

5. Educational attainment and illiteracy indicator (KILM 14)

KILM 14. Educational attainment and illiteracy

Introduction

KILM 14 reflects the levels and distribution of the knowledge and skills base of the labour force. The indicator includes two measures pertaining to educational level of the labour force, and a third measure estimating illiteracy in the adult population. The indicator covers the educational attainment of both women and men in the entire labour force, as well as focusing on the proportion of young workers (age 25 to 29 years) having completed tertiary education.

Table 14a shows the distribution of the educational attainment of the labour force aged 15 years and above for 104 economies. Table 14b, showing the labour force aged 25 to 29 years with completed tertiary education, provides an additional perspective on the possibilities for further development of educational capital. Table 14b covers 63 economies. Table 14c presents information on adult illiteracy rates – the percentage of the adult population that is illiterate –for 165 economies. There is extensive coverage of this indicator for economies among all regions, with the exception of the developed (industrialized) economies, for which information is available for only seven economies.

Use of the indicator

In all economies human resources represent, directly or indirectly, the most valuable and productive resource: economies traditionally depend on the health, strength and basic skills of their workers to produce goods and services for consumption and trade. The population's predisposition to acquire skills can be enhanced by experience, informal and formal education, and training. However, the advance of complex organizations and knowledge requirements, as well as the introduction of sophisticated machinery and technology, means that economic growth and improvements in welfare increasingly depend on the degree of literacy and educational attainment of the total population.

Although the natural endowments of labour power remain relevant, continuing economic and technological change means that the bulk of labour capacity is now acquired, not only through initial education and training, but increasingly through adult education and enterprise or individual worker training, within the perspective of lifelong learning and career management. Unfortunately, quantitative data on lifelong learning, and indicators that monitor developments in the acquisition of knowledge and skills beyond formal education, are sparse. Statistics on levels of educational attainment, therefore, remain the best available indicators of labour force skill levels to date.¹ These are important determinants of an economy's capacity to compete successfully in world markets and to make efficient use of rapid technological advances; they also affect the employability of workers.

¹ The Employment Sector of the International Labour Office is currently in the second phase of a feasibility study on developing new indicators of workforce skills for inclusion in KILM. Fourteen countries have so far provided data on either participation or expenditure in training. We will continue to investigate other data sources with the aim of adding an indicator on training in the next edition of KILM.

The ability to examine educational levels in relation to occupation and income is also useful for policy formulation, as well as for a wide range of economic, social and labour market analyses. Statistics on levels and trends in educational attainment of labour forces can: (a) provide an indication of the capacity of economies to achieve important social and economic goals; (b) give insights into the broad skill structure of the labour force; (c) highlight the need to promote investments in education for different population groups; (d) support analysis of the influence of skill levels on economic outcomes and the success of different policies in raising the educational level of the workforce; (e) give an indication of the degree of inequality in the distribution of education resources between groups of the population, particularly between men and women, and within and between economies; and (f) provide an indication of the skills of the existing labour force, with a view to discovering untapped potential.

Growing wage disparity between low-skilled and high-skilled workers in many economies provides strong evidence of increasing returns on education. The distribution of educational attainment can play a significant role in determining an economy's income distribution. A highly unequal distribution of educational attainment could lead to an increasingly unequal income distribution within a economy, while a more equal distribution of educational attainment can work towards a significant reduction in household income disparities. A more balanced distribution of educational attainment across the primary, secondary and tertiary levels also allows for greater flexibility in adopting new technologies and increases the ability to compete in the world economy across a broader range of industries.

While not a labour market indicator in itself, the illiteracy rate of the population may be a useful proxy for basic educational attainment in the potential labour force. The availability of multiple-year observations also provides an indication of progress in this area. Literacy and numeracy are increasingly considered to be the basic minimal skills necessary for entry into the labour market. The lack of up-to-date information on literacy for most industrialized economies is unfortunate, in the light of recent concerns about “functional literacy” – that is, the ability to understand the written instructions and official forms necessary to participate in and benefit from these societies.

Definitions and sources

Educational attainment

The seven categories of educational attainment used in KILM 14 are conceptually based on the ten levels of the International Standard Classification of Education (ISCED). ISCED was designed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in the early 1970s to serve as an instrument suitable for assembling, compiling and presenting comparable indicators and statistics of education, both within economies and internationally. The original version of ISCED (ISCED-76) classified educational programmes by their content along two main axes: levels of education and fields of education. The cross-classification variables were maintained in the revised ISCED-97; however, the rules and criteria for allocating programmes to a level of education were clarified and tightened, and the fields of education were

further elaborated.² Most economies continue to classify education levels according to the levels of ISCED-76, but economies are gradually beginning to progress to the nine levels and ten subcategories of ISCED-97 and a few economies are classified as such in tables 14a and 14b. Both ISCED revisions are shown in Appendix D.

The major attainment levels in KILM 14 are primary, secondary and tertiary education. “Primary education” aims to provide the basic elements of education (for example, at elementary or primary school and lower secondary school) and corresponds to ISCED levels 1 and 2. Curricula are designed to give students a sound basic education in reading, writing and arithmetic, along with an elementary understanding of other subjects such as history, geography, natural science, social science, art, music and, in some cases, religious instruction. Some vocational programmes, often associated with relatively unskilled jobs, as well as apprenticeship programmes that require further education, are also included. Students generally begin primary education between the age of 5 and 7 years and end at 13 to 15 years. Literacy programmes for adults, similar in content to programmes in primary education, are also classified under primary education.

Secondary education is provided at high schools, teacher-training schools at this level, and schools of a vocational or technical nature. General education continues to be an important constituent of the curricula, but separate subject presentation and more specialization are also found. Secondary education consists of ISCED levels 3 (designated “upper secondary education”) and 4 (designated “post-secondary non-tertiary education”), and students generally begin between 13 and 15 years of age and finish between 17 and 18 years of age.

Tertiary education is provided at universities, teacher-training colleges, higher professional schools and sometimes distance-learning institutions. It requires, as a minimum condition of admission, the successful completion of education at the secondary level or evidence of the attainment of an equivalent level of knowledge. It corresponds to ISCED levels 5 6 and 7.

In addition to primary, secondary and tertiary education, KILM 14 also covers three other categories of educational attainment that correspond to ISCED levels: less than one year of schooling (ISCED level X); less than primary (ISCED level 0); and education not defined by level (ISCED level 9).

The statistics on educational attainment were obtained from the ILO’s *Yearbook of Labour Statistics*, *Bulletin of Labour Statistics* and the Caribbean Labour Statistics Dataset.³ In addition, for some economies, other databases provided information on educational attainment. These included the database of the Organisation for Economic Co-operation and Development’s Centre for Co-operation with Non-Members (OECD-CCNM) and the ILO’s Labour Market Indicators

² For further details about ISCED see UNESCO: *International Standard Classification of Education/ISCED 1997* (Paris, 1998); website: <http://uis.unesco.org>. The document can be downloaded at: http://portal.unesco.org/uis/TEMPLATE/pdf/isced/ISCED_A.pdf.

³ For more information on these ILO publications and databases, see websites: <http://www.ilo.org/stat> and <http://www.ilocarib.org.tt/>.

Library. Information on educational attainment is typically collected through household surveys, “official estimates” and population censuses conducted by national statistical services.⁴

Illiteracy rates

Literacy is defined as the skills to read and write a simple sentence on everyday life; hence, the semi-literate – those who can read but not write – are sometimes included in the definition as well. Persons for whom the level of literacy is not known are excluded from the calculation of illiteracy rates. The source of information for illiteracy rates is UNESCO’s Institute for Statistics.⁵ Estimates are based on data collected during national population censuses and household surveys. They provide basic information on the number and percentage of adults (15 years and older) who are illiterate.

Limitations to comparability

A number of factors can limit the appropriateness of using the indicator for comparisons of statistics on education between economies or over time. First, it should be noted that any of the limitations to the comparability of statistics relating to indicators based on labour force apply here as well. The discussion in the corresponding section of KILM 1 (labour force participation rates) should be read for additional details on the caveats relating to comparability.

In addition to the differences associated with varying information sources, how individuals in the labour force are assigned to educational levels can also severely limit the feasibility of cross-country comparisons. Many economies have difficulty establishing links between their national classification and ISCED, especially with respect to technical or professional training programmes, short-term programmes and adult-oriented programmes (ranging around levels 3 and 5 of ISCED-76 and levels 3, 4 and 5 of ISCED-97). In numerous situations, ISCED classifications are not strictly adhered to; an economy may choose to include level 3 (secondary) with levels 5, 6 and 7 (tertiary) – e.g. Botswana – or levels 1 or 2 (primary) may include levels 0 (less than one year) and 1 (less than primary) – e.g. United Kingdom. It should also be noted that ISCED levels 2 and 3 are combined in some economies to reflect their education systems’ standards. As a result, comparisons between economies in regard to educational attainment in categories 2 and 3 should be made with great care, and statements of comparison should include notes of the differences.

An issue that affects several economies in the major Europe subgroup originates from the way in which those who have received their highest level of education in apprenticeship systems are classified. The classification of apprenticeship in the “secondary” level – despite the fact that this involves one or more years of study and training beyond the conventional length of secondary schooling in other economies – can lower the reported proportion of the labour force or population with tertiary education, compared with economies where the vocational training is

⁴ Additional documentation regarding national practices in the collection of statistics is provided in ILO: *Sources and Methods: Labour Statistics, Vol. 3: Economically active population, employment, unemployment and hours of work (household surveys)* (Geneva, 2003); and *Vol. 5: Total and economically active population, employment and unemployment (population censuses)* (Geneva, 2003).

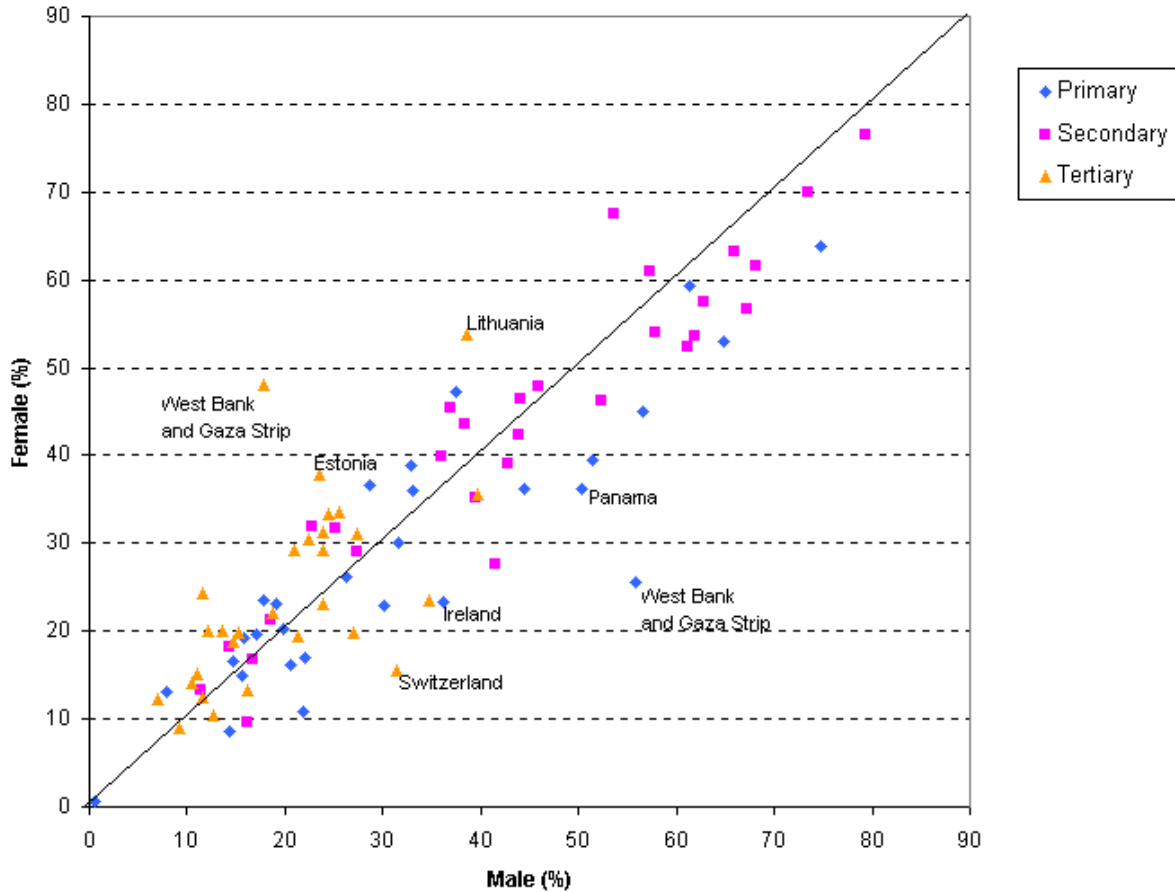
⁵ The UNESCO literacy and illiteracy estimates are available at website: <http://www.uis.unesco.org/>.

organized differently. This classification issue substantially holds down the levels of tertiary education reported by Austria and Germany, for instance, where the participation of young people in the apprenticeship system is widespread.

Limitations to comparability of information on illiteracy rates, as given in table 14c, exist because of deviations from the standard definition of illiteracy – that is, the inability to read and write a simple sentence in everyday life. Different economies have different social and cultural contexts, different definitions and standards of literacy, and different methodologies for collecting and compiling the literacy data, as well as variations in the quality of data collected, and caution is needed in comparing the literacy situations among economies and regions. For example, data from some economies may represent the entire country, whereas others may represent only part of the country. Some economies may identify literate persons by asking a simple question such as “Are you literate or not?”, or “Can you read and write with understanding?”, while other countries may ask more comprehensive questions or administer literacy tests to identify level of literacy.

Trends

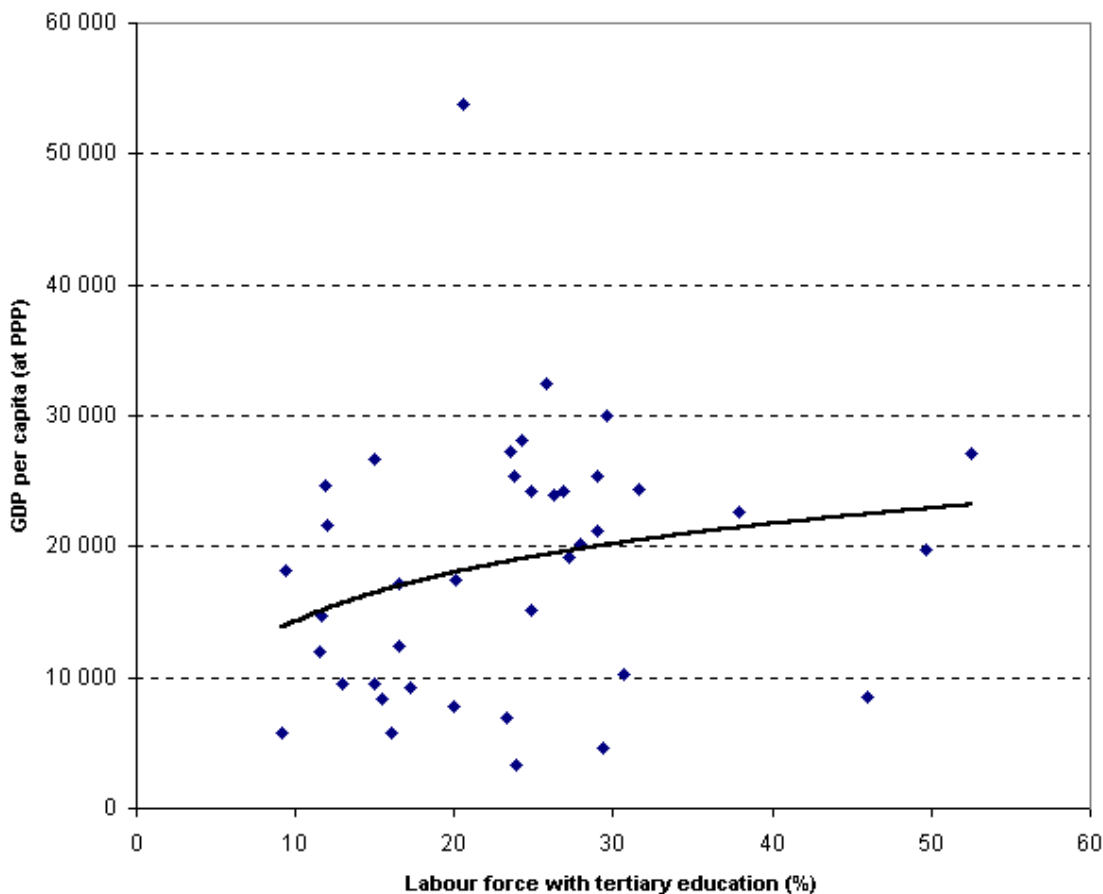
Figure 14a. Distribution of male and female labour force by level of educational attainment, 2001



Note: The diagonal line represents an equal distribution of labour force by educational level for men and women

The data seem to show that the economically active population is no longer biased towards the highly educated male. On the contrary, in most economies (20 of the 29 with comparable data shown in this figure) a higher proportion of the female labour force than the male labour force has attained tertiary education. Men in the labour force were also slightly more likely than women to have attained only primary education, whereas the distribution of persons with secondary education was fairly equal between the sexes. Some of the more dramatic differences between the sexes are labelled in the figure. For example, in the West Bank and Gaza Strip, not only is the female labour force much more likely than the male to have attained a degree of higher education, but the male labour force is much more likely to have attained only primary education. The figure also confirms that, in most economies, the largest share of the labour force, whether male or female, are people with secondary education.

Figure 14b. GDP per capita (at PPP) and the proportion of the labour force with completed tertiary education, 2001



There is a slightly positive relationship between the educational level of a workforce and the national income level, as measured by GDP per capita at PPP, although great variety is still evident.

Figure 14c. Economies with illiteracy rates of 50 per cent or over, 2001

Illiteracy rate, both sexes	Illiteracy rates, males	Illiteracy rates, females			
(%)	(%)	(%)			
Niger	83.5	Niger	75.6	Niger	91.1
Burkina Faso	75.2	Burkina Faso	65.1	Burkina Faso	85.1
Mali	73.6	Mali	63.3	Mali	83.4
Gambia	62.2	Gambia	55.0	Iraq	76.3
Senegal	61.7	Ethiopia	51.9	Benin	75.4
Benin	61.4	Senegal	51.9	Guinea-Bissau	75.3
Guinea-Bissau	60.4	Bangladesh	50.1	Nepal	74.8
Iraq	60.3			Yemen	73.1
Ethiopia	59.7			Senegal	71.3

Bangladesh	59.4	Pakistan	71.2
Mauritania	59.3	Mozambique	70.0
Nepal	57.1	Mauritania	69.3
Pakistan	56.0	Bangladesh	69.2
Chad	55.8	Gambia	69.1
Mozambique	54.8	Ethiopia	67.6
Yemen	52.3	Chad	64.2
Central African Republic	51.8	Central African Republic	63.4
Burundi	50.8	Morocco	62.8
Côte d'Ivoire	50.3	Liberia	61.9
Morocco	50.2	Côte d'Ivoire	61.6
		Burundi	58.0
		Togo	56.0
		Egypt	55.2
		Eritrea	54.4
		India	53.6
		Malawi	52.4
		Sudan	52.3
		Comoros	51.2
		Haiti	51.1

Illiteracy is still a very serious problem for many economies. In 2001, 20 economies had overall illiteracy rates of more than 50 per cent, while 29 economies had illiteracy rates of over 50 per cent among females. With the exceptions of Bangladesh, Nepal and Pakistan from South-central Asia, and Iraq, Morocco and Yemen from North Africa and the Middle East, the economies where the majority of the population is illiterate are in sub-Saharan Africa, and Western Africa in particular.