Suomen virallinen tilasto
Finlands officiella statistik
Official Statistics of Finland

Labour Market 2017

Labour Force Survey

Families and work in 2016

Employment rate is higher for fathers of families with children than for other men

The employment rate for fathers with children aged under 18 was 90 per cent in 2016. In contrast, men without children aged under 18 had a clearly lower employment rate, only 73 per cent. Women's employment rates were close to each other regardless of whether they had children aged under 18 or not. These data derive from Labour Force Survey 2016, Families and work.

**Employment rates for fathers and men without children in 2012 to 2016, aged 20 to 59, %**
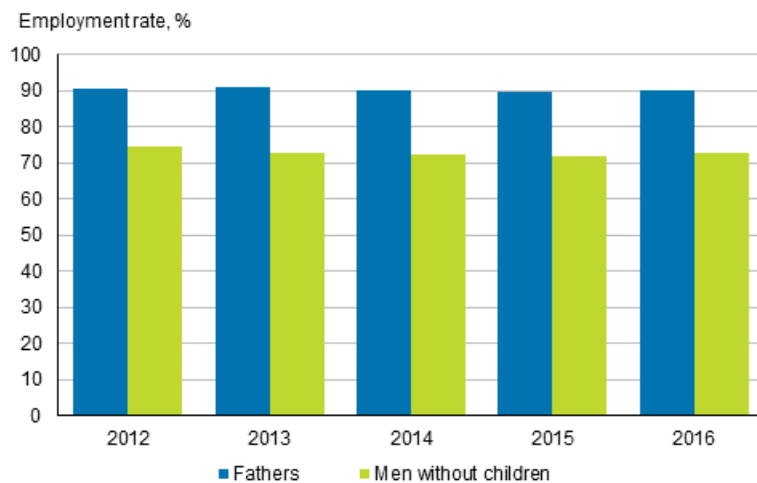
The employment rate of men varies according to family type. In 2016, the employment rate for fathers of families with children was 90 per cent, while it was only 73 per cent for men without children. The situation has remained more or less the same in the past five years.

Despite child care, the employment rate of mothers was 74 per cent, or on the same level as that of men without children. The employment rate of women without children was slightly higher, that is, 77 per cent.

Children's age affects the employment of mothers. Mothers of children aged under one are most often at home looking after their children but mothers go back to work when children grow. When the youngest

child is aged three to six, mothers' employment rate has already risen to the level of women without children, close to 80 per cent.

Employment rates for mothers aged 20 to 59 by age of their youngest child in 2012 to 2016, %
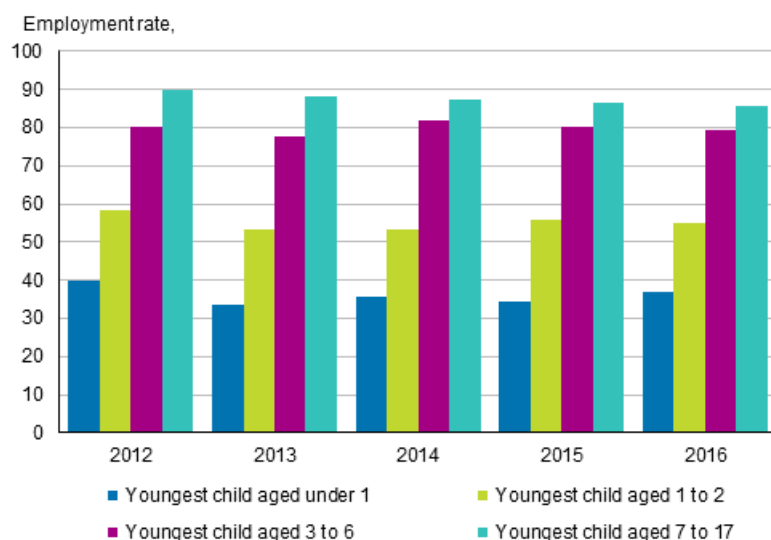
Links

Labour Force Survey tables in databases: http://tilastokeskus.fi/til/tyti/tau_en.html.

Information about changes in employment and employment relationships in 2016 can be found in earlier annual Labour Force Survey review Labour Force Survey 2016, time series data 2007 to 2016 Labour Force Survey 2016, time series data 2007 to 2016.

The change in the definition of employed with an effect on the employment rate of mothers with small children is described in an article of the Tieto&trendit periodical http://tietotrendit.stat.fi/mag/article/213/ (in Finnish).

Employment among mothers with small children in Finland and Sweden is compared in an article of the Tieto&trendit periodical http://tietotrendit.stat.fi/mag/article/215/ (in Finnish).

Contents

Tables

Figures

1. Introduction

This Labour Force Survey publication contains statistical data on families and work. The data are based on interview data derived from the household section of the Labour Force Survey. The publication focuses on the age group 20 to 59 as concerns both children's parents and persons without children used as the comparison group, because over 99 per cent of the parents of children aged under 18 belong to this age group. Families with children are families that have at least one child aged under 18 living in the same household. In this review, people without children are those who do not have children aged under 18 living in their household.

At the end of 2016, families with children numbered 570,000. The number of families with children has fallen over the past ten years by an average of 2,000 families per year. At the turn of the year, the average number of children belonging to a family with underage children was 1.85. Of these families, 43 per cent had one child and 39 per cent had two children. Of the families with children, 59 per cent were families of married couples and 20 per cent were those of cohabiting couples. Around one-fifth were single-parent families. (Source: Families 2016, Statistics Finland.)

This publication examines changes that have occurred in the employment of mothers and fathers of families with children and in the use of family leaves between 2012 and 2016. The appendix tables contain data for all of these years.

When assessing employment among parents of small children, the international definition of the employed used in the Labour Force Survey should be considered: In the Labour Force Survey, employed are those who have worked for at least one hour during the survey week. Employed are also those employees absent from work whose reason for absence is maternity or paternity leave, illness or accident or whose absence has lasted under three months. Based on this definition, employed persons include especially a high number of mothers of small children looking after their child at home. Self-employed persons are always included in employed even if they had not worked during the survey week.

Sections 2 and 3 of this publication describe the employment of the parents of families with children and Section 4 explains their activity in more detail. The used concepts and the household data for the Labour Force Survey are described in more detail in Sections 5 and 6.

2. Employment of mothers and fathers has remained stable

In 2016, the **employment rate** was 79 per cent, on average, for men aged 20 to 59, and 76 per cent for women. However, the variation of the employment rate by family type is large especially for men: in 2016, the employment rate for fathers of families with children was 90 per cent while for men without children it was 73 per cent. The situation has remained more or less the same in the past five years. (Figure 1.)

Figure 1. Employment rates for fathers and men without children in 2012 to 2016, aged 20 to 59, %

Women's employment does not vary by family type as much as men's but the employment rate of women without children has been slightly higher than that of mothers with children aged under 18. In 2016, the employment rate of women without children was 77 per cent and that of mothers of families with children was 74 per cent. Women's employment rate has remained quite even between 2012 and 2016 (see Figure 2).

Figure 2. Employment rates for mothers and women without children in 2012 to 2016, aged 20 to 59, %
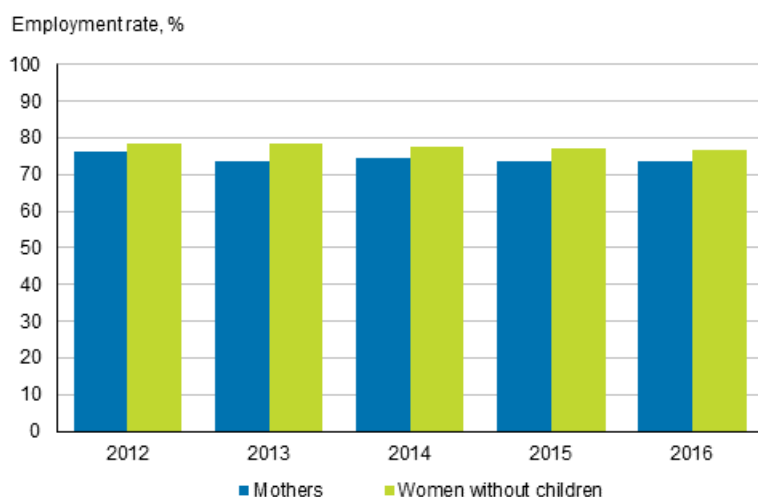
In 2016, the **unemployment rate** for fathers of children aged under 18 was clearly lower (5%) than for men who did not have underage children (11%). In contrast, women's unemployment rates were at the same level (8%) regardless of whether they had underage children or not.

3. Labour market position of parents in families with children

The number of children in the family affects the employment of mothers. The employment rate of fathers has for several consecutive years been around 90 per cent regardless of the number of children. On average, 76 per cent of mothers with one or two children were employed, while of mothers with at least three children 66 per cent were employed in 2016 (Figure 3). The employment rate of mothers with three or more children was in 2012 and 2016 the same, or 66 per cent. In turn, the employment of mothers with one child aged under 18 has fallen from 2012 to 2016. Seventy-eight per cent of mothers of one-child families were still employed in 2012, but only 74 per cent in 2016.

Figure 3. Employment rates for fathers and mothers aged 20 to 59 by number of children in 2016, %
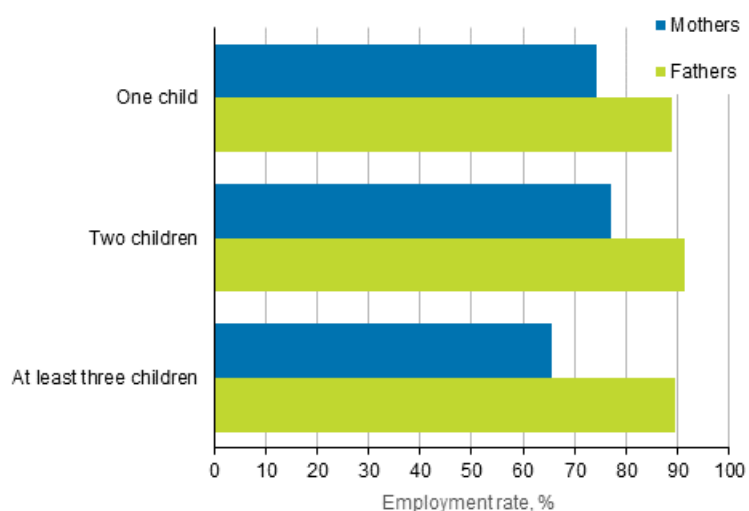
The age of the youngest child in the family has an effect on mothers' employment, especially when the child is small. However, mothers' employment rate rises fast as the child grows (Figure 4, Appendix table 1). While 37 per cent of mothers of children aged under one were employed in 2016, this was so for as many as over one-half of mothers of children aged one to two and for 79 per cent of mothers of children aged three to six. Eighty-six per cent of mothers with school-age children were employed in 2016, though the share of employed has fallen from 2012, when their share was 90 per cent.

Figure 4. Employment rates for mothers aged 20 to 59 by age of their youngest child in 2012 to 2016, %
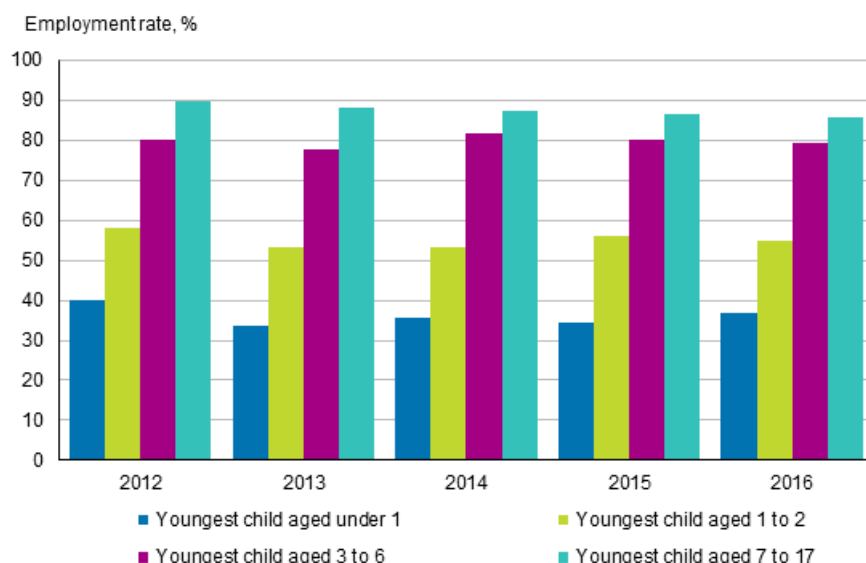
In families with underage children with two supporters, fathers usually have shorter family leaves than mothers. During paternity leave or child care leave of under three months, fathers are classified as employed so family leaves have little impact on the employment rate of fathers. Fathers' employment rate is around 90 per cent regardless of the age of their children. Mothers' employment rate is lower when children are small.

Both the father and mother were employed in 67 per cent of all two-supporter families with children in 2016. When the youngest child is between three and six years old, in 76 per cent of the two-parent families both parents are employed and this is so for 79 per cent of the parents of school-age children. (Figure 5.)

When the youngest child grows, the number of families with children where both parents are non-employed, that is, unemployed or in the inactive population, decreases. When the youngest child is aged under three, both parents were non-employed in seven per cent of two-supporter families. When the youngest child is of school-age, both parents were non-employed in only three per cent of families.

Figure 5. Labour market position of parents in families with children with two supporters aged 20 to 59 by age of youngest child in 2016, %
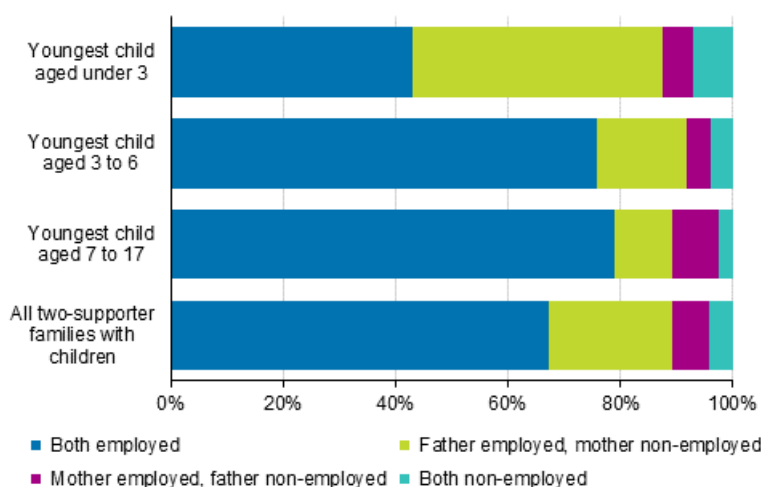
4. More mothers with small children than before are working

However, the employment rate does not describe how many parents of young children actually work. In the Labour Force Survey employed are those who have worked for at least one hour during the survey week. In addition, employed are also those employees absent from work on the survey week who have a job and who are on maternity or paternity leave or whose absence for other reason has lasted under three months. Thus, especially in the case of mothers of small children the employed include plenty of mothers who are actually at home looking after a child. Respectively, mothers on child care leave are mostly classified as persons outside the labour force because the care leave is often taken after the maternity leave and parental leave, which means that the total duration of the leave is over three months. This section discusses parents who have been at work during the survey week.

Figures 6 and 7 show those mothers of children aged under three who were actually working as a separate group. They also describe separately mothers on family leave (maternity, parental or child care leave) from work and those without a valid employment contract who are looking after their children at home. The fourth group consists of those who have said their principal activity is something else than child care. This group includes such as students and unemployed persons.

Very few mothers with children under the age of one were working in 2016 but as many as nearly one-half of mothers with children aged one (Figure 6). When the youngest child was three to six years old, a majority of mothers had returned to work. Among all mothers of school-age children 85 per cent were working.

Figure 6. Working and family leaves among mothers aged 20 to 59 by age of their youngest child in 2016, %
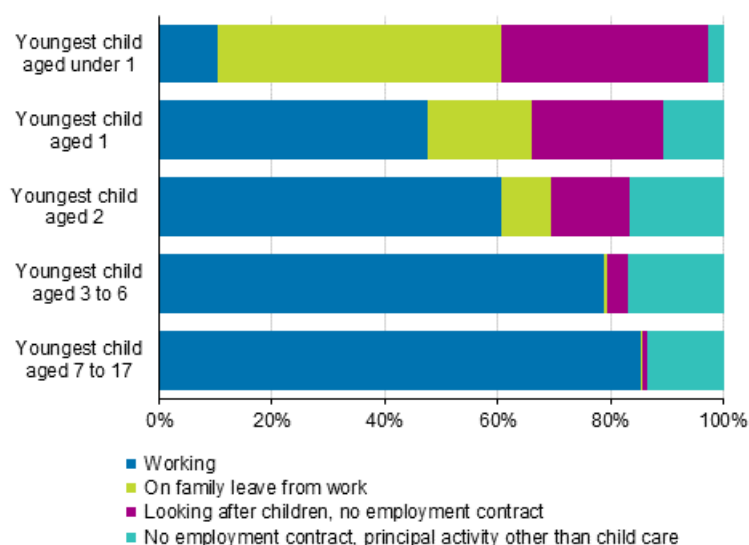
In 2016, fathers had family leaves most commonly at the stage when the family's youngest child was one to two years old. Then five per cent of fathers were looking after a child/children either on family leave from work or without an employment relationship.

Mothers' education has a connection to working. Mothers with tertiary level education often have a valid employment contract throughout their family leave and they return to work faster than other mothers. This is already visible among mothers of children aged under three, but the differences get emphasised once the children have turned three. When the youngest child is aged three to six, as many as 88 per cent of mothers with tertiary level education are working, while this is so for 76 per cent among mothers with upper secondary level education. Thirty-six per cent of mothers without post-basic level education were working at this stage.

Figure 7 shows changes having taken place in recent years in working and family leaves among mothers of children aged under three. Over the past three years, the share of working mothers has grown slightly and the share of mothers on family leave from work and at home without an employment relationship has decreased. In 2016, good one-third of mothers with children aged under three were at home without an

employment relationship. This group includes both mothers that primarily care for children at home and those whose main activity is something else besides caring for a child, such as studying or unemployment.

Figure 7. Working and family leaves of mothers aged 20 to 59 with children aged under three in 2012 to 2016, %
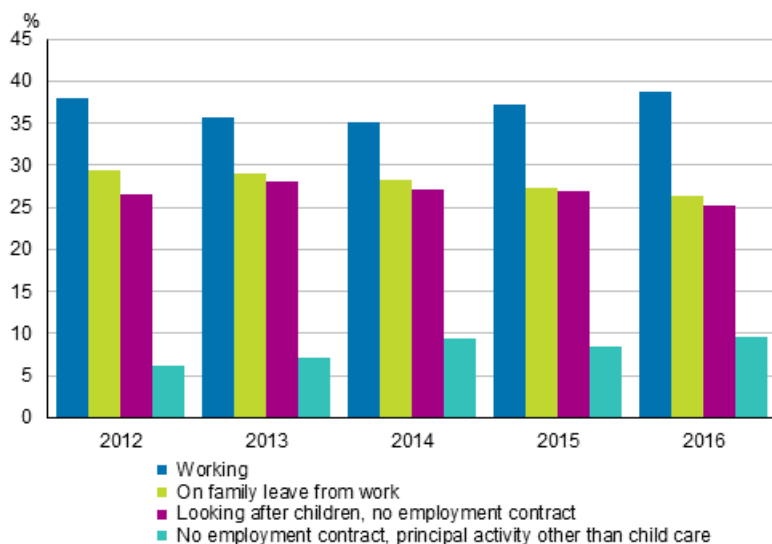
Mothers who have no valid employment relationship and who said their principal activity was child care can be considered stay-at-home mothers. Interpreted like this, six per cent of mothers with one or two children can be classified as stay-at-home mothers. Seventeen per cent of mothers with at least three children were stay-at-home mothers in 2016, while three years earlier, the corresponding share was 23 per cent. Among all families with children, around one-fifth had at least three children.

Figure 8. Working and family leaves among mothers aged 20 to 59 by number of children in 2016, %
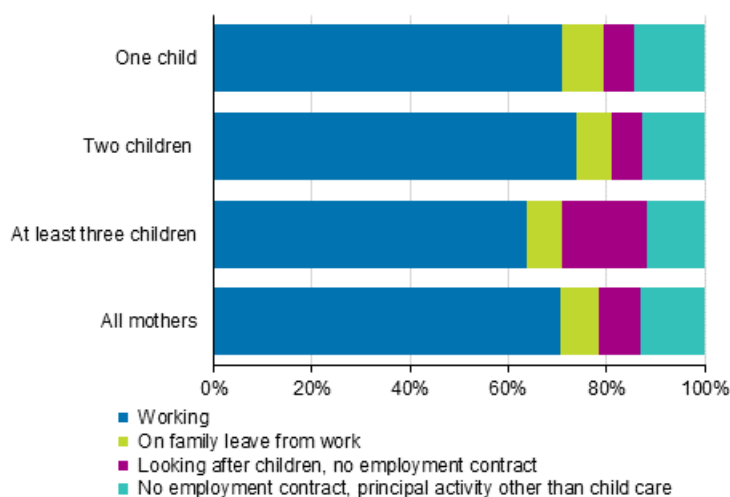
5. Concepts

Parents of families with children - mothers and fathers - are women and men living in the same household with their own or their spouse's children aged under 18. As the sample contains only a few same-sex parents of families with children, they are not included in the analyses.

Women and men without children are women and men without children aged under 18 living in the same household. Thus they include

- Persons without any children;
- So-called remote parents whose child lives or is registered at the address of the other parent; and
- Parents whose children are aged over 18 or have already moved into their own household.

Age of the youngest child: Age of the family's youngest (only) child in years. A child aged one has turned one, but is under two. Correspondingly, a child aged two has turned two, but is not yet three.

Family leaves comprise maternity and paternity leave, parental leave (incl. so-called "daddy" month) and child care leave. They are leaves which the parents of small children are entitled to take by law in order to care for the child until the youngest child reaches the age of three. The employment contracts of the parents remain valid during these family leaves. Persons on maternity or paternity leave and persons on leaves lasting under three months are classified as employed in the Labour Force Survey.

A person is *employed* if he/she has during the survey week been in gainful employment for at least one hour against pay in money or fringe benefits, or to make a profit, or has been temporarily absent from work. Persons absent from work during the survey week are 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. Mothers on child care leave are mostly classified as persons outside the labour force because the care leave is often taken after the maternity leave and parental leave, which means the total duration of the leave is over three months. Employed persons can be employees, self-employed or unpaid workers in enterprises of a family member.

The *employment rate* is the ratio of employed persons to the population of the same age. The employment rate of the total population is calculated as the ratio of employed persons aged 15 to 64 to the population of the same age.

The *work attendance rate* is the percentage share of those at work in all employed persons.

The *unemployment rate* is the ratio of unemployed persons to the active population (labour force) of the same age, i.e. employed and unemployed persons. The unemployment rate of the total population is calculated as the ratio of unemployed persons aged 15 to 74 to the active population (labour force) of the same age.

Level of education: Those with *basic level education* have at most nine years of education. They have qualifications from primary school, middle school or comprehensive school. Those with *upper secondary level education* have 11 to 12 years of education. These qualifications include matriculation examination, vocational qualifications attained in one to three years and initial vocational qualifications. *Tertiary level education* includes lowest level tertiary education (e.g. technician engineer, diploma in business and administration), lower-degree level tertiary education (university of applied sciences and lower university degrees) and higher-degree level tertiary education (master, specialist's degrees in medicine) and doctorate or equivalent level education (licentiate's and doctor's degrees). The description of *levels of education* (Classification of Education 2011, levels of education) in Finnish is available at the link: http://www.stat.fi/meta/kas/koulutusaste_en.html.

6. The household section of the Labour Force Survey provides data on employment in families

The data presented in this publication are based on the interview data obtained in the Labour Force Survey. The data collected with the Labour Force Survey are used to compile statistics on labour force participation, employment, unemployment and working hours of the population aged between 15 and 74. The data content of the survey is based on an EU Regulation. 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 the Labour Force Survey the same person is usually interviewed five times during 18 months. In addition to the basic interview, a household interview is conducted in 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. The data obtained in this way enable examinations of, for instance, the joint status of both spouses on the labour market. However, this publication centres only on families whose parents belong to the age group of those aged 20 to 59.

In 2016, the household data comprised approximately 50,000 persons who formed 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.

Appendix tables, time series 2012–2016

Appendix table 1. Employment rates by age of youngest child in 2012 - 2016, population aged 20-59

		Employment rate, %				
		Year				
		2012	2013	2014	2015	2016
Both sexes	Total	78,9	77,9	77,5	76,9	77,2
	Parents of children under 18 years total	83,2	82,1	81,9	81,6	81,5
	- youngest child under 3 years	71,3	67,5	68,3	69,4	67,9
	- youngest child under 1 years	66,0	60,7	62,8	62,2	62,8
	- youngest child between 1 and 2 years	74,3	71,1	71,3	73,5	70,7
	- youngest child between 3 and 6 years	84,9	85,0	85,4	84,5	85,2
	- youngest child between 7 and 17 years	90,1	89,9	88,9	87,9	88,0
	No children under 18 years	76,4	75,5	75,0	74,2	74,8
Males	Total	80,2	79,2	78,5	78,0	78,8
	Parents of children under 18 years total	90,6	91,2	90,1	89,9	90,1
	- youngest child under 3 years	91,4	89,1	90,0	91,2	87,8
	- youngest child under 1 years	92,2	88,3	90,5	90,5	89,1
	- youngest child between 1 and 2 years	90,9	89,6	89,7	91,6	87,0
	- youngest child between 3 and 6 years	90,0	92,6	89,3	89,2	91,6
	- youngest child between 7 and 17 years	90,4	91,9	90,5	89,4	90,7
	No children under 18 years	74,7	73,0	72,5	71,8	73,0
Females	Total	77,5	76,5	76,4	75,7	75,6
	Parents of children under 18 years total	76,2	73,6	74,4	73,8	73,6
	- youngest child under 3 years	51,6	46,4	47,2	48,2	48,6
	- youngest child under 1 years	40,0	33,6	35,6	34,3	36,7
	- youngest child between 1 and 2 years	58,2	53,2	53,4	56,0	54,9
	- youngest child between 3 and 6 years	80,1	77,8	81,7	80,0	79,2
	- youngest child between 7 and 17 years	89,9	88,1	87,4	86,6	85,6
	No children under 18 years	78,4	78,3	77,7	76,9	76,8

Appendix table 2. Employment rates by number of children in 2012 - 2016, population aged 20-59

		Employment rate, %				
		Year				
		2012	2013	2014	2015	2016
Both sexes	Total	78,9	77,9	77,5	76,9	77,2
	Parents of children under 18 years total	83,2	82,1	81,9	81,6	81,5
	- 1 child	83,5	83,7	82,4	81,3	81,1
	- 2 children	85,5	84,8	84,6	84,4	84,1
	- 3 or more children	78,3	74,0	75,9	76,5	77,4
	No children under 18 years	76,4	75,5	75,0	74,2	74,8
Males	Total	80,2	79,2	78,5	78,0	78,8
	Parents of children under 18 years total	90,6	91,2	90,1	89,9	90,1
	- 1 child	89,6	89,5	88,9	89,0	89,0
	- 2 children	91,4	92,8	91,6	90,8	91,4
	- 3 or more children	91,3	91,6	89,5	89,8	89,5
	No children under 18 years	74,7	73,0	72,5	71,8	73,0

		Employment rate, %				
		Year				
		2012	2013	2014	2015	2016
Females	Total	77,5	76,5	76,4	75,7	75,6
	Parents of children under 18 years total	76,2	73,6	74,4	73,8	73,6
	- 1 child	78,0	78,4	76,5	74,4	74,2
	- 2 children	79,7	77,2	77,8	78,2	77,1
	- 3 or more children	65,5	57,0	62,6	63,6	65,7
	No children under 18 years	78,4	78,3	77,7	76,9	76,8

Appendix table 3. Activity rates by age of youngest child in 2012 - 2016, population aged 20-59

		Activity rate, %				
		Year				
		2012	2013	2014	2015	2016
Both sexes	Total	84,9	84,3	84,3	84,5	84,2
	Parents of children under 18 years total	87,1	86,5	86,9	86,6	86,9
	- youngest child under 3 years	74,8	72,0	73,4	73,3	73,6
	- youngest child under 1 years	68,4	64,0	66,7	65,2	66,5
	- youngest child between 1 and 2 years	78,5	76,4	77,0	77,9	77,4
	- youngest child between 3 and 6 years	89,7	90,1	91,1	91,1	90,5
	- youngest child between 7 and 17 years	93,8	93,8	93,4	92,9	93,2
	No children under 18 years	83,6	83,1	82,8	83,3	82,7
Males	Total	87,0	86,3	86,2	86,2	86,3
	Parents of children under 18 years total	94,3	95,0	94,9	94,5	94,6
	- youngest child under 3 years	94,9	94,0	95,0	94,6	93,6
	- youngest child under 1 years	94,8	93,0	95,6	94,2	94,2
	- youngest child between 1 and 2 years	94,9	94,6	94,6	94,8	93,2
	- youngest child between 3 and 6 years	93,8	95,6	94,8	94,5	95,2
	- youngest child between 7 and 17 years	94,2	95,3	94,9	94,4	95,0
	No children under 18 years	83,1	81,9	81,7	81,9	82,0
Females	Total	82,7	82,2	82,2	82,7	82,0
	Parents of children under 18 years total	80,3	78,5	79,5	79,3	79,7
	- youngest child under 3 years	55,2	50,6	52,4	52,6	54,1
	- youngest child under 1 years	42,3	35,6	38,4	36,5	39,0
	- youngest child between 1 and 2 years	62,5	58,6	59,9	61,5	62,0
	- youngest child between 3 and 6 years	85,9	84,9	87,7	87,9	86,1
	- youngest child between 7 and 17 years	93,5	92,5	92,0	91,5	91,6
	No children under 18 years	84,2	84,4	83,9	84,8	83,4

Appendix table 4. Activity rates by number of children in 2012 - 2016, population aged 20-59

		Activity rate, %				
		Year				
		2012	2013	2014	2015	2016
Both sexes	Total	84,9	84,3	84,3	84,5	84,2
	Parents of children under 18 years total	87,1	86,5	86,9	86,6	86,9
	- 1 child	87,4	88,2	87,7	86,6	86,7
	- 2 children	89,3	88,5	89,1	89,1	89,5
	- 3 or more children	82,2	79,4	80,9	81,5	82,2
	No children under 18 years	83,6	83,1	82,8	83,3	82,7
Males	Total	87,0	86,3	86,2	86,2	86,3
	Parents of children under 18 years total	94,3	95,0	94,9	94,5	94,6
	- 1 child	93,5	94,3	94,2	93,6	93,8
	- 2 children	95,0	95,8	96,0	95,2	96,1
	- 3 or more children	94,5	95,0	94,1	94,7	93,6
	No children under 18 years	83,1	81,9	81,7	81,9	82,0
Females	Total	82,7	82,2	82,2	82,7	82,0
	Parents of children under 18 years total	80,3	78,5	79,5	79,3	79,7
	- 1 child	81,9	82,6	81,9	80,3	80,5
	- 2 children	83,8	81,7	82,6	83,3	83,2
	- 3 or more children	70,1	64,3	68,1	68,8	71,3
	No children under 18 years	84,2	84,4	83,9	84,8	83,4

Appendix table 5. Unemployment rates by age of youngest child in 2012 - 2016, population aged 20-59

		Unemployment rate, %				
		Year				
		2012	2013	2014	2015	2016
Both sexes	Total	7,0	7,6	8,0	9,0	8,3
	Parents of children under 18 years total	4,5	5,1	5,7	5,8	6,2
	- youngest child under 3 years	4,8	6,3	7,0	5,3	7,7
	- youngest child between 3 and 6 years	5,3	5,7	6,3	7,3	5,9
	- youngest child between 7 and 17 years	3,9	4,2	4,8	5,3	5,6
	No children under 18 years	8,6	9,1	9,4	10,9	9,5
Males	Total	7,8	8,3	8,9	9,6	8,7
	Parents of children under 18 years total	3,9	4,0	5,1	4,8	4,9
	- youngest child under 3 years	3,7	5,2	5,2	3,6	6,2
	- youngest child between 3 and 6 years	4,0	3,2	5,8	5,6	3,8
	- youngest child between 7 and 17 years	3,9	3,6	4,6	5,2	4,6
	No children under 18 years	10,1	10,9	11,3	12,4	11,0
Females	Total	6,3	6,9	7,1	8,4	7,8
	Parents of children under 18 years total	5,1	6,3	6,4	6,9	7,6
	- youngest child under 3 years	6,5	8,3	10,0	8,3	10,2
	- youngest child between 3 and 6 years	6,7	8,4	6,9	9,0	8,1
	- youngest child between 7 and 17 years	3,9	4,7	5,0	5,4	6,5
	No children under 18 years	7,0	7,3	7,4	9,3	7,9

Appendix table 6. Unemployment rates by number of children in 2012 - 2016, population aged 20-59

		Unemployment rate, %				
		Year				
		2012	2013	2014	2015	2016
Both sexes	Total	7,0	7,6	8,0	9,0	8,3
	Parents of children under 18 years total	4,5	5,1	5,7	5,8	6,2
	- 1 child	4,5	5,1	6,1	6,1	6,4
	- 2 children	4,3	4,2	5,1	5,3	6,0
	- 3 or more children	4,8	6,8	6,2	6,2	5,9
	No children under 18 years	8,6	9,1	9,4	10,9	9,5
Males	Total	7,8	8,3	8,9	9,6	8,7
	Parents of children under 18 years total	3,9	4,0	5,1	4,8	4,9
	- 1 child	4,2	5,1	5,7	4,9	5,1
	- 2 children	3,7	3,0	4,6	4,6	4,8
	- 3 or more children	3,4	3,6	4,8	5,2	4,4
	No children under 18 years	10,1	10,9	11,3	12,4	11,0
Females	Total	6,3	6,9	7,1	8,4	7,8
	Parents of children under 18 years total	5,1	6,3	6,4	6,9	7,6
	- 1 child	4,8	5,1	6,5	7,4	7,8
	- 2 children	4,9	5,5	5,7	6,1	7,3
	- 3 or more children	6,6	11,4	8,0	7,5	7,8
	No children under 18 years	7,0	7,3	7,4	9,3	7,9

Appendix table 7. Working and family leaves among 20 to 59-year-old mothers by age of their youngest child in 2016

	Total	Working	On family leave from work	Looking after children, no employment contract	No employment contract, principal activity other than child care
	1000 persons	1000 persons	1000 persons	1000 persons	1000 persons
Parents of children under 18 years total	522	369	41	44	69
- youngest child under 1 years	51	5	25	19	1
- youngest child between 1 and 2 years	97	52	14	19	13
- youngest child between 3 and 6 years	122	96	1	4	21

Appendix table 8. Working and family leaves among 20 to 59-year-old mothers by number of children in 2016

	Total	Working	On family leave from work	Looking after children, no employment contract	No employment contract, principal activity other than child care
	1000 persons	1000 persons	1000 persons	1000 persons	1000 persons
Mothers of children under 18 years total	522	369	41	44	69
- 1 child	219	156	18	14	31
- 2 children	200	148	15	12	25
- 3 or more children	103	65	8	18	12

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.

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

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_2016-03-03_men_001.html.

Concepts:

- A person is **employed** if he/she has during the survey week been in gainful employment for at least one hour against pay in money or fringe benefits, or to make a profit, or has been temporarily absent from work. Persons absent from work during the survey week are classified as employed if the reason for absence is own illness or maternity or paternity leave or the absence has lasted for under three months. The employed are divided into employees, self-employed or unpaid family workers.

- 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. Explanations for other concepts of the Labour Force Survey can be found at: http://tilastokeskus.fi/til/tyti/kas_en.html.

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 2016, the household data comprised approximately 50,000 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 ± 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 ± 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 ± 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 (%)
Employed, persons	**Total**	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
Unemployed, persons	**Total**	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
Employment rate, %	**Total**	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
Unemployment rate, %	**Total**	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 (%)
Employed, persons	**Total**	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
Unemployed, persons	**Total**	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
Employment rate, %	**Total**	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
Unemployment rate, %	**Total**	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. 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

Information service: 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://tilastokeskus.fi/til/tyti/tyti_2016-08-23_men_001_en.html.