

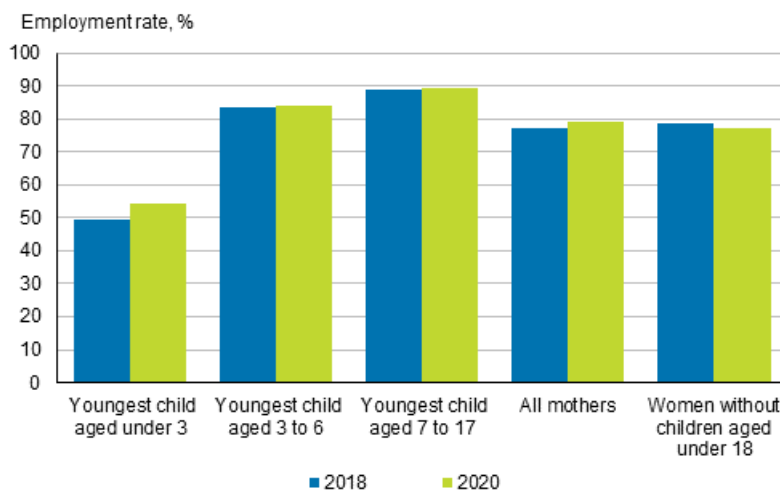
# Labour Force Survey

## Families and work in 2020

### Employment rate rose among mothers of small children

In 2020, the employment rate went down slightly for those aged 20 to 59 compared with 2018. Men’s employment rate fell and women’s employment rate remained almost unchanged. The employment rate among mothers of families with underage children rose from 77.2 to 79.2 per cent. The employment rate went up most among those mothers whose youngest child was aged under three. The employment rate fell most among men without children aged under 18. These data derive from Statistics Finland’s table release Labour Force Survey 2020, families and work.

#### Employment rates for mothers aged 20 to 59 year old by age of their youngest child in 2018 and 2020, %



Statistics Finland publishes data on the household module of the Labour Force Survey in the StatFin database service. The labour market position can be examined on the basis of household data according to the family situation. Corresponding data have previously been published in connection with the Families and work reviews.

Tables 139q and 139r contain time series for 2009 to 2020 according to the estimation method used until the end of 2020.

## Links

Labour Force Survey tables in databases: [http://tilastokeskus.fi/ti/tyti/tau\\_en.html](http://tilastokeskus.fi/ti/tyti/tau_en.html).

# Contents

Quality Description: Labour force survey.....4

# Quality Description: Labour force survey

## 1. Relevance of statistical information

The Labour Force Survey is a sample survey used in the compilation of monthly, quarterly and annual statistics on participation in the labour market, employment, unemployment and working hours among the population aged between 15 and 74. The data content of the Survey is based on an EU regulation, and the Survey sample includes approximately 12,000 persons every month. The information provided by the respondents is used to produce a picture of the activities of the entire population aged between 15 and 74 on the labour market during one week. In the basic classification of labour market status, the population is divided into the employed, the unemployed and the economically inactive. The active population (labour force) consists of the employed and the unemployed.

The Survey provides an up-to-date and comprehensive picture of the active population (labour force) and changes on the labour market. Public attention is focused each month especially on the changes in employment and unemployment from the corresponding month in the previous year. Seasonally adjusted figures are used to monitor the trend in the change. The Survey also provides information about persons of working age who are not employed or job seekers. Since 2003, information has also been obtained from a subsample on the structure of households and the activities of all members of a household aged 15 to 74 relative to the labour market. A description of the data content of the Labour Force Survey is available at [http://tilastokeskus.fi/til/tyti/tyti\\_2008-02-19\\_tlu\\_001\\_en.html](http://tilastokeskus.fi/til/tyti/tyti_2008-02-19_tlu_001_en.html).

The monthly and quarterly results of the Labour Force Survey describe the seasonal and trend variation of employment. The Labour Force Survey time series describe long term changes in the labour market. Annual averages describe the active population, that is, the employed and the unemployed, and persons outside the labour force by, for instance, industry, occupation, education, age, gender and area.

The results of the Survey are used in preparing, among other things, labour market projections and plans, as support for decision-making and in the monitoring of the effects of different measures on employment. Key users of the results are ministries, authorities responsible for regional planning, employers' and employees' organisations, universities and research institutes, international organisations and the European Union. At Statistics Finland the data are used in, for instance, calculations of National Accounts. The Statistical Office of the European Communities, Eurostat, steers the content of the Survey and monitors its quality. Eurostat produces structural indicators and other statistics from the quarterly data that are submitted to it.

The concepts and definitions used in the Survey comply with the recommendations of ILO, the International Labour Organisation of the UN, and the regulations of the European Union on official statistics. The current data content of the Labour Force Survey is mainly based on the EU Regulations concerning Labour Force Surveys (Nos 577/98, 2257/2003 and 430/2005). A detailed description of the EU Labour Force Survey is available at:

[http://ec.europa.eu/eurostat/statistics-explained/index.php/Labour\\_market\\_and\\_Labour\\_force\\_survey\\_\(LFS\)\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Labour_market_and_Labour_force_survey_(LFS)_statistics)

Since 1999 a harmonised EU ad hoc survey with an annually changing topic has been conducted in connection with the Labour Force Survey. Further information about the ad hoc surveys can be found (in Finnish) at: [http://tilastokeskus.fi/til/tyti/tyti\\_2018-04-12\\_men\\_001.pdf](http://tilastokeskus.fi/til/tyti/tyti_2018-04-12_men_001.pdf).

Concepts:

- A person is **employed** if he/she has during the survey week been in gainful employment at least one hour against wages or salary or fringe benefits, or to make profit. Employees temporarily absent from work during the survey week are also classified as employed if the reason for absence is maternity or paternity leave or own illness or the absence has lasted for under three months. A self-employed person or an unpaid worker in an enterprise of a family member is calculated in employed regardless of the length or reason for absence.
- A person is **unemployed** if he/she is without work during the survey week, has actively sought employment in the past four weeks as an employee or self-employed and would be available for work

within two weeks. A person who is without work and waiting for an agreed job to start within three months is also classified as unemployed, if he/she could start work within two weeks.

- The **active population (labour force)** comprises all persons who are employed or unemployed during the survey week.
- The **economically inactive population** consists of persons who are not employed or unemployed during the survey week. The economically inactive population can also be referred as persons outside the labour force.

**The classifications** used in the Labour Force Survey include the Standard Industrial Classification (TOL 2008, NACE Rev. 2), the Classification of Occupations 2010 (ISCO-08), the Classification of Socio-economic Groups 1989 (based on the Classification of Occupations 2010) and the Classification of Education 1997 (ISCED) as well as the regional classification into Major Regions, Regional State Administrative Agencies (AVI), Centres for Economic Development, Transport and the Environment (ELY Centre) and Regions.

## 2. Methodological description of the statistical survey

The population of the Labour Force Survey consists of persons aged between 15 and 74 who are permanent residents of Finland. The population also comprises persons residing temporarily (for under one year) abroad as well as foreign nationals registered in the Finnish Population Information System whose stay in Finland will last for at least one year (<http://vrk.fi/en/registration-of-foreign-citizens>).

The sample of the Labour Force Survey is drawn twice a year as a stratified random sample from Statistics Finland's population database, which is based on the Central Population Register. The survey is a panel survey in which one person is interviewed five times. The interviews are conducted every three months, apart from the fourth interview which is conducted six months after the third interview. The first and last interviews are 15 months apart. The sample of each month consists of approximately 12,000 persons, which is, on the average, every 300th person in the population. The sample for one survey month consists of five rotation groups which have entered the survey at different points of time. The sample changes gradually so that different persons answer the questions during three consecutive months. In consecutive quarters three-fifths of the respondents are the same. In consecutive years the overlap is two-fifths. The data are collected from all weeks of the year.

The data content of the survey varies by survey round. Certain basic pieces of information are inquired in the first round and checks are then made in subsequent rounds to see whether they have remained unchanged. The data content is wider in the last, or the fifth, survey round which includes the household section, the annual ad hoc section with variable topics, as well as certain additional questions concerning the main job.

Statistics Finland's interviewers collect the data with computer-assisted telephone interviews. In 2016, around 101,000 persons were interviewed for the Labour Force Survey. The response rate of this survey was 70 per cent, on average.

The results from the sample are weighted to correspond to the entire population aged between 15 and 74. The effects of non-response on the results are corrected by using so-called weight calibration, in which weighting is used to produce the correct population distributions by area, gender and age. Information from the job seeker register of the Ministry of Economic Affairs and Employment is also used as supplementary data.

In most European countries the Labour Force Survey data are collected from a sample of households, which means that all members of a household living at the same address are interviewed at the same time. Besides Finland, Sweden, Denmark and Switzerland are the only other countries where the sample is based on individual persons, i.e. only the target persons drawn into the sample are interviewed. However, the EU regulation also requires data concerning households and in Finland this has been solved by exploiting the panel nature of the Labour Force Survey. In addition to the basic interview, a household interview is conducted on the fifth interview round to ascertain the members who belong to the household of the

interviewee and the activity of the household members aged 15 to 74 on the labour market. So that the data would describe the whole population, a supplementing sample is added to it of households in which all members are aged 75 or over. Children under the age of 15 and persons aged over 75 are not interviewed in the Labour Force Survey, but certain data are created for them based on register data to describe their status on the labour market.

The household data enable examinations of, for instance, employment in the family and the joint status of both spouses on the labour market. In 2018, the household data comprised approximately 44,000 persons who formed around 19,000 households. The household data for the Labour Force Survey have been collected by the present method since 2003 and the data can mainly be published starting from the year 2004.

Like all figures collected with a sample survey, the figures of the Labour Force Survey are so called estimates. An **estimate** is an estimation of a quality of the population derived by applying a mathematical procedure (estimation) to sample observations.

## Statistical description of the reliability of estimation

The estimation procedure of the Labour Force Survey is based on the calibration of weights in which the original sample weights calculated on the basis of the sample design are adjusted with a regression model to get the desired population distributions.

The accuracy of estimates is evaluated on the basis of their standard error. **Standard error** (the square root of the sample variance) describes how neatly the value of the parameter estimated from the observations is concentrated around the parameter of the population. The magnitude of the standard error is affected by sample design, the number of observations in the relevant population or subgroup, variation due to the distribution of the research variable as well as properties of the mathematical formula.

Key figures of reliability derived from the standard error are the confidence intervals and relative standard error. **Confidence interval** describes the width of the range in which the real value of the parameter is relative to the estimate calculated from the sample. When calculating the confidence interval, the desired level of risk is fixed. The five per cent risk level applied in the Labour Force Survey means that if the samples were drawn again, in 95 cases out of one hundred the real value of the parameter would be within the confidence interval and in five cases out of one hundred it would be outside the confidence interval.

**Relative standard error** (variation coefficient) is the percentage share of the standard error of the estimate. Proportioning the standard error to the estimate's size removes the effect of the scale of the variable. Hence the values of the relative standard error of different variables and the values of the standard error of the same variable in different subgroups are easy to compare with one another.

## 3. Correctness and accuracy of data

The reliability of the figures of the Labour Force Survey are affected by non-response (see above), measurement errors and random variation due to sampling.

Measurement errors arise from, among other things, differences in interpreting or understanding of the questions, respondents' inability to recall or unwillingness to give certain information, or erroneous recording of answers. Development and testing of the questions, interviewer instructions and user interface, and training of interviewers are measures used to contain measurement errors.

Random variation due to sampling means that figures calculated from different samples differ somewhat from each other. When evaluating roughly the magnitude of random variation due to sampling in different situations, the main principle is that **1) the larger the sample is from which the figures are calculated and 2) the larger the population described by the figures is, the less uncertainty due to sampling there will be in the figures**. For instance, quarterly figures are more accurate than monthly figures in describing the same phenomenon, as quarterly data have been collected by interviewing three times the number of persons interviewed for monthly data. Annual figures are the most accurate. The latter principle means that the figures of the employed and the unemployed, that is the estimates, based on a sample of the same size are the more accurate the larger the subgroup they apply to. As the relevant subgroup becomes

smaller, random variation due to sampling increases. Therefore the numbers of the unemployed in different age groups or in different areas are not as reliable as the number of all the unemployed.

Inaccuracy due to sampling is assessed with the **standard error** of the estimate. The magnitude of the standard error is influenced by the size of the sample and the variance of the variable being investigated. Standard error can be used to calculate the **confidence interval**, within which the value of the population lies with a certain probability. The **95 per cent confidence interval** used in the Labour Force Survey is **the interval within which the real value of the characteristic being investigated lies with 95 per cent probability**. For instance, if the estimate for the number of unemployed persons in a certain month is 230,000 and its standard error is 7,700, the 95 per cent confidence interval of the number of the unemployed is  $230,000 \pm 15,100$ , i.e. 214,900 to 245,100 persons. The share to be added to the estimate or deducted from it is obtained by multiplying the estimate's standard error with the 1.96 coefficient of the 95 per cent confidence interval. This share describes uncertainty caused by sampling and is called the **margin of error**.

Examples of the accuracy of the number of the employed and the unemployed by size of subgroup

To illustrate the magnitude of random variation, examples of the estimates of different numbers of the employed and the unemployed, their margins of error and other key figures of reliability are presented below in Tables 1 to 2. The magnitude of random variation in the examples is a rough estimate of the upper boundary of random variation, when the figure being investigated is **a correspondingly large estimate of the number of the employed or the unemployed by gender and age of the youngest child**.

We can see from Table 1 that if the annual estimate of the employed in the subgroup is around 53,000 persons, the real number of the employed lies, with a probability of 95 per cent, within the range of  $53,000 \pm 5,000$  persons. Estimates are the more accurate the bigger subgroup they concern. If, say, we compare two groups of mothers with children aged under 18 "youngest child aged one to two" and "youngest child aged 7 to 17", we see that the first group's 95 per cent confidence interval,  $53,000 \pm 5,000$  persons, is bigger (relative standard error 4.8%) than for the latter group's estimate (relative standard error 1.9%) relative to the size of the estimate

The size and reliability of the estimates for the employed and the unemployed also has an effect on other key figures calculated on the basis of these estimates, such as estimates for employment and unemployment rates. The relative standard errors for the employment rates of these groups also differ considerably from each other.

**Table 1. Examples of the accuracy of annual estimates for the household section of the Labour Force Survey: Mothers of children aged under 18, 20 to 59**

		Annual estimate	Margins of error for the annual estimate (95% confidence interval)	Standard error	Relative standard error (%)
<b>Employed, persons</b>	<b>Total</b>	385 000	± 10 700	5 500	1,4
Age of youngest child	Under 1	19 000	± 2 900	1 500	8,0
	1 to 2	53 000	± 5 000	2 500	4,8
	3 to 6	97 000	± 6 200	3 200	3,3
	7 to 17	216 000	± 8 000	4 100	1,9
<b>Unemployed, persons</b>	<b>Total</b>	32 000	± 4 000	2 100	6,5
Age of youngest child	Under 3	8 000	± 2 100	1 100	13,0
	3 to 6	8 000	± 2 100	1 100	13,0
	7 to 17	15 000	± 2 700	1 400	9,3
<b>Employment rate, %</b>	<b>Total</b>	73,6	± 1,4	0,7	0,9
Age of youngest child	Under 1	36,7	± 4,8	2,4	6,6
	1 to 2	54,9	± 3,7	1,9	3,5
	3 to 6	79,2	± 2,6	1,3	1,7
	7 to 17	85,6	± 1,5	0,8	0,9
<b>Unemployment rate, %</b>	<b>Total</b>	7,6	± 0,9	0,5	6,2
Age of youngest child	Under 3	10,2	± 2,5	1,3	12,3
	3 to 6	8,1	± 2,0	1,0	12,4
	7 to 17	6,5	± 1,1	0,6	8,9

**Table 2. Examples of the accuracy of quarterly estimates of different sizes: the numbers of the employed and the unemployed by gender, age and region.**

		Annual estimate	Margins of error for the annual estimate (95% confidence interval)	Standard error	Relative standard error (%)
<b>Employed, persons</b>	<b>Total</b>	433 000	± 11 400	5 800	1,4
Age of youngest child	Under 1	45 000	± 4 700	2 400	5,3
	1 to 2	82 000	± 6 200	3 200	3,9
	3 to 6	106 000	± 6 600	3 400	3,2
	7 to 17	201 000	± 7 800	4 000	2,0
<b>Unemployed, persons</b>	<b>Total</b>	22 000	± 3 500	1 800	8,0
Age of youngest child	Under 3	8 000	± 2 300	1 200	14,0
	3 to 6	4000	± 1 500	800	18,0
	7 to 17	10 000	± 2 200	1 100	11,5
<b>Employment rate, %</b>	<b>Total</b>	90,1	± 1,0	0,5	0,6
Age of youngest child	Under 1	89,1	± 3,4	1,8	2,0
	1 to 2	87,1	± 2,8	1,4	1,6
	3 to 6	91,6	± 1,9	1,0	1,1
	7 to 17	90,7	± 1,3	0,7	0,7
<b>Unemployment rate, %</b>	<b>Total</b>	4,9	± 0,7	0,4	7,8
Age of youngest child	Under 3	6,2	± 1,6	0,8	13,5
	3 to 6	3,8	± 1,3	0,7	17,7
	7 to 17	4,6	± 1,0	0,5	11,2



## 4. Timeliness and promptness of published data

The results of the Labour Force Survey are released monthly, quarterly and annually. Quarterly and annual results are the averages of monthly results, i.e. they describe the situation on an "average" week during the survey period. Data on labour input are sums of the results of periods. The released data are final. Only seasonal adjustment slightly alters the latest seasonally adjusted monthly results. Monthly data are released approximately three weeks from the end of the survey month. Quarterly data are released simultaneously with the last monthly data of each quarter. Quarterly data are statistically more reliable than monthly data and contain more detailed data on employment and labour input by industry and more specific regional data. The most detailed results are published in annual statistics. Quarterly deliveries of data are made to Eurostat, the Statistical Office of the European Union, which are used to compile statistics on EU Member States.

## 5. Accessibility and transparency/clarity of data

The results of the Labour Force Survey are published in the Labour market series of Official Statistics of Finland. The key monthly, quarterly and annual results are released on predefined days on the Internet on the home page of the Labour Force Survey [http://tilastokeskus.fi/til/tyti/index\\_en](http://tilastokeskus.fi/til/tyti/index_en). The links on the home page lead to, among other things, a description of the statistics, concepts and definitions as well as the free of charge tables from the statistical databases of the Labour Force Survey (StatFin). Data are also available over the Internet from Statistics Finland's chargeable time series database (ASTIKA). Eurostat publishes quarterly and annual Labour Force Survey data on its own website.

The annual publication of Labour Force Statistics contains a review of the past statistical reference year, definitions of key concepts, descriptions of the classifications used, time series and annual tables as well as this Quality description of the Labour Force Survey. In addition, Labour Force Survey data are published regularly in the Statistical Yearbook of Finland and in the Bulletin of Statistics. Chargeable special compilations can be requested from the Labour Force Survey information service.

Labour Force Survey data are not released outside Statistics Finland in identifiable form (Statistics Act 280/2004, Personal Data Act 523/1999). Data can be released only on the basis of a separate application for licence to use statistical data and without identifiers for scientific research and statistical surveys. Data adjusted for the EU Labour Force Survey are delivered to Eurostat, the Statistical Office of the European Union without identifiers. The Labour Force Survey data are protected according to the protection class defined in Statistics Finland's data protection guidelines. A register description can be found (in Finnish) at: [http://www.stat.fi/meta/rekisteriselosteet/rekisteriseloste\\_tyovoimatutkimus.html](http://www.stat.fi/meta/rekisteriselosteet/rekisteriseloste_tyovoimatutkimus.html)

Information service: [tyovoimatutkimus@stat.fi](mailto:tyovoimatutkimus@stat.fi) and tel. +358 29 551 1000.

## 6. Comparability of statistics

A monthly Labour Force Survey, initially called Labour Force Inquiry, has been conducted since 1959. During this time the data content, data collection methods and methodology have been revised on several occasions. A comparable time series of the key data exists since 1989.

Initially, the inquiry with a somewhat limited data content was conducted as a postal survey. In 1976, the data content was expanded and the methodology modernised. During 1977 to 1993, the survey consisted of a monthly inquiry and supplementary annual interviews conducted over the telephone. The data collection of the monthly inquiry was changed in 1983 from a postal survey to telephone interviews, as a result of which non-response dropped from 30 to 4 per cent.

When Finland joined the European Union the Labour Force Survey was harmonised with the EU Labour Force Survey. At the beginning in 1995 to 1998, the data for the EU Labour Force Survey were collected as a separate interview survey in March to May. The monthly survey was gradually revised to correspond to the EU Labour Force Survey. In 1997, the contents of the monthly survey were extended, the data collection was changed into computer-assisted telephone interviews (CATI) and the concepts and definitions were harmonised to correspond better than before to the EU and ILO guidelines and recommendations.

The definition of an unemployed person was revised in May 1998 and the published time series were retrospectively revised to correspond with the new definitions starting from 1989.

In April 1999, the Labour Force Survey's data content was widened again with the combining of the monthly survey and the EU Labour Force Survey into a single, continuous Labour Force Survey. As of the beginning of 2000, the survey changed over into a continuous survey week, whereas previously data for each month had been collected in one survey week. This changeover affected data on working days and hours worked, which are not fully comparable with earlier data starting from the beginning of the year 2000. Starting from 2003 the data content of the survey widened with the so-called household module which is collected from a subsample. A new data collection questionnaire was introduced in 2008. In consequence of this the data content of the survey became slightly revised and collection of some of the data was started from a subsample, whose data are only used as annual data.

## 7. Coherence and consistency/uniformity

In addition to the Labour Force Survey Statistics Finland's statistics related to the labour market include the Job Vacancy Survey, the Quality of Work Life Survey, statistics on labour disputes, Occupational accident statistics as well as register-based employment statistics (RES).

Of these the RES provide data on the labour market activities of the population. The data in them differ from those of the Labour Force Survey due to the data collection method and the definitions of the employed and the unemployed. The RES are based on total data derived from the administrative data of different authorities. The RES data on a person's activities mainly describe the last week of the year. RES data on unemployment are based on the Ministry of Economic Affairs and Employment's register of unemployed job seekers. The statistics take good 18 months to complete, preliminary data are ready within about a year. Since the employment statistics represent total data, they offer better regional data (incl. data by municipality) as well as better data on small population groups, e.g. small industries and occupations, than the Labour Force Survey. The concepts of the employment statistics based on administrative registers are not internationally comparable.

Statistics Finland uses the Labour Force Survey data in the compiling of National Accounts. This is among the reasons why the definitions of the key concepts in the Labour Force Survey, such as population, employment and working hours, follow as closely as possible the recommendations for National Accounts (the UN System of National Accounts, SNA, and the European System of Accounts, ESA). The Labour Force Survey definition of the public sector is somewhat different from the classification of sectors in National Accounts. In National Accounts, conscripts are classified as employed according to ILO recommendations, whereas in the Labour Force Survey conscripts are outside the labour force.

The results from the Finnish Labour Force Survey published by Eurostat, the Statistical Office of the European Union, differ from those published in Finland in that conscripts are not included in the statistics published by Eurostat. In most EU countries conscripts are not included in the target group of the Labour Force Survey, i.e. population living in private households. This causes differences especially in the results concerning the 15 to 24 age group. In the figures published by Finland persons performing their conscript duty are included in the population outside the labour force. In some cases differences can arise from the fact that Eurostat's figures include the whole population living in private household whereas in Finland the figures only include those between the ages of 15 and 74.

The Ministry of Economic Affairs and Employment also publishes data on unemployed job seekers. The Ministry's data derive from register-based Employment Service Statistics, which describe the last working day of the month. The definition of unemployed applied in the Employment Service Statistics is based on legislation and administrative orders which make the statistical data internationally incomparable. In the Employment Service Statistics an unemployed person is not expected to seek work as actively as in the Labour Force Survey. There are also differences in the acceptance of students as unemployed. More detailed information about differences between the statistics is available at:

[http://stat.fi/til/tyti/tyti\\_2019-09-13\\_men\\_001\\_en.html](http://stat.fi/til/tyti/tyti_2019-09-13_men_001_en.html).

## Inquiries

Tarja Nieminen                    029 551 3561  
Head of Department in  
charge:  
Hannele Orjala

tyovoimatutkimus@stat.fi  
www.stat.fi  
Source: Labour Force Survey 2020. Statistics Finland