

ANNUAL HOURS WORKED

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The series on annual hours actually worked per person in total employment presented in this table for 35 OECD countries are, in principle, consistent with the series retained for the calculation of productivity measures in the OECD Productivity Database (www.oecd.org/std/productivity-stats/oecd-compendium-of-productivity-indicators-22252126.htm). However, there may be some differences for some countries given that the main purpose of the latter database is to report data series on labour input (i.e. total hours worked) and also because the updating of databases occur at different moment of the year.

Hours actually worked per person in employment are according to National Accounts concepts for 25 countries: Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Korea, Luxembourg, Latvia, the Netherlands, Norway, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland and Turkey. Secretariat estimates for Lithuania for annual hours worked are based on the European Labour Force Survey as are estimates for dependent employees for Austria, Estonia, Greece, Ireland, Latvia, Portugal and the Slovak Republic. For the remaining countries, the sources and methodologies are the same as those presented in the previous edition of the OECD Employment Outlook, as are estimates reported for dependent employment for 29 OECD countries. The table also includes labour force survey based estimates for Costa Rica and the Russian Federation.

Secretariat estimates for **Lithuania** for annual hours worked and estimates for dependent employees for **Austria, Estonia, Greece, Ireland, Latvia, Lithuania, Portugal and the Slovak Republic** are based on the Spring (second quarter) European Labour Force Survey (EULFS) as the main source of data for various components of working time (overtime, second jobs, sickness absences, maternity leave, parental leave and other reasons of absences). As data from the EULFS correspond to one single reading in the year, external sources are used for hours not worked due to public holidays and annual leave. A correction is also made to account for an estimated 50 per cent underreporting in the EULFS, on average, of hours not worked due to sickness absences. In sum, the estimates are computed by multiplying average weekly hours worked by the number of effective weeks worked during the year (taking into account vacation and time not worked due to other reasons). These estimates of annual working time take into account the number of public holidays and the statutory annual leave reported in EIRO (2013) report on "Developments in working time 2015-2016" (see https://www.eurofound.europa.eu/sites/default/files/ef_comparative_analytical_report/field_ef_source_documents/ef1726_-_developments_in_working_time_2015-2016_updated_08092017.pdf).

Australia: Data supplied by the Australian Bureau of Statistics from the Labour Force Survey. The method of estimation is consistent with the National Accounts and accounts for non random-events such as public holidays falling outside the survey reference period. The series refer to calendar year. Data for 2012 is an OECD estimate.

Austria: Data series taken from the OECD National Accounts questionnaire and refer to hours worked per worker, while the series published in previous editions of the Employment Outlook referred to hours per job. OECD estimates for data series on dependent employees.

Belgium: Data supplied by Banque National de Belgique in response to the OECD Annual National Accounts questionnaire. No information on methodology used is available so far.

Canada: Data series supplied by Statistics Canada based mainly on the monthly Labour Force Survey supplemented by the Survey of Employment Payrolls and Hours, the annual Survey of Manufacturers and the Census of Mining. Data on annual hours are adjusted for holidays and other specific events and to the SNA boundary. The methodology to compile average annual hours worked refer hours worked **per job** had been revised back to 1981. Data series are further smoothed to remove the breaks in series from 1961 onwards.

Chile: Data series provided by the Instituto Nacional de Estadística (INE). Annual hours worked estimates are derived from the Encuesta Nacional de Empleo (ENE) until 2009 and from the Nuevo Encuesta Nacional de Empleo (NENE) since 2010.

Czech Republic: Data supplied by the Czech Statistical Office and based on weekly actual hours worked reported in the quarterly Labour Force Sample Survey. Main meal breaks (one half hour a day) are included until 2000 and are excluded thereafter.

Denmark: Data series taken from the OECD National Accounts questionnaire reply. As reported in Working Time Accounts (WTA), annual hours worked per dependent employee are mainly paid contractual and overtime hours minus paid absences, and include paid meal breaks. Hours worked by self-employed are estimated on the basis of hours worked by full-time employees and a ratio of extra work performed by self-employed. Adjustment to National Accounts concepts consists only at including hours worked in the unobserved economy. In sum, national estimates of annual hours worked are according to paid hours and do not include neither unpaid overtime nor unpaid absences for different reasons. The main source for hours worked is The Yearly Statistics on Earnings completed with the number of jobs during the year from the Register of Employment statistics.

Estonia: Data supplied by Statistics Estonia. Estimates are based on the quarterly labour force survey. OECD estimates for data series on dependent employees.

Finland: Data supplied by Statistics Finland. National accounts series based on an establishment survey for manufacturing (conscripts are included), and the Labour Force Survey for other sectors and for the self-employed. Since 2000 the LFS data collection method gives data of all weeks in the year. For earlier years there was only one reference week in a month. Conscripts are excluded.

France: Major downward revision of data on annual hours worked supplied by the Institut National de la Statistique et des Etudes Economiques (INSEE) according to ESA2005 (the 2005 version of the European System of Accounts) consistent with National Accounts domestic concepts. INSEE revised level estimates of the entire series since 1950, which results in annual hours worked per worker that are 55-80 hours lower than the old series. The main reason for the downward revision of the new hours worked series is due to an upward revision of the average employment series, which better accounts for part-time employment in jobs with very few hours (see: www.insee.fr/fr/indicateurs/cnat_annu/base_2005/methodologie/emploi-et-heures-travaillees-base-2005.pdf). The method of estimation is a component method which separately takes into account overtime hours and hours worked in second or more jobs. Total hours worked include hours worked in the underground economy and is divided by national accounts average employment (excluding any adjustment for the underground economy) to calculate annual hours worked estimates.

Germany: Data supplied by the Institut für Arbeitsmarkt- und Berufsforschung (IAB), calculated within a comprehensive accounting structure, based on establishment survey estimates of weekly hours worked by full-time workers whose hours are not affected by absence, and extended to annual estimates of actual hours by adjusting for a wide range of factors, including public holidays, sickness absence, overtime working, short-time working, bad weather, strikes, part-time working and parental leave. Data series from 1991 onward extend coverage of part-time work with few hours of work.

Greece: Data reported in the OECD National Accounts questionnaire by the National Statistical Service of Greece. Annual hours worked are calculated by multiplying annual average weekly actual hours worked by a factor of 52 weeks. OECD estimates for data series on dependent employees.

Hungary: Data for total employment are according to National Accounts concepts and are consistent with the OECD National Accounts questionnaire reply. Data for employees supplied by the Hungarian Statistical office. Annual hours estimates based on an establishment survey for manufacturing covering five or more employees.

Iceland: Data provided by Statistics Iceland and based on the Icelandic Labour Force Survey. Prior to 2003, annual actual hours worked per person in employment are computed by multiplying daily actual hours worked by annual actual working days net of public holidays and annual vacations. The latter are for a typical work contract by sector of activity. Since 2003, Statistics Iceland produces annual hours worked series, according to a direct method of estimation, obtained by multiplying continuous monthly labour force survey based actual weekly hours worked by 52 calendar weeks. The estimates reported here since 2003 are OECD estimates based on the old series, which is prolonged using the trend observed in the new series.

Ireland: Data supplied by the Central Statistics Office (CSO) in response to the OECD Annual National Accounts questionnaire. No information on methodology used is available so far. OECD estimates for data series on dependent employees.

Israel: Data taken from the OECD National Accounts questionnaire reply. Data for 2011 and 2012 are OECD estimates.

Italy: Series reported in the OECD National Accounts questionnaire reply. Series on “Hours worked” I built on statistical treatment of data from Labour Force Survey, integrated with information from administrative sources. ISTAT has adopted the new European System of Accounts (ESA2010) in September 2014. Series of labour input have been revised following the adoption of new sources (particularly administrative data and population census) and changes in methodologies. Break in series prior and after 1995. From 1960 to 1985, the trend in data is taken from the series provided by ISTAT and based on a special establishment survey on total employment discontinued in 1985.

Japan: Data for total employment are Secretariat estimates based on data on monthly hours worked by regular workers in the non-farm private sector taken from the Monthly Labour Survey of Establishments, then extended to agricultural and government sectors, non-regular workers and the self-employed by means of actual hours worked from the Labour Force Survey. Annual hours worked are on a **per job** basis. Data for dependent employment supplied by Statistics Bureau, Management and Coordination Agency, from the Monthly Labour Survey, referring to all industries excluding agriculture, forest, fisheries and government services. Annual hours per dependent employee are also on a **per job** basis.

Korea: Since 2008, data on annual hours worked for total employment are supplied by Statistics Korea and estimated using a component method similar to that applied for Japan and to a certain extent for the United States. The result of Labour Force Survey at Establishments was used as basic data for permanent employees and industries covered by the survey and the Economically Active Population Survey (i.e. Labour Force Survey at Households) was used as supplementary data for the remaining workers and industries. Prior to 2008, data for total employment are taken from the OECD National Accounts questionnaire reporting actual weekly hours worked from the Economically Active Population Survey (EAPS). Annual hours worked are OECD calculation obtained by multiplying actual weekly hours worked by 52 weeks.

Data for dependent employment are supplied by the Ministry of Labour from the Survey on Wages and Working Hours at establishments with five or more regular (permanent) employees.

Latvia: Data supplied from the OECD Annual National Accounts questionnaire. LFS-based actual weekly hours worked in the main job is multiplied by 52 weeks. OECD estimates for data series on dependent employees.

Luxembourg: Data supplied by the Statistical Office - STATEC - in response to the OECD Annual National Accounts questionnaire. Annual hours estimates produced by the IGSS (Inspection générale de la sécurité sociale) the national social insurance Institution.

Mexico: Data series supplied by INEGI (Statistical Office) based on the continuous quarterly labour force survey (Encuesta Nacional de Ocupación y Empleo –ENOE - conducted since January 2005 and Encuesta Nacional de Empleo – ENE - prior to 2005). Annual actual hours worked per worker are obtained as the product of average weekly actual hours worked multiplied by 52 weeks.

Netherlands: Data series for all employed and employees supplied by Statistics Netherlands, compiled within the framework of the Labour Accounts. The hours worked are based on the contractual hours agreed by employers and employees minus hours leave, hours for reduced working hours (adv) and holidays. Subtracted from this are the number of hours not worked due to illness, short absences, and strikes. The hours of paid and unpaid overtime are included in the hours worked.

New Zealand: Data supplied by Statistics New Zealand and derived from the quarterly Labour Force Survey, whose continuous sample design avoids the need for adjustments of weekly actual hours worked for public holidays and other days lost.

Norway: Data supplied by Statistics Norway, based on national accounts and estimated from a number of different data sources, the most important being establishment surveys, Labour Force Survey and public sector accounts.

Poland: Data supplied by the Central Statistical Office (CSO) of Poland and derived from the continuous quarterly labour force survey since 2000. Annual hours actually worked are obtained by dividing total weekly hours at work by average number of people in employment annualised by multiplying by 52 weeks. Data prior to 1999 are based on the quarterly labour force survey with fixed monthly reference weeks. In 1999, the survey was conducted only in the first quarter and in the last quarter, when the continuous survey was introduced, which causes a break in the series prior and after 1999.

Portugal: Data supplied from the OECD Annual National Accounts questionnaire. LFS-based actual weekly hours worked in the main job is multiplied by 52 weeks. OECD estimates for data series on dependent employees.

Slovak Republic: Data series for total employment consistent with National Accounts questionnaire reply according to domestic concept. Hours worked cover the main meal break until 2001 and are excluded thereafter. Hours actually worked per week annualised multiplying by 52 weeks. OECD estimates for data series on dependent employees.

Slovenia: Data supplied by the Statistical Office of the Republic of Slovenia also reported in the OECD National Accounts questionnaire according to domestic concept.

Spain: Data supplied by the Statistical Office (INE) from the National Accounts according to domestic concepts. Data prior to 1995 for total employment and dependent employees are estimations obtained by splicing National Accounts estimates for 1995 on an alternative national series of annual working time provided by Instituto Nacional de Estadística (INE) derived from the quarterly Labour Force Survey and from the Short-Term Labour Survey.

Sweden: Series from 1996 are supplied by Statistics Sweden based on national accounts concepts and estimated using both Labour Force Survey and establishment survey results. Compared with annual hours worked estimates solely based on LFS, there are some differences. The LFS data on hours worked refer to the average hours worked per week during the quarter. For NA purposes however, an adapted data set with quarterly volumes of hours worked is generated from LFS. Besides the employment published by LFS, the labour input in NA also includes conscripts and their hours worked, as well as a deduction for persons registered in the population records for Sweden, but employed abroad, and their hours worked. These adjustments are made on the basis of LFS data. The detailed annual NA deviate from the LFS in several additional areas. The main source for calculating the labour input for the total economy in National Accounts (NA) is the Labour Force Survey (LFS). In NA the development of the average number of employed and total hours worked in the economy corresponds by and large to the development in LFS for the entire calendar year. However, deviations may occur for specific quarters. For estimations of industries and institutional sectors, the short-term employment statistics and short-term statistics for wages and salaries regarding private, municipal, county council and central government are also used.

Switzerland: Data on total hours worked reported by the Office Fédéral de la Statistique (OFS) according to National Accounts domestic concepts. Annual hours worked **on a per employed person** basis are OECD calculations obtained by dividing total hours worked by average employment according to domestic concept reported by *Statistique de la Population Active Occupée* (SPA0). The basis of the calculation of total hours worked is the Swiss Labour Force Survey which provides information on weekly hours worked during one quarter of the year until 2009 and every quarter since 2010. The estimates of total hours worked are derived from a component method accounting for different reasons of absences (i.e. annual leave, public

holidays, sickness absences and others), overtime work and hours worked in additional jobs. Data are adjusted to be consistent with national accounts concepts.

Turkey: Data reported in the OECD National Accounts questionnaire. Data from 2005 to 2012 are estimates obtained by applying the trend observed in the series of average weekly actual hours worked per dependent employee, derived from the Household Labour Force Survey, to the original annual hours worked series available from 1970 to 2004.

United Kingdom: Data supplied by the Office of National Statistics (ONS) and based on weekly actual hours worked from the continuous Labour Force Survey annualised by multiplying by 52 weeks and adjusted to conform to calendar years. Data are calendar quarters since first quarter 2005 and are spliced with the old series for previous years. Since 1984, data refer to the United Kingdom (including Northern Ireland). For 1984 to 1991, the trend in the data is taken from the annual Labour Force Survey. From 1970 to 1983, the trend corresponds to estimates by Professor Angus Maddison.

United States: Data supplied by the Bureau of Labor Statistics (BLS), Office of Productivity and Technology (OPT). Slightly upward revised estimates of the annual hour per worker series. The annual working hours series are unpublished data expressed on a per job basis. The annual hours worked series are derived from the *Current Employment Statistics* (CES) for production and non-supervisory workers in the non-farm private sector and from the *Current Population Survey* (CPS) for remaining workers. The OECD Secretariat converts hours per job series to hours per worker series by multiplying the annual hours work per job by $(1 + \text{CPS based share of multiple jobholders in total employment})$.

Costa Rica: Data provided by INEC based on Encuesta Continua de Empleo (ECE) actual hours estimates multiplied by 52 weeks.

Russian Federation: Data supplied by the Federal State Statistics Service (ROSSTAT). Estimates are based on the quarterly labour force survey.