

# Labour force participation rate

## Introduction

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 size of the supply of labour available to engage in the production of goods and services, relative to the population at working age. The breakdown of the labour force (formerly known as economically active population) by sex and age group gives a profile of the distribution of the labour force within a country.

ILOSTAT contains statistics from national sources on labour force participation rates by sex and age, rural/urban areas and education. ILOSTAT also includes ILO estimates of labour force participation rates by sex and age, which contain both nationally reported and imputed data, and where all estimates are national, meaning there are no geographic limitations in coverage<sup>1</sup>.

## Concepts and definitions

The labour force participation rate is calculated by expressing the number of persons in the labour force as a percentage of the working-age population. The labour force is the sum of the number of persons employed and the number of persons unemployed.<sup>2</sup> Thus, the measurement of the labour force participation rate requires the measurement of both employment and unemployment. Employment comprises all persons of working age who during a specified brief period, such as one week or one day, were in the following categories: a) paid employment (whether at work or with a job but not at work); or b) self-employment (whether at work or with an enterprise but not at work). The unemployed comprise all persons of working age who were: a) without work during the reference period, i.e. were not in paid employment or self-employment; b) currently available for work, i.e. were available for paid employment or self-employment during the reference period; and c) seeking work, i.e. had taken specific steps in a specified recent period to seek paid employment or self-employment.

The working-age population is the population above the legal working age, but for statistical purposes it comprises all persons above a specified minimum age threshold for which an inquiry on economic activity is made. To favour international comparability, the working-age population is often defined as all persons aged 15 and older, but this may vary from country to country based on national laws and practices (some countries also apply an upper age limit).

The labour force participation rate is related by definition to other indicators of the labour market. The inactivity rate is equal to 100 minus the labour force participation rate, when the participation rate is expressed as a number between 0 and 100. ILOSTAT also contains statistics on persons outside the labour force (formerly known as the economically inactive population). The employment-to-population ratio is equal to the labour force participation rate after the deduction of unemployment from the numerator of the rate.

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<sup>1</sup> For further information on the methodology used to produce harmonized estimates, see Bourmpoula, V., Kapsos, S. and Pasteels, J.M.: "ILO labour force estimates and projections: 1990-2050 (2015 edition)" (ILO, Geneva, 2015). <http://www.ilo.org/ilostat-files/Documents/LFEP%20Methodology%202015.pdf>

<sup>2</sup> Resolution concerning statistics of work, employment and labour underutilization, adopted by the 19<sup>th</sup> International Conference of Labour Statisticians, Geneva, October 2013; [http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS\\_230304/lang-en/index.htm](http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_230304/lang-en/index.htm)

## Method of computation

The labour force participation rate is calculated as follows:

$$\text{LFPR}(\%) = \frac{\text{Labour force}}{\text{Working-age population}} \times 100$$

$$\text{LFPR}(\%) = \frac{\text{Persons employed} + \text{persons unemployed}}{\text{Working-age population}} \times 100$$

## Recommended sources

Labour force surveys are typically the preferred source of information for determining the labour force participation rate and related indicators. Such surveys can be designed to cover virtually the entire non-institutional population of a given country, all branches of economic activity, all sectors of the economy and all categories of workers, including the self-employed, contributing family workers, casual workers and multiple jobholders. In addition, such surveys generally provide an opportunity for the simultaneous measurement of the employed, the unemployed and persons outside the labour force in a coherent framework.

Population censuses are another major source of data on the labour force and its components. The labour force participation rates obtained from population censuses, however, tend to be lower, as the vastness of the census operation inhibits the recruitment of trained interviewers and does not typically allow for detailed probing on the labour market activities of the respondents.

## Interpretation and use of the indicator

The labour force participation rate indicator plays a central role in the study of the factors that determine the size and composition of a country's human resources and in making projections of the future supply of labour. The information is also used to formulate employment policies, to determine training needs and to calculate the expected working lives of the male and female populations and the rates of accession to, and retirement from, economic activity – crucial information for the financial planning of social security systems.

The indicator is also used for understanding the labour market behaviour of different categories of the population. The level and pattern of labour force participation depends on employment opportunities and the demand for income, which may differ from one category of persons to another. For example, studies have shown that the labour force participation rates of women vary systematically, at any given age, with their marital status and level of education. There are also important differences in the participation rates of the urban and rural populations, and among different socio-economic groups.

Malnutrition, disability and chronic sickness can affect the capacity to work and are therefore also considered as major determinants of labour force participation, particularly in low-income environments. Another aspect closely studied by demographers is the relationship between fertility and female labour force participation. This relationship is used to predict the evolution of fertility rates, from the current pattern of female participation in economic activity.<sup>3</sup>

Comparison of the overall labour force participation rates of countries at different stages of development reveals a U-shaped relationship. In less-developed economies, labour force participation

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<sup>3</sup> See, for example, ILO: "Female labour force participation rate and fertility", in Key Indicators of the Labour Market, Third Edition, Chapter 1 (Geneva, 2003).

rates can be seen to decline with economic growth. Economic growth is associated with expanding educational facilities and longer time spent studying, a shift from labour-intensive agricultural activities to urban economic activities, and a rise in earning opportunities, particularly for the “prime” working age (25 to 54 years) head of household so that other household members with lower earning potential may choose not to work. These factors together tend to lower the overall labour force participation rate for both men and women, although the effect is weaker for the latter and shows a wider variation.

It is also instructive to look at labour force participation rates for males and females by age group. Labour force activity among the young (15 to 24 years) reflects the availability of educational opportunities, while labour force activity among older workers (55 to 64 years or 65 years and over) gives an indication of the attitude towards retirement and the existence of social safety nets for the retired. Labour force participation is generally lower for females than for males in each age category. Among the prime working age, the female rates are not only lower than the corresponding male rates, but they also typically exhibit a somewhat different pattern. During this period of their life-cycle, women tend to leave the labour force to give birth to and raise children, returning – but at a lower rate – to economically active life when the children are older. In developed economies, the profile of female participation is, however, increasingly becoming similar to that of men.

To some degree, the way in which the labour force is measured can have an effect on the extent to which men and women are included in labour force estimates. Unless specific probing questions are built into the survey questionnaire, participation among certain groups of workers may be underestimated – particularly the number of employed persons who (a) work for only a few hours in the reference period, especially if they do not do so regularly, (b) are in unpaid employment, or (c) work near or in their home, thus mixing work and personal activities during the day. Since women, more so than men, are found in these situations, it is to be expected that the number of women in employment (and thus the female labour force) will tend to be underestimated to a larger extent than the number of men.

## Limitations

National data on labour force participation rates may not be comparable owing to differences in concepts and methodologies. The single most important factor affecting data comparability is the data source. Labour force data obtained from population censuses are often based on a restricted number of questions on the economic characteristics of individuals, with little possibility of probing. The resulting data, therefore, are generally not consistent with corresponding labour force survey data and may vary considerably from one country to another, depending on the number and type of questions included in the census. Establishment censuses and surveys can – by their nature – only provide data on the employed population, leaving out the unemployed and, in many countries, also excluding workers engaged in small establishments or in the informal economy who fall outside the scope of the survey or census.

For international comparisons of labour force data, the most comprehensive source is undoubtedly labour force surveys. Nevertheless, despite their strength, labour force survey data may contain non-comparable elements in terms of scope and coverage, mainly because of differences in the inclusion or exclusion of certain geographic areas, and the incorporation or non-incorporation of military conscripts. Also, there are variations in national definitions of the labour force concept, particularly with respect to the statistical treatment of some specific groups, such as “contributing family workers” and “persons not employed, available for work but not looking for work”.

Non-comparability may also arise from differences in the age limits used in measuring the labour force (formerly known as the economically active population). Some countries have adopted non-standard upper-age limits for inclusion in the labour force, with a cut-off point of 65 or 70 years, which will affect broad comparisons, and especially comparisons of those at the higher age levels. Finally, differences in the dates to which the data refer, as well as the method of averaging over the year, may contribute to the non-comparability of the resulting statistics.

To a large extent, these comparability issues have been addressed in the construction of the ILO estimates of labour force participation rates included in ILOSTAT. Only household labour force survey and population census data that are representative of the whole country (with no geographic limitation)

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were used in the construction of the estimates. In countries with more than one survey source, only one type of source was used. If a labour force survey was available for the country, labour force participation rates derived from this source were chosen in favour of those derived from population censuses.