.98	31,931,487	13,883,710	18,047,777	56.5
North America and Western Europe	98.9	99.1	98.7	1.00	5,307,843	2,012,877	3,294,966	62.1
South and West Asia	53.4	66.7	39.5	0.59	314,982,011	115,161,678	199,820,333	63.4
Sub-Saharan Africa	53.3	64.8	42.8	0.66	108,946,897	40,275,693	68,671,204	63.0
<b>E9 COUNTRIES</b>	<b>74.3</b>	<b>82.4</b>	<b>66.1</b>	<b>0.80</b>	<b>441,368,338</b>	<b>152,594,533</b>	<b>288,773,805</b>	<b>65.4</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>80.7</b>	<b>86.3</b>	<b>75.1</b>	<b>0.87</b>	<b>638,448,855</b>	<b>224,219,749</b>	<b>414,229,106</b>	<b>64.9</b>
Developed countries	98.9	99.2	98.7	1.00	7,400,437	2,720,471	4,679,967	63.2
Developing countries	74.2	81.9	66.3	0.81	629,855,423	221,248,352	408,607,072	64.9
Northern Africa	60.4	74.2	46.6	0.63	28,131,976	9,012,423	19,119,552	68.0
Sub-Saharan Africa	53.3	64.7	42.6	0.66	115,683,824	42,823,387	72,860,436	63.0
Latin America and the Caribbean	87.6	88.8	86.6	0.98	34,083,625	14,893,685	19,189,940	56.3
Eastern Asia	89.4	94.4	84.5	0.89	85,448,258	23,176,596	62,271,662	72.9
South Asia	53.4	66.7	39.5	0.59	314,982,011	115,161,678	199,820,333	63.4
South-Eastern Asia	88.0	92.2	84.2	0.91	31,665,441	10,193,916	21,471,525	67.8
Western Asia	78.4	87.9	68.2	0.78	18,746,577	5,515,481	13,231,096	70.6
Oceania	60.6	67.4	53.6	0.79	1,113,711	471,186	642,525	57.7
Eurasia CIS	99.3	99.7	99.0	0.99	1,192,994	250,926	942,067	79.0
Asia CIS	99.0	99.5	98.8	0.99	308,994	72,151	236,843	76.7
Europe CIS	99.3	99.7	99.1	0.99	883,999	178,775	705,224	79.8
Landlocked Developing Countries	57.2	66.0	49.0	0.74	55,792,731	21,433,212	34,359,520	61.6
Least Developed Countries	47.5	58.6	36.8	0.63	137,247,357	53,062,376	84,184,981	61.3
Small Island Developing States	81.0	83.1	79.0	0.95	5,046,295	2,226,278	2,820,018	55.9
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	55.1	67.4	42.5	0.63	428,331,466	156,415,316	271,916,150	63.5
Middle-income countries	88.0	92.2	84.0	0.91	200,138,773	63,853,904	136,284,868	68.1
Lower-middle income (\$826-\$3,255)	86.8	91.5	82.0	0.90	177,030,863	56,033,360	120,997,503	68.4
Upper-middle income (\$3,256-\$10,065)	93.2	95.1	91.5	0.96	23,107,910	7,820,544	15,287,365	66.2
Low- and middle-income countries	76.1	83.2	69.2	0.83	628,470,238	220,269,222	408,201,018	65.0
East Asia and the Pacific	88.8	93.6	83.7	0.89	117,447,398	33,642,972	83,804,426	71.4
Europe and Central Asia	97.1	98.8	95.8	0.97	8,395,086	1,711,687	6,683,399	79.6
Latin America and the Caribbean	87.6	88.8	86.6	0.98	34,068,865	14,886,194	19,182,672	56.3
Middle East and North Africa	65.2	77.3	52.8	0.68	46,249,529	14,910,983	31,338,547	67.8
South Asia	52.2	65.9	38.0	0.58	306,740,233	112,332,241	194,407,992	63.4
Sub-Saharan Africa	53.3	64.7	42.6	0.66	115,569,126	42,785,145	72,783,982	63.0
High-income countries (\$10,066+)	98.5	98.8	98.3	0.99	9,978,616	3,950,527	6,028,089	60.4
High-income OECD	99.1	99.3	98.8	1.00	6,244,975	2,379,983	3,864,992	61.9
Other high income	87.7	90.5	83.8	0.93	3,733,641	1,570,544	2,163,097	57.9

Table I.11 Change in mature adult (25 years and older) literacy rate by sex and region, 1990-2000

Region	Change in mature adult (25+) literacy rate, 1990-2000							
	+/-	% +/-	+/-	% +/-	+/-	% +/-	+/-	% +/-
	Total	Total	Male	Male	Female	Female	GPI	GPI
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>7.0</b>	<b>9.5</b>	<b>5.7</b>	<b>7.0</b>	<b>8.3</b>	<b>12.5</b>	<b>4.21</b>	<b>5.08</b>
Africa	7.9	16.9	8.4	14.3	7.6	21.1	3.65	5.93
Americas	0.9	1.0	0.7	0.7	1.0	1.2	0.41	0.42
North America	0.5	0.5	0.3	0.3	0.6	0.6	0.27	0.28
South America	2.1	2.4	1.7	2.0	2.3	2.7	0.69	0.71
Asia	11.8	18.1	9.0	12.0	15.2	27.9	10.24	14.21
Europe	0.5	0.5	0.2	0.2	1.1	1.1	0.86	0.88
Oceania	0.0	0.0	0.1	0.2	-0.1	-0.1	-0.25	-0.25
<b>EFA REGIONS</b>								
<b>World</b>	<b>7.1</b>	<b>9.6</b>	<b>5.7</b>	<b>7.1</b>	<b>8.4</b>	<b>12.6</b>	<b>4.30</b>	<b>5.19</b>
Developed countries	0.1	0.1	0.1	0.1	0.4	0.4	0.30	0.31
Countries in transition	1.3	1.3	0.3	0.3	2.0	2.1	1.76	1.80
Developing countries	11.2	17.9	8.8	12.0	14.1	27.0	9.57	13.38
Arab States	13.8	27.7	13.0	20.6	14.3	40.0	9.18	16.11
Central and Eastern Europe	1.1	1.1	0.8	0.8	2.2	2.3	1.44	1.51
Central Asia	0.7	0.7	0.3	0.3	1.6	1.6	1.25	1.27
East Asia and the Pacific	12.8	16.5	8.0	9.3	17.6	25.8	11.90	15.06
East Asia	13.0	16.8	8.2	9.5	18.0	26.6	12.22	15.56
The Pacific	-0.2	-0.2	-0.1	-0.1	-0.4	-0.4	-0.36	-0.37
Latin America and the Caribbean	2.7	3.2	2.2	2.5	3.3	3.9	1.34	1.39
Caribbean	0.1	0.1	0.1	0.1	0.1	0.2	0.08	0.08
Latin America	2.7	3.2	2.2	2.5	3.4	4.0	1.46	1.52
North America and Western Europe	0.2	0.2	0.1	0.1	0.3	0.3	0.16	0.16
South and West Asia	11.6	27.8	11.6	21.1	12.1	44.3	9.53	19.19
Sub-Saharan Africa	4.9	10.1	5.4	9.1	4.7	12.3	1.85	2.88
<b>E9 COUNTRIES</b>	<b>14.2</b>	<b>23.6</b>	<b>10.8</b>	<b>15.1</b>	<b>18.1</b>	<b>37.7</b>	<b>13.20</b>	<b>19.71</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>7.0</b>	<b>9.5</b>	<b>5.7</b>	<b>7.0</b>	<b>8.3</b>	<b>12.5</b>	<b>4.21</b>	<b>5.08</b>
Developed countries	0.1	0.1	0.1	0.1	0.4	0.4	0.30	0.31
Developing countries	11.3	18.0	8.9	12.2	14.0	26.8	9.32	13.02
Northern Africa	20.9	52.9	20.8	38.9	20.9	81.6	14.78	30.78
Sub-Saharan Africa	4.6	9.5	5.1	8.6	4.3	11.2	1.57	2.44
Latin America and the Caribbean	2.7	3.2	2.2	2.5	3.3	3.9	1.34	1.39
Eastern Asia	16.8	23.1	10.6	12.7	23.6	38.9	16.88	23.26
South Asia	11.6	27.8	11.6	21.1	12.1	44.3	9.53	19.19
South-Eastern Asia	6.0	7.4	3.6	4.1	8.3	10.9	5.62	6.56
Western Asia	8.9	12.8	6.9	8.5	11.3	19.9	7.39	10.52
Oceania	-0.3	-0.5	-0.2	-0.3	-0.2	-0.4	-0.05	-0.06
Eurasia CIS	1.3	1.3	0.3	0.3	2.0	2.1	1.76	1.80
Asia CIS	0.8	0.8	0.2	0.2	1.4	1.5	1.22	1.24
Europe CIS	1.3	1.3	0.2	0.2	2.2	2.2	1.94	1.99
Landlocked Developing Countries	3.8	7.1	4.8	7.9	2.9	6.2	-1.18	-1.56
Least Developed Countries	4.8	11.2	4.7	8.7	4.9	15.2	3.56	6.01
Small Island Developing States	1.5	1.9	1.1	1.3	2.0	2.6	1.20	1.28
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries ( $\leq$ \$825)	9.0	19.6	9.1	15.6	9.2	27.5	5.85	10.23
Middle-income countries	9.9	12.6	6.9	8.1	13.4	19.0	8.31	10.04
Lower-middle income (\$826-\$3,255)	12.6	16.9	8.4	10.1	16.7	25.6	11.12	14.17
Upper-middle income (\$3,256-\$10,065)	1.8	2.0	1.5	1.6	3.2	3.6	1.90	2.01
Low- and middle-income countries	9.6	14.5	7.7	10.2	11.8	20.6	7.14	9.39
East Asia and the Pacific	15.0	20.3	9.4	11.2	20.7	32.8	14.55	19.42
Europe and Central Asia	1.1	1.1	0.9	0.9	2.1	2.3	1.34	1.40
Latin America and the Caribbean	2.7	3.2	2.2	2.5	3.3	4.0	1.35	1.40
Middle East and North Africa	16.3	33.4	15.5	25.1	16.8	46.7	10.08	17.29
South Asia	11.0	26.6	11.2	20.6	11.4	42.9	9.01	18.50
Sub-Saharan Africa	4.7	9.6	5.1	8.6	4.2	11.1	1.45	2.26
High-income countries (\$10,066+)	0.2	0.2	0.2	0.2	0.4	0.4	0.12	0.12
High-income OECD	0.2	0.2	0.2	0.2	0.3	0.3	0.10	0.10
Other high income	6.1	7.5	4.7	5.5	7.7	10.1	3.88	4.37

Table I.12 Change in mature adult (25 years and older) number of illiterates by sex and region, 1990-2000

Region	Change in mature adult (25+) number of illiterates, 1990-2000							
	+/-	% +/-	+/-	% +/-	+/-	% +/-	+/-	% +/-
	Total	Total	Male	Male	Female	Female	% Female	%Female
<b>UNESCO REGIONS</b>								
<b>World</b>	<b>-59,783,983</b>	<b>-8.6</b>	<b>-29,829,690</b>	<b>-11.7</b>	<b>-29,954,292</b>	<b>-6.7</b>	<b>1.3</b>	<b>2.0</b>
Africa	16,519,695	13.0	3,273,245	6.7	13,246,450	16.8	2.1	3.4
Americas	3,353,207	10.3	1,674,512	12.0	1,678,694	9.1	-0.7	-1.1
North America	1,305,236	10.4	661,286	12.9	643,971	8.6	-0.9	-1.6
South America	2,047,970	10.3	1,013,168	11.5	1,034,705	9.4	-0.5	-0.9
Asia	-76,595,167	-14.5	-34,382,683	-18.2	-42,212,483	-12.4	1.6	2.4
Europe	-3,245,889	-36.4	-461,902	-20.5	-2,783,987	-41.7	-6.3	-8.4
Oceania	184,210	19.2	67,442	16.2	116,763	21.5	1.1	1.9
<b>EFA REGIONS</b>								
<b>World</b>	<b>-59,834,104</b>	<b>-8.6</b>	<b>-29,839,950</b>	<b>-11.8</b>	<b>-29,995,153</b>	<b>-6.8</b>	<b>1.3</b>	<b>2.0</b>
Developed countries	-1,129,400	-13.2	-183,794	-6.3	-945,605	-16.8	-2.7	-4.1
Countries in transition	-2,073,758	-63.5	-193,024	-43.5	-1,880,734	-66.6	-7.4	-8.6
Developing countries	-56,630,637	-8.3	-29,462,411	-11.8	-27,168,225	-6.2	1.4	2.2
Arab States	3,746,129	8.5	-621,843	-3.8	4,367,972	16.0	4.3	6.9
Central and Eastern Europe	-3,346,651	-29.3	-850,112	-34.1	-2,496,549	-27.9	1.5	1.9
Central Asia	-251,756	-43.1	-42,576	-34.7	-209,180	-45.3	-3.1	-3.9
East Asia and the Pacific	-88,989,046	-42.8	-29,446,820	-46.3	-59,542,926	-41.3	1.9	2.7
East Asia	-89,231,363	-43.1	-29,533,255	-46.8	-59,698,008	-41.5	2.0	2.8
The Pacific	241,437	25.2	86,490	20.8	154,943	28.5	1.5	2.7
Latin America and the Caribbean	3,144,832	10.2	1,583,176	11.9	1,561,656	8.9	-0.7	-1.2
Caribbean	367,227	20.6	176,631	21.2	190,595	20.0	-0.2	-0.5
Latin America	2,777,615	9.5	1,406,473	11.3	1,371,042	8.2	-0.7	-1.2
North America and Western Europe	-634,907	-10.7	-119,892	-5.6	-515,014	-13.5	-2.0	-3.2
South and West Asia	12,175,267	4.0	-4,395,013	-3.7	16,569,281	9.0	2.9	4.8
Sub-Saharan Africa	14,322,267	15.1	4,053,289	11.2	10,269,478	17.6	1.3	2.1
<b>E9 COUNTRIES</b>	<b>-76,819,237</b>	<b>-14.8</b>	<b>-34,738,041</b>	<b>-18.5</b>	<b>-42,082,196</b>	<b>-12.7</b>	<b>1.6</b>	<b>2.5</b>

<b>MDG REGIONS</b>								
<b>World</b>	<b>-59,783,983</b>	<b>-8.6</b>	<b>-29,829,690</b>	<b>-11.7</b>	<b>-29,954,292</b>	<b>-6.7</b>	<b>1.3</b>	<b>2.0</b>
Developed countries	-1,129,400	-13.2	-183,794	-6.3	-945,605	-16.8	-2.7	-4.1
Developing countries	-56,581,516	-8.2	-29,453,151	-11.8	-27,128,363	-6.2	1.4	2.2
Northern Africa	670,998	2.4	-1,368,679	-13.2	2,039,677	11.9	5.8	9.3
Sub-Saharan Africa	15,848,298	15.9	4,642,024	12.2	11,206,673	18.2	1.2	2.0
Latin America and the Caribbean	3,144,832	10.2	1,583,176	11.9	1,561,656	8.9	-0.7	-1.2
Eastern Asia	-86,131,563	-50.2	-28,776,117	-55.4	-57,355,546	-48.0	3.2	4.5
South Asia	12,175,267	4.0	-4,395,013	-3.7	16,569,281	9.0	2.9	4.8
South-Eastern Asia	-3,074,331	-8.9	-762,930	-7.0	-2,311,400	-9.7	-0.7	-1.0
Western Asia	605,027	3.3	-441,317	-7.4	1,046,424	8.6	3.4	5.1
Oceania	180,095	19.3	65,812	16.2	114,282	21.6	1.1	2.0
Eurasia CIS	-2,073,758	-63.5	-193,024	-43.5	-1,880,734	-66.6	-7.4	-8.6
Asia CIS	-255,203	-45.2	-43,950	-37.9	-211,253	-47.1	-2.8	-3.5
Europe CIS	-1,818,557	-67.3	-149,074	-45.5	-1,669,483	-70.3	-8.1	-9.2
Landlocked Developing Countries	7,461,106	15.4	2,042,075	10.5	5,419,032	18.7	1.7	2.9
Least Developed Countries	21,592,171	18.7	7,495,142	16.5	14,096,929	20.1	0.7	1.2
Small Island Developing States	568,558	12.7	274,676	14.1	293,883	11.6	-0.5	-0.9
<b>WORLD BANK INCOME REGIONS</b>								
Low-income countries (≤ \$825)	30,305,049	7.6	1,442,015	0.9	28,864,033	11.9	2.4	4.0
Middle-income countries	-89,428,571	-30.9	-31,043,910	-32.7	-58,384,662	-30.0	0.9	1.3
Lower-middle income (\$826-\$3,255)	-86,456,963	-32.8	-30,343,168	-35.1	-56,113,095	-31.7	1.1	1.7
Upper-middle income (\$3,256-\$10,065)	-2,971,708	-11.4	-700,392	-8.2	-2,271,367	-12.9	-1.2	-1.7
Low- and middle-income countries	-59,122,524	-8.6	-29,601,894	-11.9	-29,520,630	-6.7	1.3	2.0
East Asia and the Pacific	-89,135,234	-43.2	-29,500,995	-46.7	-59,633,938	-41.6	1.9	2.8
Europe and Central Asia	-3,600,444	-30.0	-893,699	-34.3	-2,706,765	-28.8	1.3	1.7
Latin America and the Caribbean	3,142,623	10.2	1,581,995	11.9	1,560,529	8.9	-0.7	-1.2
Middle East and North Africa	992,500	2.2	-2,009,954	-11.9	3,002,455	10.6	5.2	8.2
South Asia	13,658,068	4.7	-3,410,790	-3.0	17,069,858	9.6	2.9	4.7
Sub-Saharan Africa	15,818,362	15.9	4,631,930	12.1	11,186,933	18.2	1.2	2.0
High-income countries (\$10,066+)	-661,460	-6.2	-227,817	-5.5	-433,673	-6.7	-0.3	-0.5
High-income OECD	-511,403	-7.6	-75,808	-3.1	-435,596	-10.1	-1.8	-2.8
Other high income	-150,087	-3.9	-152,010	-8.8	1,923	0.1	2.3	4.1

## Appendix II

### List of regions

#### MDG regional classification

##### **Developed regions**

Albania; Andorra; Australia; Austria; Belgium; Bermuda; Bosnia and Herzegovina; Bulgaria; Canada; Channel Islands; Croatia; Czech Republic; Denmark; Estonia; Faeroe Islands; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Isle of Man; Italy; Japan; Latvia; Liechtenstein; Lithuania; Luxembourg; Malta; Monaco; Netherlands; New Zealand; Norway; Poland; Portugal; Romania; San Marino; Serbia and Montenegro; Slovakia; Slovenia; Spain; Sweden; Switzerland; The former Yugoslav Republic of Macedonia; United Kingdom; United States

##### **Eurasia countries in CIS**

**European countries in CIS:** Belarus; Republic of Moldova; Russian Federation; Ukraine

**Asian countries in CIS:** Armenia; Azerbaijan; Georgia; Kazakhstan; Kyrgyzstan; Tajikistan; Turkmenistan; Uzbekistan

##### **Developing regions**

**Northern Africa:** Algeria; Egypt; Libyan Arab Jamahiriya; Morocco; Tunisia; Western Sahara

**Sub-Saharan Africa:** Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo; Côte d'Ivoire; Democratic Republic of the Congo; Djibouti; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mauritius; Mayotte; Mozambique; Namibia; Niger; Nigeria; Réunion; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Sudan; Swaziland; Togo; Uganda; United Republic of Tanzania; Zambia; Zimbabwe

**Latin America and the Caribbean:** Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bolivia; Brazil; British Virgin Islands; Cayman Islands; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Falkland Islands (Malvinas); French Guyana; Grenada; Guadeloupe; Guatemala; Guyana; Haiti; Honduras; Jamaica; Martinique; Mexico; Montserrat; Netherlands Antilles; Nicaragua; Panama; Paraguay; Peru; Puerto Rico; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; Turks and Caicos Islands; Uruguay; U.S. Virgin Islands; Venezuela

**Eastern Asia:** China, Hong Kong SAR of China; Macao SAR of China; Korea, Democratic People's Republic of; Korea, Republic of; Mongolia

**South Asia:** Afghanistan; Bangladesh; Bhutan; India; Iran (Islamic Republic of); Maldives; Nepal; Pakistan; Sri Lanka

**South-eastern Asia:** Brunei Darussalam; Cambodia; Indonesia; Lao People's Dem Republic; Malaysia; Myanmar; Philippines; Singapore; Thailand; Timor-Leste; Viet Nam

**Western Asia:** Bahrain; Cyprus; Iraq; Israel; Jordan; Kuwait; Lebanon; Palestinian Autonomous Territories; Oman; Qatar; Saudi Arabia; Syrian Arab Republic; Turkey; United Arab Emirates; Yemen

**Oceania:** American Samoa; Cook Islands; Fiji; French Polynesia; Guam; Kiribati; Marshall Islands; Micronesia (Fed States of); Nauru; Niue; New Caledonia; Northern Mariana Islands; Palau; Papua New Guinea; Samoa; Solomon Islands; Tokelau; Tonga; Tuvalu; Vanuatu



**Landlocked developing countries (LLDCs):** Afghanistan; Armenia; Azerbaijan; Bhutan; Bolivia; Botswana; Burkina Faso; Burundi; Central African Republic; Chad; Ethiopia; Kazakhstan; Kyrgyzstan; Lao People's Dem Republic; Lesotho; Malawi; Mali; Mongolia; Nepal; Niger; Paraguay; Rwanda; Swaziland; Tajikistan; The former Yugoslav Republic of Macedonia; Turkmenistan; Uganda; Uzbekistan; Zambia; Zimbabwe

**Least developed countries (LDCs):** Afghanistan; Angola; Bangladesh; Benin; Bhutan; Burkina Faso; Burundi; Cambodia; Cape Verde; Central African Republic; Chad; Comoros; Democratic Republic of the Congo; Djibouti; Equatorial Guinea; Eritrea; Ethiopia; Gambia; Guinea; Guinea Bissau; Haiti; Kiribati; Lao People's Democratic Republic; Lesotho; Liberia; Madagascar; Malawi; Maldives; Mali; Mauritania; Mozambique; Myanmar; Nepal; Niger; Rwanda; Samoa; Sao Tome and Principe; Senegal; Sierra Leone; Solomon Islands; Somalia; Sudan; Timor-Leste; Togo; Tuvalu; Uganda; United Republic of Tanzania; Vanuatu; Yemen; Zambia

**Small island developing states (SIDS):** Antigua and Barbuda; Aruba; Bahamas; Bahrain; Barbados; Belize; Cape Verde; Comoros; Cook Islands; Cuba; Cyprus; Dominica; Dominican Republic; Fiji; Grenada; Guinea-Bissau; Guyana; Haiti; Jamaica; Kiribati; Maldives; Malta; Marshall Islands; Mauritius; Micronesia (Federated States of); Nauru; Netherlands Antilles; Niue; Palau; Papua New Guinea; Saint Kitts and Nevis; Saint Lucia; Samoa; Sao Tome and Principe; Seychelles; Singapore; Solomon Islands; Saint Vincent and the Grenadines; Suriname; Timor-Leste; Tokelau; Tonga; Trinidad and Tobago; Tuvalu; U.S. Virgin Islands; Vanuatu

## **EFA regions**

### **Arab States (20 countries or territories)**

Algeria; Bahrain; Djibouti; Egypt; Iraq; Jordan; Kuwait; Lebanon; Libyan Arab Jamahiriya; Mauritania; Morocco; Oman; Palestinian Autonomous Territories; Qatar; Saudi Arabia; Sudan; Syrian Arab Republic; Tunisia; United Arab Emirates; Yemen

### **Central and Eastern Europe (21 countries or territories)**

Albania; Belarus; Bosnia and Herzegovina; Bulgaria; Croatia; Czech Republic; Estonia; Hungary; Latvia; Lithuania; Montenegro; Poland; Republic of Moldova; Romania; Russian Federation; Serbia; Slovakia; Slovenia; The former Yugoslav Rep. of Macedonia; Turkey; Ukraine

### **Central Asia (9 countries or territories)**

Armenia; Azerbaijan; Georgia; Kazakhstan; Kyrgyzstan; Mongolia; Tajikistan; Turkmenistan; Uzbekistan

### **East Asia and the Pacific (33 countries or territories)**

Australia; Brunei Darussalam; Cambodia; China; Cook Islands; Democratic People's Republic of Korea; Fiji; Indonesia; Japan; Kiribati; Lao People's Democratic Republic; Macao, China; Malaysia; Marshall Islands; Micronesia (Federated States of); Myanmar; Nauru; New Zealand; Niue; Palau; Papua New Guinea; Philippines; Republic of Korea; Samoa; Singapore; Solomon Islands; Thailand; Timor-Leste; Tokelau; Tonga; Tuvalu; Vanuatu; Viet Nam

### **Latin America and the Caribbean (41 countries or territories)**

Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bermuda; Bolivia; Brazil; British Virgin Islands; Cayman Islands; Chile; Colombia; Costa Rica; Cuba; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Montserrat; Netherlands Antilles; Nicaragua; Panama; Paraguay; Peru; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Suriname; Trinidad and Tobago; Turks and Caicos Islands; Uruguay; Venezuela

**North America and Western Europe (26 countries or territories)**

Andorra; Austria; Belgium; Canada; Cyprus; Denmark; Finland; France; Germany; Greece; Iceland; Ireland; Israel; Italy; Luxembourg; Malta; Monaco; Netherlands; Norway; Portugal; San Marino; Spain; Sweden; Switzerland; United Kingdom; United States

**South and West Asia (9 countries or territories)**

Afghanistan; Bangladesh; Bhutan; India; Iran, Islamic Republic of; Maldives; Nepal; Pakistan; Sri Lanka

**Sub-Saharan Africa (45 countries or territories)**

Angola; Benin; Botswana; Burkina Faso; Burundi; Cameroon; Cape Verde; Central African Republic; Chad; Comoros; Congo; Côte d'Ivoire; Democratic Republic of the Congo; Equatorial Guinea; Eritrea; Ethiopia; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Kenya; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Sao Tome and Principe; Senegal; Seychelles; Sierra Leone; Somalia; South Africa; Swaziland; Togo; Uganda; United Republic of Tanzania; Zambia; Zimbabwe

Many would argue that literacy is one of the most neglected Education for All (EFA) goals, both in policy and political terms. Several Asian countries have reported spectacular progress since the 1990s. Yet, globally, the numbers and distributions of illiterate adults have hardly changed over the past 50 years primarily because of population growth. Some 774 million adults – about one-fifth of the world's population – are unable to read and write. In sub-Saharan Africa, there are now more illiterate adults than there were in 1990.

The UNESCO Institute for Statistics (UIS) is responsible for monitoring literacy and its contribution to international development goals. This report traces the paradigm shifts in the understanding and measurement of literacy. It analyses the international situation based on conventional statistics, while explaining changes in UIS methodologies and measures. For researchers and practitioners in international development, it serves as a practical guide on the interpretation of current literacy data. It also highlights emerging statistical issues and methodologies, including the use of assessment data produced through initiatives such as the Literacy Assessment and Monitoring Programme (LAMP).



**UNESCO Institute for Statistics**  
P.O. Box 6128, Succursale Centre-Ville  
Montreal, Quebec H3C 3J7  
Canada  
<http://www.uis.unesco.org>



The UNESCO Institute for Statistics (UIS) is the statistical office of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and is the UN depository for internationally comparable statistics in the fields of education, science and technology, and culture and communication.