

# Guide to understanding the KILM

## The history of the KILM

Data needed for monitoring and assessing the current realities of the world at work is essential for any organization, institution or government that advocates labour-related strategies. In recognition of this, the International Labour Office (ILO) launched the Key Indicators of the Labour Market (KILM) programme in 1999 to complement the regular data collection programmes<sup>1</sup> and to

1. The question is often raised concerning the relationship between the KILM and the ILO *Yearbook of Labour Statistics*, which has been the ILO's main source of labour statistics for over 60 years. Since 1921, the ILO Department of Statistics has collected and disseminated labour statistics on the characteristics of the working population and on conditions of work and life throughout the world. Data are published annually in the *Yearbook* and on the Internet at <http://laborsta.ilo.org> (see box 1 for more information). The KILM differs from the *Yearbook* in terms of scope and content: First, whereas the *Yearbook* is the best source of nationally-reported labour statistics, the KILM supplements this information with data from other sources when it is felt that other sources are more accurate or more complete and provide a better scope for international comparability. The latter point leads to the second difference, which is that the KILM, because it is not restricted to using the national data *as reported*, can and does take efforts to report indicator series that are more comparable across time and across countries. The KILM offers three series which are, in fact, "harmonized", meaning they offer a strictly comparable series: labour force participation rates in table 1, employment-to-population ratios in table 2 and the inactivity rate in table 13. Other indicators are not yet strictly comparable, but efforts have been made to select sources and methodologies that provide a series that is as "clean" and comparable as possible, and where anomalies exist in terms of definitions and methodologies, they are listed clearly as such in the table notes. Finally, some indicators are provided in both the *Yearbook* and the KILM; however, the full list of indicators in each is not identical at the moment. For example, labour productivity and time-related underemployment are indicators in the KILM, but not in the *Yearbook*, whereas the *Yearbook* reports data on strikes and lockouts while the KILM does not. However, this will change since the annual database being compiled by the ILO Department of Statistics has included many of these variables in order to get more reported variables from countries and lower the need for imputation. The KILM is also able to publish imputed

improve dissemination of data on the key elements of the world's labour markets.

The KILM was originally designed with two primary objectives in mind: (1) to present a core set of labour market indicators; and (2) to improve the availability of the indicators to monitor new employment trends. The indicators were chosen in a collaborative effort involving the ILO Employment Sector and the Department of Statistics in consultation with experts from ILO field offices, the Organisation for Economic Co-operation and Development (OECD) and several national representatives from Ministries of Labour and national statistical offices. The selection of the indicators was based on the following criteria: (a) conceptual relevance; (b) data availability; and (c) relative comparability across countries and regions. The design and presentation of the core indicators has evolved since the first edition. Two new indicators were added in the second edition (2001-2002) – occupational wages and earning indices (KILM 16) and labour market flows (KILM 19), but were subsequently dropped when updates were no longer made available from the original data sources. The 18 indicators in the latest KILM edition represent a streamlining of content and presentation (see Executive summary for the list of new developments).

## The role of the KILM in labour market analysis

Identifying and quantifying inefficiencies (and best practices) in the labour market – such as labour underutilization and decent work deficits – is the first step in designing employment policies aimed at enhancing the well-being of workers while also promoting economic growth. This broad view of the world of work calls for a comprehensive collection, organization and analysis of labour

estimates and combine them with real data (as reported) to come up with new indicators such as working poverty.

### Box 1. The ILO Department of Statistics

From the outset, statistical activities have formed an integral part of the work of the International Labour Organization, as witnessed by the setting up in 1919 of a Statistical Section for “the collection and distribution of information on all subjects relating to the international adjustment of conditions of industrial life and labour” (Article 396 of the Versailles Treaty of Peace and article 10(1) of the Constitution of the ILO). Over the past 90 years, the ILO has endeavoured to carry out its mandate in the face of an ever-changing world. Formerly a Bureau, now, as from 2009, the ILO has decided to establish a new Department, the ILO Department of Statistics, which has new mandates: it is responsible for enhancing data compilation, increasing support to countries and constituents to produce, collect and use more timely and accurate labour and decent work statistics, coordinating and assessing the quality of the ILO statistical activities, setting international statistical standards (by hosting the International Conference of Labour Statisticians and providing guidelines and support) and enhancing capacity building in labour and decent work statistics.

Within the United Nations system, the ILO Department of Statistics is the focal point for labour statistics. Since the early 1950s, the Department has worked in close collaboration with the statistical departments of other international organizations, including the World Bank, OECD and the European Union and closely relating to national statistical offices worldwide.

The Department of Statistics has to cover a broad range of subjects, relating not just to employment and working conditions, but also to decent work (employment, social protection, rights at work and social dialogue). The link between social and economic policies and labour statistics is such that the Department’s activities and interests at a particular point in time depend to a large extent on the requirements for those policies. As new needs emerge from new orientations in ILO and national programmes and policies, so the Department’s activities evolve.

The ILO *Yearbook of Labour Statistics* was first issued in 1935, and contained time series on employment, unemployment, hours of work, wages, costs of living and retail prices, workers’ family budgets, emigration and immigration, and industrial relations. Its coverage has changed over time to reflect current interests and developments. Topics such as food consumption, social security, occupational injuries, national income, international migration, economically active population, household income and expenditure, labour productivity and labour cost were added. Monthly or quarterly updates of the series published in the *Yearbook* were first issued in the *International Labour Review* and its statistical supplement, and since 1965 in the quarterly *Bulletin of Labour Statistics* and its supplement. The *Bulletin* also contains short articles on statistical practices and methods, and presentations of the results of special projects carried out by the Department of Statistics. Data and metadata from the *Yearbook*, as well as labour statistics from the *Bulletin* and other outputs of the Department of Statistics, are now available online in the LABORSTA database at <http://laborsta.ilo.org>. Its present compilation will evolve to a comprehensive data base, which will be enhanced as from 2012, covering new topics and enhancing the response rates from countries. The active identification of gaps in the information will help the ILO to steer its technical support to countries. Although the hard publication will still be issued, the main focus will be on establishing a coordinated data base which will be closely monitored in order to have the more timely and accurate official figures. Besides, the establishment of a new short-term data in 2010 has enabled the ILO to better monitor the employment situation across countries without having to wait to have the year data, especially during the crisis, helping the ILO in reporting to important fora like the G20 and regional meetings.

Source: Adapted from ILO: “75 years of international labour statistics”, in *Yearbook of Labour Statistics* (Geneva, 1994) and the Department of Statistics website at <http://www.ilo.org/stat>.

market information. In this context, the KILM can serve as a tool in monitoring and assessing many of the pertinent issues related to the functioning of labour markets. The following are some examples of how the KILM can be used to inform policy in key areas of ILO research:

### Promoting the ILO's Decent Work Agenda

The ILO's Decent Work Agenda aims to promote opportunities for women and men to obtain productive work, in conditions of freedom, equity, security and human dignity.<sup>2</sup> As a growing number of governments, employers and workers investigate options for designing policies that adhere to the principles of decent work, it is possible that policy-makers will look for ways of interpreting the term "decent". Applying the concept of "decent" to any form of economic activity is a matter for discussion; for example, personal perceptions of what constitutes a decent wage could differ significantly from person to person. That said, there are certain conditions relating to the world of work that are almost universally accepted as "bad" – working but earning an income that does not lift one above the poverty line or working under conditions where the fundamental principles and rights at work<sup>3</sup> are not respected, for instance.

Keeping in mind that careful empirical research as well as quantitative assessments of the realities of the world of work should precede policy formulation, the KILM, as a collection of a broad range of labour market indicators, can serve as a tool in assessing many of the pertinent questions relating to the ILO's Decent Work Agenda.

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2. Since the publication of the *Report of the Director-General: Decent Work* (Geneva, ILO, 1999), the goal of "decent work" has come to represent the central mandate of the ILO, bringing together standards and fundamental principles and rights at work, employment, social protection and social dialogue in the formulation of policies and programmes aimed at "securing decent work for women and men everywhere".

3. The ILO Declaration on Fundamental Principles and Rights at Work aims to ensure that social progress goes hand in hand with economic progress and development. See <http://www.ilo.org/declaration> for more information.

The KILM helps to identify where labour is underutilized and decent work is lacking, especially if measured not only in terms of people who are working yet still unable to lift themselves and their families above the poverty threshold (working poverty – KILM 18) but also in terms of the quality of work or the lack of any work at all. The lack of any work at all could be identified using unemployment (KILMs 9 and 10) but also more broadly using inactivity (KILM 13). Lack of quality of work could be determined using sets of indicators; for example, by identifying which individuals are in vulnerable employment (using status and sector – KILMs 3 and 4), working excessive hours (KILM 7), in the informal economy (KILM 8), underemployed (KILM 12) or in low-productivity jobs (KILM 17).

### Monitoring progress towards the UN's Millennium Development Goals

The United Nations resolved to make the goals of full and productive employment and decent work for all a central objective of its national and international policies as well as its national development strategies as part of its efforts to achieve the Millennium Development Goals (MDG).<sup>4</sup> Recognizing that decent and productive work for all is central to addressing poverty and hunger, MDG 1 includes a new target 1b (agreed upon in 2008) to "achieve full and decent employment for all, including women and young people". The four indicators selected for monitoring progress toward MDG target 1b are available within the KILM: employment-to-population ratio, the proportion

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4. United Nations: *2005 World Summit Outcome*, High-level Plenary Meeting of the 60th Session of the General Assembly (A/60/L.1), 20 September 2005, para. 47. As part of the Millennium Declaration of the United Nations "to create an environment – at the national and global levels alike – which is conducive to development and the elimination of poverty", the international community has adopted a set of international goals for reducing income poverty and improving human development. A framework of eight goals, 18 targets and 48 indicators to measure progress was adopted by a group of experts from the United Nations Secretariat, ILO, IMF, OECD and the World Bank. The indicators are interrelated and represent a partnership between developed and developing economies. For further information on the Millennium Development Goals, see <http://www.un.org/millenniumgoals/>.

of employed people living below the poverty line (working poverty rate), the proportion of own-account and contributing family workers in total employment (vulnerable employment rate) and the growth rate of labour productivity correspond to KILM indicators 2, 18, 3 and 17, respectively.<sup>5</sup>

### Monitoring equity in the labour market

Women face specific challenges in attaining decent work. The majority of KILM indicators are disaggregated by sex, which allows for comparison of male and female labour market opportunities. Many of the “trends” analyses associated with individual indicators focus on the progress (or lack thereof) towards the goal of equal opportunity and equal treatment in the labour market.<sup>6</sup>

### Assessing employment in a globalizing world

Globalization has the potential of being beneficial to all, but to date the benefits are not reaching enough people. The goal, therefore, is to welcome globalization but in a way that shapes it to encourage creation of decent work opportunities for all.<sup>7</sup> One means of doing so is to make employment a central objective of macroeconomic and social policies. The KILM indicators can be useful in this regard by monitoring employment dynamics associated with globalization. For example, there are studies indicating that job loss/creation as well as changes in wages and productivity (and thus

international competitiveness) are impacted by globalization. If the indicators reflect negative consequences of globalization, one can seek ways of altering macroeconomic policies so as to minimize the costs of adjustment and to distribute the gains of globalization in a more equitable fashion.

### Identifying “best practices”

The KILM can help to identify best practice country examples on a number of issues: where the occupational gender wage gap is non-existent or minimal; where youth do not face disadvantages in terms of access to jobs; where labour productivity and labour compensation are balanced in such a way as to encourage international competitiveness; where economic growth has gone hand in hand with an expansion of employment opportunities; where a country reduces high unemployment; and many others. The key, then, is to identify policies that have led to the positive labour market outcome and to highlight these as possible best practices which could be implemented elsewhere.

### Labour market analyses using multiple KILM indicators

While more and more countries are producing national unemployment and aggregate employment data, users should be cautioned about the limitations of the statistics if used alone and are urged to take a broader view of labour market developments, necessitating a broader range of statistics. The advantage of using aggregate unemployment rates, for example, is their relative ease of collection and comparability for a significant number of countries. But looking at unemployment (or any other labour market indicator) alone ignores other elements of the labour market that are more difficult to quantify. It is important to realize that unemployment is only one aspect of labour force status.

The first step in labour market analysis, therefore, is to determine the breakdown of

5. KILM 6th Edition, Chapter 1, section C offered a demonstration of how to put all four MDG employment indicators together for a basic analysis of progress at the country level. See, also, T. Sparreboom and A. Albee, eds.: *Towards decent work in sub-Saharan Africa: Monitoring MDG employment indicators* (Geneva, ILO, 2011); [http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS\\_157989/lang-en/index.htm](http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_157989/lang-en/index.htm)

6. For a guide on using KILM indicators to assess gender equality, see ILO: *Women in labour markets: Measuring progress and identifying challenges* (Geneva, 2010); [http://www.ilo.org/empelm/pubs/WCMS\\_123835/lang-en/index.htm](http://www.ilo.org/empelm/pubs/WCMS_123835/lang-en/index.htm)

7. World Commission on the Social Dimension of Globalization: *A Fair globalization: Creating opportunities for all* (Geneva, 2004); <http://www.ilo.org/public/english/fairglobalization/index.htm>.

labour force status within the population.<sup>8</sup> The working-age population can be broken down into persons who are inactive (outside of the labour force, KILM 13), employed (KILM 2) or not working and seeking work (unemployed, KILM 9). A large share of the population in either unemployment or inactivity, or both, indicates substantial underutilization of the potential labour force and thus of the economic potential of a country. Governments facing this situation should, if possible, seek to analyse the reasons for inactivity, which in turn could dictate the policy choice necessary to amend the situation.

If the majority of the inactive population is made up of women who are not working because they have household responsibilities, the State might wish to encourage an environment that facilitates female economic participation through, for example, the establishment of day care centres for children or flexible working hours. Alternatively, programmes to promote the employment of the disabled could help to lower the inactivity rate if disability is a common reason for inactivity. It is more difficult to recapture persons who have left the labour market because they are “discouraged”, i.e. because they feel that no suitable work is available, that they do not have the proper qualifications or because they do not know where to look for work, unless perhaps their confidence can be boosted by participation in training programmes and job-search assistance. Regardless, the correct mix of policies can only be designed by looking in detail at the reasons for inactivity.

Unemployment, as well, should be analysed according to sex (KILM 9), age (KILM 10), length (KILM 11) and education level (KILM 14) in order to gain a better understanding of the composition of the jobless population and therefore to target unemployment policies accordingly. Other characteristics of the unemployed not shown in the KILM, such as socio-economic background, work experience, etc., could also

be important to analyse, if available, in order to determine which groups face particular hardships. Paradoxically, low unemployment rates may well disguise substantial poverty in a country (see KILM 18), whereas high unemployment rates can occur in countries with significant economic development and low incidence of poverty. In countries without a safety net of unemployment insurance and welfare benefits, many individuals, despite strong family solidarity, simply cannot afford to be unemployed. Instead, they must eke out a living as best they can, often in the informal economy or in informal work arrangements within the formal economy. In countries with well-developed social protection schemes or when savings or other means of support are available, workers can better afford to take the time to find more desirable jobs. Therefore, the problem in many developing economies is not so much unemployment, but rather the lack of decent and productive work opportunities for those who are employed.

This brings us to the need to dissect the total employment number as well in order to assess the well-being of the working population, under the premise that not all work is “decent work”. If the working population consists largely of self-employed or contributing (unpaid) family workers (see KILM 3), then looking at the indicator on the total employed population (KILM 2) loses its value as a normative measure. Are these people employed? Yes, according to the international definition. Are they in decent employment? Possibly not. Although technically employed, some self-employed workers’ or contributing family workers’ hold on employment is tenuous and the line between employment and unemployment is very thin. If and when salaried jobs open up in the formal economy, this contingent workforce will rush to apply for them. Further assessment should also be undertaken to determine if such workers are generally poor (KILM 18b), engaged in traditional agricultural activities (KILM 4), selling goods in the informal market with no job security (KILM 8), working excessive hours (KILM 7a) or wanting to work more hours (KILM 12).

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8. For a specific country example of how to analyse labour markets using the KILM indicators, see Chapter 1, section C in this edition, as well as Appendix F in the KILM 4th Edition.

In an ideal world an analysis of labour markets using a broad range of indicators such as those available in the KILM would be an easy matter because the data for each indicator would exist for each country. The reality, of course, is quite different. A glance at KILM table E2, which indicates the availability of KILM data for each country, shows that despite recent improvements in national statistics programmes and in the efficiency of collection on the part of the KILM, many holes still exist whereby data are not available.

The coverage of KILM indicators is particularly low in African countries, which is understandable given the low priority that is likely to be placed on conducting labour force survey in countries overrun by poverty and political unrest. The paradox is that this is precisely the region where greater labour market information is needed in order that international donor money as well as national policies can be productively targeted to improving the possibility for the population to “work out of poverty”.<sup>9</sup> Development of national statistical programmes is desperately needed in many developing economies. Therefore, we urge donors to consider aid in statistical capacity building a suitable and important use of funds, and also encourage governments to place priority on the development of statistical programmes.

### KILM organization and coverage

The Statistics Division of the United Nations compiles statistics for approximately 230 countries, areas and territories.<sup>10</sup> For each edition of the KILM, the ILO has made an intensive effort to assemble data on the indicators for as many countries, areas and

territories as possible. Where there is no information for a country, it is usually because the country involved was not in a position to provide information for the indicator. Even when information for an indicator was available, it may not have been sufficiently current or may not have met other qualifications established for inclusion in the KILM.

There are six major KILM groupings, based on a combination of level of development and geography. It is important to note that the groupings developed for the KILM are intended exclusively for analytical convenience and are not intended to express judgement or appraisal as to a given country’s current stage in the development process. There is one developmental grouping – Developed Economies & European Union – and six geographic groupings – Central & South-Eastern Europe (non-EU) & CIS, Asia & the Pacific, Latin America & the Caribbean, the Middle East, North Africa and sub-Saharan Africa. Each country appears in only one major grouping; for example, Japan is included in the Developed Economies grouping and is therefore excluded from Asia & the Pacific. The inside front cover of the printed KILM gives a graphical representation of the organization of the countries by major groupings. All but two major groupings (North Africa and the Middle East) have been divided into smaller subgroups within the tables to facilitate analysis.

Owing to the limitations associated with presenting such a large volume of information in printed form, information in the book is restricted to the years 1980, 1990, 2000, 2005 and/or the latest available subsequent five years. However, in the KILM interactive software and online KILM (KILMnet), indicators are available for all years after, and including, 1980. Because of the time needed for typesetting and printing, the printed version may not be as up to date in terms of yearly coverage as the electronic version. Data in the KILM electronic versions will be updated on a periodic basis.

9. The ILO strongly advocates placing employment at the heart of poverty reduction strategies, noting, in particular, that “it is precisely the world of work that holds the key for solid, progressive and long-lasting eradication of poverty”. ILO: *Working Out of Poverty*, Report of the Director-General, International Labour Conference, 91st Session (Geneva, 2003).

10. “Country or areas, codes and abbreviations”, United Nations Statistics Division; <http://unstats.un.org/unsd/methods/m49/m49alpha.htm>.

If there was no available information for a given country or year at the time this volume was produced, that country or year is not shown in the relevant table. With few exceptions, the indicators are expressed as ratios or percentage changes (for example, labour force participation rates, share of part-time workers in total employment, unemployment rates, inactivity rates, and indices of manufacturing wages). Because of limitations of space, the actual numerators and denominators used to calculate the indicators are not always provided in the printed edition of KILM, but can be found in the KILM electronic versions.

Finally, a note on translations: the International Labour Office makes every effort to provide the KILM in French and Spanish in addition to the original English. These other languages are provided in the KILM electronic versions only. Users of the software are able to select their language – English, French or Spanish – from the file menu, and can switch between languages at any time.

### **Information repositories and methodological information**

In compiling the KILM, the ILO concentrates on bringing together information from international repositories. In other words, the KILM team rarely collects information directly from national sources, but rather takes advantage of existing compilations held by various organizations, such as the following:

- ILO Department of Statistics
- Organisation for Economic Co-operation and Development (OECD)
- Statistical Office of the European Union (Eurostat)
- The World Bank
- The Conference Board
- UNESCO Institute of Statistics
- United States Bureau of Labor Statistics

Information maintained by these organizations has generally been obtained from national sources or is based on official national publications.

Whenever information was available from more than one repository, the information and background documentation from each repository was reviewed in order to select the information most suitable for inclusion, based on an assessment of the general reliability of the sources, the availability of methodological information and explanatory notes regarding the scope of coverage, the availability of information by sex and age, and the degree of historical coverage. Occasionally, two data repositories have been chosen and presented for a single country; any resulting breaks in the historical series are duly noted.

For countries with less-developed labour market information systems, such as those in the developing economies, information may not be easily available to policy-makers and the social partners, and even less so to international organizations seeking to compile global data sets. Many of these countries, however, do collect labour market information through household and establishment surveys, population censuses and administrative records, so that the main problem remains the communication of such information to the global community. In this and previous editions of the KILM, an extensive effort was made to tap into the existing datasets that are increasingly made public by national statistical offices through the medium of the internet. This “data mining” process is ongoing and should continue to assist the KILM and other ILO publications and research programmes in the expansion of its country and yearly coverage of indicators.

### **Notes and “breaks”**

The collection of labour market indicators presents a dilemma, namely, how to balance the desire to have the greatest degree of geographical coverage for a specified time period with the need to ensure the greatest level of comparability or harmonization? Achieving a harmonious balance between coverage and comparability is a difficult task; the only realistic way of dealing with the question is to provide as much methodological information as possible, while at the same time “flagging” the issues that challenge users who wish to make

valid comparisons between countries whose statistical methodology and definitions may not match in every respect. Each indicator has a section on “limitations to comparability”, and notes on methodology and sources are as explicit as possible in each table.

Historical continuity is important for many users of labour market information. Without overburdening the indicator tables, it is necessary to alert users to significant changes in the source, definition or coverage of the information from year to year. A “b” placed at the point of a chronological “break” denotes a change in the methodology, scope of coverage and/or type of source used within the country.<sup>11</sup>

Whether the information has been obtained from other international repositories, regional labour market indicator sets or directly from official sources, a substantial effort has been made to develop and maintain the links to the source and the information provider. Wherever possible, the user will find a link to the information provider’s sources, whether printed publications or web sites.

### International comparability

As mentioned above, there will always be important caveats relating to the methodologies of measurement; these require time and effort to sort out before reasonable international comparisons can be made. Limitations to comparability are often indicator-specific; however, there are standard issues that require attention with every indicator. For example, the precision of the measurements made for each country and year, and systematic differences in the type of source, related to the methodology of collection, definitions, scope of coverage and reference period, will certainly affect comparisons.

In order to minimize misinterpretation, detailed notes are provided that identify the repository, type of source (household and labour force surveys, censuses, administrative records, and so on), and changes or deviations in coverage, such as age groups and geographical coverage (national, urban, capital city) and so on. When analysing or making reference to a particular indicator, users are advised to examine closely the section “Limitations to comparability” and the notes to the data tables.

### World and regional estimates

For the first time, the electronic versions of the KILM 7th Edition offer users direct access to ILO world and regional estimates from 1991 to the present. Tables are presented for the following indicators: labour force participation (table R1), employment-to-population ratio (R2), status in employment (R3), employment by sector (R4), unemployment (R5), youth unemployment (R6), inactivity (R7), labour productivity (R8) and working poverty (R9).

Like other KILM tables based on country-level data, users will be able to query the new datasets according to year, sex and age group (R1, R2, R7 and R9) and will have access to both raw numbers and rates. The estimates are derived using one of three models which use multivariate regression techniques to impute missing values at the country level. The processes used in the ILO world and regional estimation models are described in detail in box 2.

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11. A break in series is not noted when a country-specific survey reference period has changed, although users should be aware that comparability issues do result from the frequency of data observations; the resulting methodology for calculating annual averages and a certain degree of seasonality can influence the results when a full year is not covered.

## Summary of the 18 ILO Key Indicators of the Labour Market

The KILM 7th Edition provides indicators related to labour force, employment, unemployment, educational attainment, wages and compensation costs, productivity and poverty. The 18 indicators have been organized by general topic into eight chapters. Each of the indicators is briefly described below.

### KILM 1. Labour force participation rate

The labour force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the relative size of the supply of labour available to engage in the production of goods and services. The breakdown of the labour force by sex and age group gives a profile of the distribution of the economically active population within a country.

Table 1a contains labour force participation rate estimates by sex according to the following standardized age groups: 15+, 15-24, 15-64, 25-54, 25-34, 35-54, 55-64 and 65+, and for the years 1980 to 2008. The participation rates are harmonized to account for differences in national data collection and tabulation methodologies as well as for other country-specific factors such as military service requirements. The series includes both nationally reported and imputed data and only estimates that are national, meaning there are no geographic limitations in coverage. Table 1b contains labour force participation rates as nationally reported by sex and age group (total, youth and adult), where available.

### KILM 2. Employment-to-population ratio

The employment-to-population ratio provides information on the ability of an economy to create employment; for many countries the indicator is often more insightful than the unemployment rate. Although a high overall ratio is typically considered as positive, the indicator alone is not sufficient for

assessing the level of decent work or the level of a decent work deficit. Additional indicators are required to assess such issues as earnings, hours of work, informal sector employment, underemployment and working conditions. Employment-to-population ratios are of particular interest when broken down by sex, as the ratios for men and women can provide information on gender differences in labour market activity in a given country.

The employment-to-population ratio is defined as the proportion of a country's working-age population that is employed (the youth employment-to-population ratio is the proportion of the youth population – typically defined as persons 15 to 24 years – that is employed). A high ratio means that a large proportion of a country's population is employed, while a low ratio means that a large share of the population is not involved directly in market-related activities, because they are either unemployed or (more likely) out of the labour force altogether. Table 2a provides a harmonized series of employment-to-population ratios as estimated by the ILO (like table 1a) by sex and age group – total (15+), youth (15-24) and adult (25+). Table 2b contains national estimates of employment-to-population ratios, also by sex and age group, where available.

### KILM 3. Status in employment

Indicators of status in employment distinguish between four important and useful categories of the employed – (a) wage and salaried workers, (b) employers, (c) own-account workers, and (d) contributing family workers – with each being expressed as a proportion of the total employed. Categorization by employment status can help in understanding both the dynamics of the labour market and the level of development of countries. Over the years, and with growth of the country, one would typically expect to see a shift in employment from the agriculture to the industry and services sectors, with a corresponding increase in wage and salaried workers and decreases in self-employed and contributing family workers, previously employed in the agricultural sector.

The method of classifying employment by status is based on the 1993 International Classification by Status in Employment (ICSE), which classifies jobs held by persons at a point in time with respect to the type of explicit or implicit employment contract the person has with other persons or organizations. Such status classifications reflect the degree of economic risk, an element of which is the strength of the attachment between the person and the job, and the type of authority over establishments and other workers that the person has or will have.

#### **KILM 4. Employment by sector**

This indicator disaggregates employment into three broad sectors – agriculture, industry and services – and expresses each as a percentage of total employment. The indicator shows employment growth and decline on a broad sectoral scale, while highlighting differences in trends and levels between developed and developing economies. Sectoral employment flows are an important factor in the analysis of productivity trends, because within-sector productivity growth needs to be distinguished from growth resulting from shifts from lower to higher productivity sectors. The addition of further sectoral detail in tables 4b, 4c and 4d is useful for demonstrating trends of employment within individual sectors of the economy.

The sectors of economic activity are defined according to the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 2 (1968), Revision 3 (1990) and Revision 4 (2008).

#### **KILM 5. Employment by occupation**

Employment by occupation as an indicator is a new addition in the KILM 7th Edition. The major classification groups are presented in two tables: table 5a according to the International Standard Classification of Occupation, 1988 (ISCO-88) and table 5b, according to ISCO-68. Both tables are disaggregated by sex.

There is widespread interest in the indicator: Economists use occupation in the

analysis of differences in the distribution of earnings and incomes over time and between groups – men and women, for example –, as well as in the analysis of imbalances of supply and demand in different labour markets. Policy-makers use occupational statistics in support of the formulation and implementation of economic and social policies and to monitor progress with respect to their application, including those of manpower planning and the planning of educational and vocational training. Managers need occupational statistics for planning and deciding on personnel policies and monitoring working conditions, at the enterprise and in the context the industry and relevant labour markets.

#### **KILM 6. Part-time workers**

There has been rapid growth in part-time work in the past few decades in the developed economies. This trend is related to the increase in the number of women in the labour market, but also to attempts to introduce labour market flexibility in reaction to changing work organization within industry and to the growth of the services sector. (See the discussion on part-time employment and gender equality in Chapter 1, section B.)

The indicator on part-time workers focuses on individuals whose working hours total less than “full time”, as a proportion of total employment. Because there is no agreed international definition as to the minimum number of hours in a week that constitute full-time work, the dividing line is determined either on a country-by-country basis or through the use of special estimations. Two measures are calculated for this indicator: total part-time employment as a proportion of total employment, sometimes referred to as the “part-time employment rate”; and the percentage of the part-time workforce comprised of women.

## Box 2. ILO methodology for producing world and regional estimates of labour market indicators

The biggest challenge in the production of aggregate estimates is that of missing data. In an ideal world, producing world and regional estimates of labour market indicators, such as employment, for example, would simply require summing up the total number of employed persons across all countries in the world or within a given region. However, because not all countries report data in every year and, indeed, some countries do not report data for any years at all, it is not possible to derive aggregate estimates of labour market indicators by merely summing across countries.

To address the problem of missing data, the ILO Employment Trends Team has designed and actively maintains several econometric models which are used to produce estimates of labour market indicators in the countries and years for which real data are not available. The Global Employment Trends Model (GET Model) is used to produce estimates – disaggregated by age and sex – of unemployment, employment-to-population ratios, status in employment, employment by sector and labour productivity (KILMs 2, 3, 4, 9, 10 and 17). The new econometric model described in Section A of the “key issues” chapter (Chapter 1) is utilized to produce estimates of the working poor living below the US\$1.25 and US\$2 international poverty lines (KILM 18). The global and regional labour force estimates found in KILM 1 and KILM 13 are estimated using the Trends Labour Force Model (TLF Model).

Each of these models uses multivariate regression techniques to impute missing values at the country level. The first step in each model is to assemble every known piece of real information (i.e. every real data point) for each indicator in question. Only data that are national in coverage and comparable across countries and over time are used as inputs. This is an important selection criterion when the models are run, because they are designed to use the relationship between the various labour market indicators and their macroeconomic correlates (such as per capita GDP, GDP growth rates, demographic trends, country membership in the Highly Indebted Poor Country Initiative (HIPC), geographic indicators and country and time dummy variables) in order to produce estimates of the labour market indicators where no data exist. Thus, the comparability of the labour market data that are used as inputs in the imputation models is essential to ensure that the models accurately capture the relationship between the labour market indicators and the macroeconomic variables.

The last step of the estimation procedure occurs once the datasets containing both the real and imputed labour market data have been assembled. In this step, the data are aggregated across countries to produce the final world and regional estimates. For further information on the Trends Econometric Models, readers can consult the technical background papers available at the following website: <http://www.ilo.org/public/english/employment/strat/wrest.htm>.

### KILM 7. Hours of work

The number of hours worked have an impact on the health and well-being of workers as well as on levels of productivity and labour costs of establishments. Measuring the level and trends in the hours worked in a society, for different groups of workers and for workers individually, is therefore important when monitoring working and life conditions as well as when analysing economic developments.

Two measurements related to working time are included in KILM 7 in order to give an overall picture of the time that the employed

throughout the world devote to work activities. The first measure relates to the hours an employed person works per week (table 7a). The number of employed are presented according to the following hour bands: less than 25 hours worked per week, between 25 and 34 hours, between 35 and 39 hours, between 40 and 48 hours, between 49 and 59 hours, 40 hours and over, 50 hours and over and 60 hours and over, as available. The data are broken down by sex, age group (total, youth and adult) and employment status (total, wage and salaried worker and self-employed), wherever possible. The second measure is the

average annual actual hours worked per person (table 7b).

### **KILM 8. Employment in the informal economy**

The informal economy plays a major role in employment creation, income generation and production in many countries. In countries with high rates of population growth or urbanization, the informal economy tends to absorb most of the growing labour force. Since the informal economy is generally recognized as entailing missing legal identity, poor work conditions, lack of membership in social protection systems, incidence of work related accidents and ailments, and limited freedom of association, generating statistics that count the number of persons in the informal economy broadens the knowledge base concerning the extent and content of policy responses required.

KILM 8 combines two measures of the informal economy: employment in the informal sector, the enterprise-based measure defined in the 15th ICLS, and informal employment, the broader job-based measure recommended in the 17th ICLS. The latter includes both persons employed in informal sector enterprises and persons in informal employment outside the informal sector (employees holding informal jobs) as well as contributing family workers in formal or informal sector enterprises and own-account workers engaged in the production of goods for own end use by their household. Informal employment and its subcategories are presented as a share of total non-agricultural employment.

### **KILM 9. Unemployment**

The unemployment rate is probably the best-known labour market measure and certainly one of the most widely quoted by the media in many countries. Together with the labour force participation rate (KILM 1) and employment-to-population ratio (KILM 2), it provides the broadest available indicator of economic activity and status in terms of labour markets for countries that regularly collect information on the labour force. The unemployment rate tells us the proportion of

the labour force that does not have a job and is actively looking for work. It should not be misinterpreted as a measurement of economic hardship, however, although a correlation often exists. Table 9 provides information on total unemployment.<sup>12</sup>

The resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the 13th ICLS, defines the unemployed as all persons above a specified age who, during the reference period, were without work, currently available for work and seeking work. However, it should be recognized that national definitions and coverage of unemployment can vary with regard to factors such as age limits, criteria for seeking work, and treatment of, for example, persons temporarily laid off, discouraged about job prospects or seeking work for the first time.

### **KILM 10. Youth unemployment**

Youth unemployment is an important policy issue for many countries, regardless of the stage of development. For the purpose of this indicator, the term “youth” covers persons aged 15 to 24, while “adults” are defined as persons aged 25 and over, although national variations in age definitions do occur. The indicator presents youth unemployment in the following ways: (a) the youth unemployment rate; (b) the youth unemployment rate as a percentage of the adult unemployment rate; (c) the youth share in total unemployment; and (d) youth unemployment as a proportion of the youth population.

The KILM 10 measures should be analysed together; any of the four, when analysed in isolation, could paint a distorted image. For example, a country might have a high ratio of youth-to-adult unemployment but a low youth share in total unemployment. The presentation of youth unemployment as a proportion of the youth population recognizes the fact that a large proportion of young people enter unemployment from outside the labour force.

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12. Previous editions of the KILM also included a table on registered unemployment.

Taken together, the four indicators provide a fairly comprehensive indication of the problems that young people face in finding jobs.

### **KILM 11. Long-term unemployment**

Unemployment tends to have more severe effects the longer it lasts. Short periods of joblessness can normally be dealt with through unemployment compensation, savings and, perhaps, assistance from family members. Unemployment lasting a year or longer, however, can cause substantial financial hardship, especially when unemployment benefits either do not exist or have been exhausted. Long-term unemployment is not generally viewed as an important indicator for developing economies, where the duration of unemployment often tends to be short, due to the lack of unemployment compensation and the fact that most people cannot afford to be without work for long periods. Therefore, most of the information available for this indicator comes from the more developed economies. The data are available by sex and age group (total, youth and adult), wherever possible.

The indicator on long-term unemployment makes the basic assumption that unemployment that lasts a full year or more is too long, and is thus a phenomenon worthy of special attention. Two separate measures of long-term unemployment are included: (a) those unemployed one year or more as a percentage of the labour force; and (b) those unemployed one year or more as a percentage of the total unemployed (the incidence of long-term unemployment).

### **KILM 12. Time-related underemployment**

Underemployment reflects underutilization of the productive capacity of the labour force. Time-related underemployment, as the only component of underemployment, to date, that has been agreed on and properly defined within the international community of labour statisticians, is, therefore, the best available proxy of the underutilized labour force. The indicator is important for improving the description of employment-related problems, as

well as assessing the extent to which available human resources are being utilized in the production process of the country. It also provides useful insights for the design and evaluation of employment, income and social programmes. The indicator includes two measures – time-related underemployment as a percentage of the labour force, and as a percentage of total employment.

The international definition of time-related underemployment was adopted in 1982 by the 13th ICLS and amended in 1998 by the 16th ICLS. It includes all persons in employment whose hours of work “are insufficient in relation to an alternative employment situation in which the person is willing and available to engage”.

### **KILM 13. Inactivity**

The inactivity rate is defined as the percentage of the population that is neither working nor seeking work (that is, not in the labour force). The inactivity rate of the age groups 15+, 15-24, 15-64, 25-54, 25-34, 35-54, 55-64 and 65+ are shown in table 13. The 25-54 age group can be of particular interest since it is considered to be the “prime-age” group, in which individuals are generally expected to be in the labour force; it is worthwhile investigating why these potential labour force participants are inactive, since they have normally completed their education but have not yet reached retirement age. The inactivity rate of women, in particular, tells us a lot about the social customs of a country, attitudes towards women in the labour force, and family structures in general.

The inactivity rates, when added to the labour force participation rate (KILM table 1a) for the corresponding group, will equal 100 per cent. Data in table 13 has been harmonized to account for differences in national data collection and tabulation methodologies as well as for other country-specific factors such as military service requirements. The series includes both nationally reported and imputed data and only estimates that are national, meaning there are no geographic limitations in coverage.

#### **KILM 14. Educational attainment and illiteracy**

An increasingly important aspect of labour market performance and national competitiveness is the skill level of the workforce. Information on levels of educational attainment is currently the best available indicator of labour force skill levels. These are important determinants of a country's capacity to compete successfully in world markets and to make efficient use of rapid technological advances; they are also among the factors determining the employability of workers.

Table 14a presents information on the educational attainment of the labour force, with data broken down by sex and age group (total, youth, young adult and adult), wherever possible. Table 14b presents the distribution of the unemployed population by level of educational attainment and table 14c presents the unemployment rates of persons who attained education at the primary level or less, secondary or tertiary level. The categories used in the three indicators are conceptually based on the levels of the International Standard Classification of Education (ISCED), contained in Appendix C. ISCED was designed by UNESCO to serve as an instrument for assembling, compiling and presenting comparable indicators and statistics of education, both within countries and internationally. Finally, table 14d is a measure of illiteracy in the population (total, youth and adult).

#### **KILM 15. Average monthly wages**

Information on average wages represents one of the most important aspects of labour market information. Because wages are a substantial form of income, accruing to a high proportion of the economically active population, information on wage levels is essential to evaluate the living standards and conditions of work and life of this group of workers in both developed and developing economies. One can then further assess how far economic growth and rising labour productivity translate into better living standards for ordinary workers and to the reduction of

working poverty.

KILM 15 presents trends in average monthly wages, both in nominal and real terms (i.e. adjusted for changes in consumer prices). Both the nominal and real average wage series are presented in national currency. This enables data users to calculate nominal and real wage growth rates without distortion caused by exchange rate fluctuations, and to link wage data to other data expressed in national currency. It also takes account of the fact that wage levels may not be strictly comparable across countries due to methodological differences, while growth rates are less likely to be affected by statistical effects.

#### **KILM 16. Hourly compensation costs**

Average hourly compensation cost is a measure intended to represent employers' expenditure on the benefits granted to their employees as compensation for an hour of labour. These benefits accrue to employees, either directly – in the form of total gross earnings – or indirectly – in terms of employers' contributions to compulsory, contractual and private social security schemes, pension plans, casualty or life insurance schemes and benefit plans in respect of their employees. This latter group of benefits is commonly known as “non-wage benefits” or “non-wage labour costs” when referring to employers' expenditure. At both the national and international levels, labour costs are a crucial factor in the abilities of enterprises and countries to compete. When specific to the manufacturing sector, compensation costs serves as an indicator of competitiveness of manufactured goods in world trade.

The indicators within KILM 16 are concerned with the levels, trends and structures of employers' hourly compensation costs for the employment of workers in the manufacturing sector. The measure for all employees is shown in table 16a and for production workers separately in table 16b. Total compensation is also broken down into “hourly direct pay” with subcategories “pay for time worked” and “directly paid benefits”, and “social insurance expenditure and labour-

related taxes” with all variables expressed in US dollars.

### **KILM 17. Labour productivity**

Productivity, in combination with hourly compensation costs, can be used to assess the international competitiveness of a labour market. Economic growth in a country or sector can be ascribed either to increased employment or to more effective work by those who are employed. The latter can be described through data on labour productivity. Labour productivity, therefore, is a key measure of economic performance. An understanding of the driving forces behind it, in particular the accumulation of machinery and equipment, improvements in organization as well as physical and institutional infrastructures, improved health and skills of workers (“human capital”) and the generation of new technology, is important in formulating policies to support economic growth.

Labour productivity is defined as output per unit of labour input. Two measures are presented in table 17, GDP per person engaged and GDP per hour worked, both in 1990 US\$ and indexed to 1990 = 100.

### **KILM 18. Poverty, income distribution and the working poor**

Poverty can result when individuals are unable to generate sufficient income from their labour to maintain a minimum standard of living. The extent of poverty, therefore, can be viewed as an outcome of the functioning of labour markets. Because labour is often the most significant, if not the only, asset of individuals in poverty, the most effective way to improve the level of welfare is to increase employment opportunities and labour productivity through education and training.

An estimate of the number of people in poverty in a country depends on the choice of the poverty threshold. However, what constitutes such a threshold of minimum basic needs is subjective, varying with culture and national priorities. Definitional variations create difficulties when it comes to making

international comparisons. Therefore, in addition to national poverty measurements shown in table 18a, this indicator presents data relative to the World Bank international poverty lines of US\$1.25 and US\$2 per person per day. The Gini index is also given, as it is a convenient summary measure of the degree of inequality based on either income or expenditure. Estimates of the “working poor” – defined as the proportion of employed persons living in a household whose members are estimated to be below the poverty line – are also made available in table 18b. (See Chapter 1, section A for a detailed description of the micro-based working poor series.)

### **KILM electronic versions**

The ILO hopes to reach a wider audience by presenting KILM in electronic as well as in printed form, each of which corresponds to specific users’ needs. As in previous editions, the electronic version of the KILM contains all the data sets for the indicators, together with interactive software through which users can select and query the indicators by country, year, type of source and other user-defined functions according to specific needs. It includes everything that is in the printed publication plus information for all years after 1980, as well as all the basic statistics used to calculate the indicators. Data updates will be automatically downloaded each time a user opens the programme (if connected to the Internet). Users who do not have Internet access will be notified by email of the availability of updates, assuming they fill in the registration material. Users can download the KILM programme from [www.ilo.org/kilm](http://www.ilo.org/kilm).

With the internet-based KILM database (KILMnet), accessing the country-level data for the 18 key labour market indicators as well as the descriptive text explaining the indicators’ use, definitions and basic trends is easier than ever. Users can now run quick and easy searches of KILM indicators and display and export data into a variety of formats directly from the internet. The KILMnet is located at website: [www.ilo.org/kilmnet](http://www.ilo.org/kilmnet).