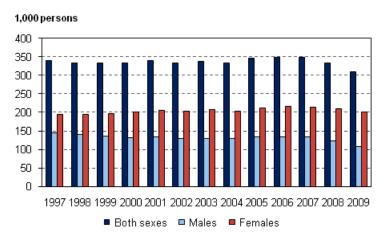
# Labour Force Survey

Employment relationships and working hours in 2009

### Number of persons employed fixed-term decreased in 2009

According to Statistics Finland's Labour Force Survey, the number of persons working in fixed-term employment relationships decreased in 2009. Fixed-term employment contracts decreased most in manufacturing. The number of persons doing hired work was also lower in 2009 than in the previous year. These data derive from the annual Labour Force Survey review Employment relationships and working hours in 2009.



#### Number of fixed-term employees aged 15-74 by sex in 1997-2009

The general worsening of the employment situation in 2009 was also reflected in fixed-term employment relationships. A total of 310,000 employees worked in fixed-term employment relationships in 2009. Their number was 22,000 lower than one year earlier. The number of employees with fixed-term contracts was the lowest ever since 1997, or the starting year of a fully comparable times series.

Fifteen per cent all employees were employed fixed-term in 2009. The share of fixed-term employees was around 18 per cent among female employees and around 11 per cent among male employees.

Fixed-term employment relationships decreased mainly in the private sector, whereas in the public sector their number remained almost unchanged. Fixed-term employment relationships diminished most in manufacturing where the number of employees with fixed-term contracts was 12,000 lower in 2009 than in the previous year.

The number of persons doing hired work also fell in 2009, when they numbered 23,000, or around one per cent of all employees.

### Links

Updated tables of the Labour Force Survey: <u>http://tilastokeskus.fi/til/tyti/tau\_en.html</u>.

The first annual Labour Force Survey review, <u>Employment and unemployment in 2009</u>, takes an overview of changes in employment in 2009.

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Appendix table 22. Average regular weekly working hours in main job of part-time employees aged 15-74 by occupation (Occupational Classification 2001) and sex in 2009
Quality Description: Labour force survey

### 1. Fixed-term employment relationships decreased in 2009

The general worsening of the employment situation in 2009 was also reflected in fixed-term employment relationships. A total of 310,000 employees worked in fixed-term employment relationships in 2009. This was 22,000 persons fewer than in the previous year. There were altogether 2,123,000 employees in Finland in 2009, which was 84,000 fewer than in 2008.

Approximately 15 per cent of employees worked in fixed-term employment relationships in 2009. The share was slightly smaller than in 2008. In 2009, the number of employees with fixed-term contracts was the lowest since 1997, or the starting year of a fully comparable times series. The share of fixed-term employees among all employees was also at its lowest in 2009. (Figures 1 and 2).

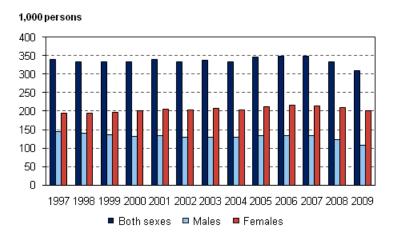
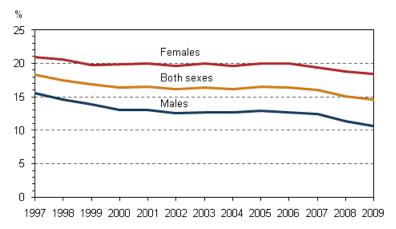


Figure 1. Number of fixed-term employees aged 15–74 by sex in 1997–2009

Fixed-term employment is more usual among women than men. In 2009, altogether 201,000 of all fixed-term employees were women while 109,000 were men. The share of fixed-term employees was around 18 per cent among female employees and around 11 per cent among male employees. Both the number and the share of persons employed fixed-term decreased among both genders. Especially male employees' fixed-term employment relationships decreased from the previous year in 2009.





Fixed-term employment shows clear seasonal fluctuation, for the number of fixed-term employment relationships always goes up in the second and third quarters of the year. In 2009, the reduction in the number of fixed-term employment contracts appears to have mainly affected summer jobs, as there were

37,000 fewer fixed-term employees in the second and third quarters of 2009 than in the respective quarters of the previous year.

Fixed-term employment relationships decreased mainly in the private sector (-21,000) whereas in the public sector their number remained almost unchanged. Fixed-term employment relationships diminished most in the industry of manufacturing where their number was 12,000 lower in 2009 than in the previous year. Fixed-term employment contracts also decreased in the industries of construction, and wholesale and retail trade. Health and social work was the only industry where the number of fixed-term employment relationships increased.

### 1.1 Two out of three fixed-term employees could not find permanent work

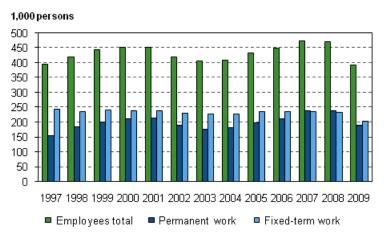
To an employee, working fixed-term can be either a desired or involuntary form of employment. Approximately one-quarter of fixed-term employees did not want a permanent job. The majority of them were aged between 15 and 24. Summer workers are a typical group of persons working voluntarily in fixed-term jobs.

However, a more common reason for working in a fixed-term employment relationship is that permanent work cannot be found. In 2009, the lack of permanent work was the reason why around 67 per cent of fixed-term employees worked in fixed-term jobs. In 2009, there were 209,000 fixed-term employees on the labour market who had not found a permanent job even though they would have wanted one. Of them, 137,000 were women and 72,000 men. Involuntary working under fixed-term contracts increases with age.

The number of persons working involuntarily in fixed-term jobs grew by 10,000 from 2008 to 2009. Over the same time period the number of fixed-term employees whom fixed-term employment suited decreased by 16,000. Thus, on the one hand the weakening of the employment situation was seen as reduced hiring of summer workers and, on the other, as increased discretion in hiring people for permanent jobs.

### 1.2 Around one-half of new employment contracts were fixed-term

New employment contracts with a duration of under one year numbered 392,000 in 2009. This was 78,000 fewer than in 2008. Just over one-half of all new employment contracts were fixed-term. In 2007 and 2008, the share of permanent contracts of all new employment contracts was exceptionally larger than that of fixed-term contracts. (Figure 3)



# Figure 3. New employment contracts with a duration of under one year of employees aged 15–74 in 1997–2009

There is a clear difference between women and men in whether a new employment relationship is fixed-term or permanent. In 2009, approximately 58 per cent of women's and around 44 per cent of men's new employment contracts were fixed-term. A larger proportion of men's new employment contracts have

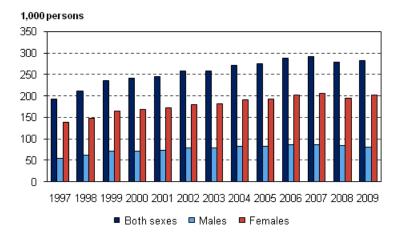
been permanent almost throughout the examination period since 1997. By contrast, a clearly larger proportion of women's new employment contracts have been fixed-term over the same time period.

# 2. Number of persons employed part-time has remained almost unchanged

Persons employed part-time numbered 343,000 in 2009. Of them, 238,000 were employees and 60,000 self-employed persons or assisting family members. The Labour Force Survey data on part-time employment is based on the respondents' own reporting. The following only concerns part-time employees.

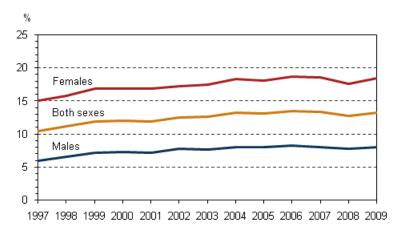
In 2009, the number of part-time employees remained almost unchanged from the previous year. Part-time employees made up 13 per cent of all employees in 2009. The prevalence of part-time employment has not altered much in the past few years. However, the longer term trend in part-time employment has been a growing one since 1997. (Figures 4 and 5).

Part-time employment is more widespread among women than men. Among female employees, persons employed part-time numbered 202,000, or 18 per cent, and among male employees 81,000, or 8 per cent. Approximately three-quarters of the employees employed part-time worked in the private sector. Part-time working was most frequent in the female dominated industries of wholesale and retail trade, and health and social work.



#### Figure 4. Part-time employees aged 15-74 by sex in 1997-2009

Figure 5. Share of part-time employees among employees aged 15–74 by sex in 1997–2009



### 2.1 Studying the commonest reason for working part-time

Doing part-time work suits the life situation of many of those who are employed part-time. By contrast, part-time employment can be viewed as one form of underemployment in cases where the employee has not succeeded in finding full-time work even if he/she would have wanted it.

The commonest reason for working part-time was studying. Approximately 30 per cent of part-time employees quoted studying as the reason for working part-time. Indeed, working part-time is widespread among young people, for as many as 40 per cent of employees between the ages of 15 and 24 worked part-time in 2009.

Other reported reasons relating to life situation were caring for children or relatives, and health reasons. Approximately 24,000 persons, almost all of them women, reported caring for children or relatives as the reason for working part-time.

For just under one-third of part-time employees the reason for working part-time was that full-time work was not available. In 2009, the number of employees working part-time involuntarily was 81,000. Of them, 59,000 were women and 22,000 men.

One important reason for working part-time is part-time retirement. According to the Labour Force Survey, 36,000 persons were in part-time retirement in 2009. In the 55–64 age group, the share of part-time employees was 17 per cent. The reasons for working part-time had not changed much between 2008 and 2009.

### 3. Number of hired workers decreased

Data on hired workers have been collected in the Labour Force Survey since 2008. In 2009, the number of persons doing hired work was 23,000. This is 8,000 fewer than in 2008. Thus, the economic recession has also reduced the use of hired workers. Approximately one-half of the persons doing hired work are women.

The share of hired workers among all employees was only one per cent or so in 2009. Thus, doing hired work is quite a marginal form of working on the Finnish labour market. Hired work is mainly done by young people, just under 4 per cent of 15 to 24-year-olds were employed as hired workers.

Hired work is divided between several industries. It is commonest in wholesale and retail trade, hotel and restaurant activities, and in manufacturing. Each of these industries employed a couple of thousands of hired workers. Between 2008 and 2009, the number of hired workers decreased most in the industry of manufacturing.

# *4. Women most often in supervisory posts in the local government sector*

Since 2008, the Labour Force Survey has asked employees about the performing of supervisory tasks. In 2009, a total of 19 per cent of employees reported that they were performing some kind of supervisory tasks. Fourteen per cent of women and 25 per cent of men acted as supervisors. The proportions were unchanged from 2008.

The share of women among the employees with supervisory duties was 38 per cent. Women's share of supervisors was the largest, or as high as 61 per cent, in the municipalities. In the central government sector, 36 per cent, and in the private sector 32 per cent of supervisors were women. Change from 2008 had only taken place in the central government sector where women's share of supervisors had risen from 30 to 36 per cent.

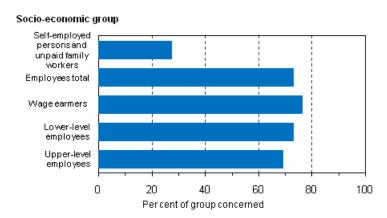
### 5. Working hours

Working hours change quite slowly. Working hours and hours worked fluctuate according to changes in employment and in the structure of the wage and salary earning population. For instance, if part-time work becomes more widespread than full-time work, the number of average weekly working hours falls. Working hours also vary by industry and occupation, as well as by employer sector.

The concepts of working hours used in statistics are regular weekly working hours, hours worked per week and hours worked per year. *Regular weekly working hours* mean the hours an employee normally works inclusive of regular overtime hours. The average of regular weekly working hours is influenced by the form or working hours, i.e. whether full-time or part-time work is concerned. *Hours worked per week* are lowered by absences during the survey week and raised by overtime and extra hours worked. *Hours worked per year* is a calculated concept in which the number of all hours worked in a year are divided by the average number of employed persons or employees.

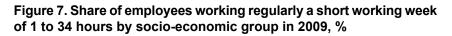
### 5.1 Most common working week is 35 to 40 hours

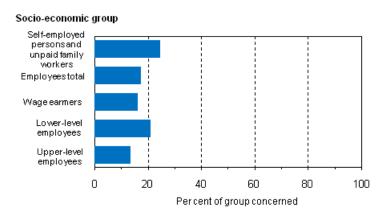
The vast majority (73 per cent) of employees worked a regular week of 35 to 40 hours in 2009. There was very little variation in this between different employee groups. Only one in four of self-employed persons and assisting family members worked a regular week of 35 to 40 hours.



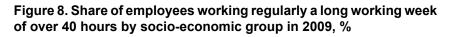
## Figure 6. Share of persons working a regular week of 35 to 40 hours by socio-economic group in 2009, %

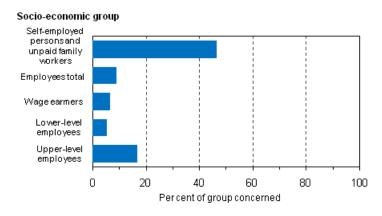
Figure 7 shows the shares of employees and self-employed persons with a short working week of under 35 hours in 2009. Approximately 17 per cent of employees had a short working week. Around one-fifth of lower-level employees had a short working week. Short working weeks were less widespread among upper-level employees. Those with a short working week most typically worked 30 to 34 hours per week. One self-employed person and assisting family member in four had a short working week.





Approximately nine per cent of employees had a long working week of over 40 hours. Among all employees, upper-level employees had most often a long regular working week. Of them17 per cent did long weekly working hours. Long regular weekly working hours were most widespread among self-employed persons and assisting family members, of whom almost 46 per cent regularly worked long hours. (Figure 8.)





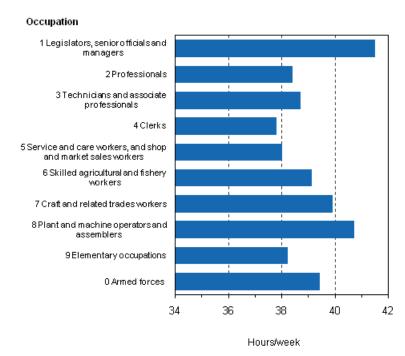
#### 5.2 Men's working week in full-time employment longer than women's

Average number of regular working hours per week in the main job have hardly changed at all between 2008 and 2009. Employees' average regular weekly working hours totalled 36.5 hours and their hours worked 35.2 hours per week. The longest weekly hours were worked by self-employed persons whose average regular weekly hours totalled 43 and hours worked 41,6 hours per week in 2009. Men's regular working hours and hours worked are longer than women's (table 1). Hours worked are shortened by holidays and other absences and lengthened by worked overtime hours.

## Table1. Average of employees' regular weekly working hours and hours actually worked per week in full-time and part-time work in 2009

	Regular workin	ng hours	Hours actually worked		
	Full-time work Part-time work		Full-time work	Part-time work	
Total	39.0	19.8	37.4	20.2	
Men	39.9	18.3	38.5	19.0	
Women	38.1	20.5	36.3	20.6	

Managers' and senior officials' regular working hours per week in full-time work was on average 41.5 hours (Figure 9). Apart from them, only process and transport workers do a regular working week of slightly over forty hours. Office and customer service workers do the shortest working week.

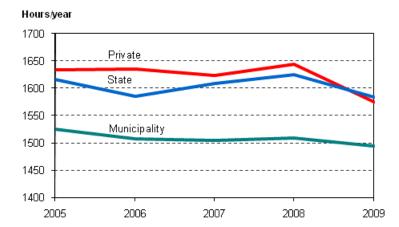


# Figure 9. Average of employees' regular weekly working hours in full-time work by occupation in 2009

### 5.3 Annual hours worked decreased in 2009

Figure 10 compares hours worked per year by employer sector. In recent years, annual hours worked have been almost identical in the private and central government sectors. Hours worked per year decreased clearly last year, which could be explained by the economic situation which lead to temporary lay-offs and shortening of working hours. Annual hours worked also decreased in the central government sector.

In the local government sector hours worked per year are clearly below those in other sectors, and this has hardly changed at all.



### Figure 10. Annual hours worked of employees by employer sector in 1997–2009

The number of women's hours worked per year is around 200–250 lower than men's. Women, for instance, work more often part-time than men. Family leaves also shorten women's hours worked more than men's. Two-thirds of all employees working part-time are women.

The difference between women and men in the number of hours worked was largest in hotel and restaurant activities last year: female employees' working year was over 300 hours shorter than men's. Both men's and women's annual hours worked diminished last year. Men's annual hours worked decreased by an average of 70 hours and women's by just under 40 hours between 2008 and 2009.

### 5.4 Women do more shift work than men

Saturday and Sunday work and shift work represent working hours that deviate from the usual daywork that is done on weekdays. Around 17 per cent of employed persons and 14 per cent of employees did Saturday work during the survey week in 2009 (Table 2). Approximately 12 per cent of employed persons and 9 per cent of employees did Sunday work during the survey week. More than one in four of female employees and around one in five of men did shift work.

Table 2. Share of employed persons and employees having done shift work and week-end work
during the survey week in 2009, %

	Employed		Employees				
	Saturday work Sunday work		Saturday work	Sunday work	Shift work		
Total	17	12	14	9	23		
Men	17	11	12	8	19		
Women	18	12	16	11	27		

### Notes to the tables

Small figures describing under 4,000 persons presented in the tables should be viewed with reservations because they are based on a low number of respondents.

#### Symbols used in tables

Magnitude less than half of unit employed	0	
Magnitude nil or too uncertain for presentation		

The category "Industries total" includes the category "Industry unknown".

The data shown in Appendix tables 11 to 13 are available starting from 2008.

Due to rounding, the sums in the tables may not always agree.

Unrounded figures are used in the Change column.

### 2007-2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Sex	Age group					
Both	15-74	348	332	310	-22	-6,7
sexes	15-64	344	329	307	-22	-6,8
	15-24	116	108	95	-14	-12,8
	25-34	101	101	96	-6	-5,4
	35-44	56	53	51	-3	-5,1
	45-54	48	42	41	-1	-2,5
	55-74	26	27	28	1	3,4
Males	15-74	133	123	109	-14	-11,6
	15-64	132	121	108	-14	-11,4
	15-24	52	47	39	-9	-17,9
	25-34	38	37	34	-4	-9,6
	35-44	16	15	14	-2	-10,9
	45-54	16	12	13	1	8,1
	55-74	11	11	10	-2	-14,1
Females	15-74	214	209	201	-8	-3,8
	15-64	213	208	199	-8	-4,1
	15-24	64	61	56	-5	-8,9
	25-34	63	64	62	-2	-2,9
	35-44	40	38	37	-1	-2,7
	45-54	32	29	27	-2	-6,9
	55-74	15	16	19	3	15,6

#### Appendix table 1. Temporary employees (fixed-term job) by age and sex in 2007 - 2009

# Appendix table 2. Temporary employees (fixed-term job) aged 15-74 by employer sector and sex in 2007 - 2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Sex	Employer sector					
Both sexes	Employer sector total (incl. employer sector unknown)	348	332	310	-22	-6,7
	Private sector	198	183	162	-21	-11,3
	Public sector	149	147	146	-1	-0,7
	-state	37	36	36	-1	-2,2
	-municipality	112	111	111	0	-0,2
Males	Employer sector total (incl. employer sector unknown)	133	123	109	-14	-11,6
	Private sector	93	84	72	-12	-14,4
	Public sector	40	38	36	-2	-5,0
	-state	18	19	17	-1	-7,9
	-municipality	22	20	19	0	-2,3
Females	Employer sector total (incl. employer sector unknown)	214	209	201	-8	-3,8
	Private sector	105	98	90	-9	-8,7
	Public sector	109	109	110	1	0,8
	-state	19	18	18	1	3,9
	-municipality	90	92	92	0	0,3

# Appendix table 3. Temporary employees (fixed-term job) aged 15-74 by industry (TOL 2008) in 2007 - 2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Industry	TOL 2008					
Industries total	00-99	348	332	310	-22	-6,7
A, B Agriculture, forestry and fishing; mining and quarrying	01-09	7	7	6	-1	-16,3
C-E Manufacturing; electricity, gas, steam and air conditioning and water supply; sewerage and waste management	10-39	42	35	23	-12	-34,7
F Construction	41-43	18	16	13	-3	-19,6
G Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47	31	30	28	-3	-8,7
H Transportation and storage	49-53	11	12	10	-1	-12,8
I Accommodation and food service activities	55-56	11	12	12	0	-0,7
J Information and communication	58-63	7	7	6	-1	-14,7
K-L Financial, insurance and real estate activities	64-68	5	5	5	0	7,2
M, N Professional, scientific and technical activities ; administrative and support service activities	69-82	36	30	28	-2	-6,8
O Public administration and defence; compulsory social security	84	16	15	14	0	-0,7
P Education	85	46	47	46	-1	-1,8
Q Human health and social work activities	86-88	85	83	86	3	3,4
R-U Arts, entertainment and recreation; other service activities	90-99	31	31	31	0	-0,1

### Appendix table 4. Temporary employees (fixed-term job) aged 15-74 by reason for fixed-term employment in 2008 - 2009, %

	Year		Change	
	2008	2009	2008/2009	
	Per cent	Per cent	Percentage points	
Reason for fixed-term employment				
Fixed-term employees total	100,0	100,0	0,0	
In practical training related to studies	6,2	5,7	-0,5	
Could not find a permanent job	60,8	66,7	5,9	
Does not want a permanent job	28,7	24,9	-3,9	
On trial period	3,4	2,0	-1,5	
Don't know or unknown	0,6	0,4	-0,1	

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Sex	Age group					
Both	15-74	351	338	343	6	1,7
sexes	15-64	329	316	322	6	2,0
	15-24	106	105	102	-3	-2,9
	25-34	55	56	58	2	4,4
	35-44	46	42	43	1	1,7
	45-54	48	39	43	3	8,7
	55-74	96	96	98	2	2,2
Males	15-74	119	116	115	-1	-1,0
	15-64	105	102	103	1	0,7
	15-24	35	35	35	-1	-1,6
	25-34	17	16	18	2	12,9
	35-44	9	8	10	2	17,8
	45-54	13	12	12	0	0,4
	55-74	45	45	40	-4	-9,6
Females	15-74	232	221	228	7	3,1
	15-64	224	214	220	6	2,6
	15-24	71	70	67	-2	-3,6
	25-34	38	39	40	0	0,9
	35-44	37	34	33	-1	-2,3
	45-54	35	27	31	3	12,3
	55-74	51	51	57	6	12,5

### Appendix table 5. Part-time employed persons by age and sex in 2007 - 2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Sex	Age group					
Both	15-74	292	279	283	3	1,1
sexes	15-64	283	272	275	3	1,2
	15-24	102	100	97	-3	-3,0
	25-34	49	49	51	2	3,4
	35-44	39	35	36	0	1,2
	45-54	37	31	33	2	6,2
	55-74	65	64	66	2	3,2
Males	15-74	87	84	81	-3	-3,9
	15-64	82	80	77	-2	-3,1
	15-24	33	33	32	-1	-2,8
	25-34	15	14	15	1	7,2
	35-44	7	6	7	1	9,7
	45-54	8	8	7	-1	-12,1
	55-74	24	23	20	-3	-12,6
Females	15-74	205	195	202	6	3,3
	15-64	201	192	198	6	3,0
	15-24	69	67	65	-2	-3,1
	25-34	35	35	36	1	2,0
	35-44	32	29	29	-0	-0,6
	45-54	29	23	26	3	12,6
	55-74	41	40	45	5	12,4

### Appendix table 6. Part-time employees by age and sex in 2007 - 2009

# Appendix table 7. Part-time employed persons aged 15-74 by employer sector and sex in 2007 - 2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Sex	Employer sector					
Both sexes	Employer sector total (incl. employer sector unknown)	351	338	343	6	1,7
	Private sector	280	266	269	3	1,1
	Public sector	70	69	73	4	5,2
	-state	13	12	12	0	1,9
	-municipality	57	57	60	3	5,9
Males	Employer sector total (incl. employer sector unknown)	119	116	115	-1	-1,0
	Private sector	105	102	101	-1	-1,4
	Public sector	14	13	14	1	4,1
	-state	4	4	5	1	21,3
	-municipality	10	9	9	0	-3,0
Females	Employer sector total (incl. employer sector unknown)	232	221	228	7	3,1
	Private sector	176	164	168	4	2,7
	Public sector	55	56	59	3	5,4
	-state	8	8	8	-1	-7,3
	-municipality	47	48	51	4	7,7

#### Appendix table 8. Part-time employees aged 15-74 by employer sector and sex in 2007 - 2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Sex	Employer sector					
Both sexes	Employer sector total (incl. employer sector unknown)	292	279	283	3	1,1
	Private sector	221	208	208	1	0,3
	Public sector	70	69	73	3	5,0
	-state	13	12	12	0	1,3
	-municipality	57	57	60	3	5,8
Males	Employer sector total (incl. employer sector unknown)	87	84	81	-3	-3,9
	Private sector	72	70	67	-3	-4,9
	Public sector	14	13	14	0	3,1
	-state	4	4	5	1	19,2
	-municipality	10	9	9	0	-3,8
Females	Employer sector total (incl. employer sector unknown)	205	195	202	6	3,3
	Private sector	150	138	142	4	3,0
	Public sector	55	56	59	3	5,4
	-state	8	8	8	-1	-7,3
	-municipality	47	48	51	4	7,6

Appendix table 9	Part-time employed	persons aged	15-74 by industry	r (TOL 2008) in 2007 - 2009
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		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Industry	TOL 2008					
Industries total	00-99	351	338	343	6	1,7
A, B Agriculture, forestry and fishing; mining and quarrying	01-09	23	23	23	0	-0,4
C-E Manufacturing; electricity, gas, steam and air conditioning and water supply; sewerage and waste management	10-39	21	21	20	-1	-3,7
F Construction	41-43	10	8	9	1	9,1
G Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47	67	64	63	-2	-2,8
H Transportation and storage	49-53	21	19	18	-1	-5,3
I Accommodation and food service activities	55-56	23	25	24	0	-0,9
J Information and communication	58-63	10	10	9	0	-3,9
K-L Financial, insurance and real estate activities	64-68	8	7	8	0	3,0
M, N Professional, scientific and technical activities ; administrative and support service activities	69-82	45	37	40	3	7,8
O Public administration and defence; compulsory social security	84	8	7	7	1	9,3
P Education	85	25	25	27	2	8,7
Q Human health and social work activities	86-88	52	53	56	3	5,7
R-U Arts, entertainment and recreation; other service activities	90-99	37	36	36	0	0,1

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Appendix table 10. Part-time employees aged 15-74 by	V INGUSTRY (TOL 2008) IN 2007 - 2009

		Year			Change	Change
		2007	2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	1000 persons	Per cent
Industry	TOL 2008					
Industries total	00-99	292	279	283	3	1,1
A, B Agriculture, forestry and fishing; mining and quarrying	01-09	5	5	5	-1	-13,8
C-E Manufacturing; electricity, gas, steam and air conditioning and water supply; sewerage and waste management	10-39	18	17	16	-1	-3,7
F Construction	41-43	7	5	5	0	-7,1
G Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47	61	59	58	-1	-2,0
H Transportation and storage	49-53	19	18	16	-2	-10,8
I Accommodation and food service activities	55-56	22	23	23	0	-1,1
J Information and communication	58-63	9	8	8	-1	-7,4
K-L Financial, insurance and real estate activities	64-68	7	7	6	0	-3,6
M, N Professional, scientific and technical activities ; administrative and support service activities	69-82	35	27	29	2	9,0
O Public administration and defence; compulsory social security	84	8	7	7	1	9,4
P Education	85	23	24	26	2	9,5
Q Human health and social work activities	86-88	48	48	51	3	6,4
R-U Arts, entertainment and recreation; other service activities	90-99	30	28	28	1	2,7

# Appendix table 11. Part-time employed persons aged 15-74 by sex and reason for part-time employment in 2008 - 2009

		Year		Change	Change
		2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	Per cent
Sex	Reason for part-time employment				
Both	Persons employed part-time total	338	343	6	1,7
sexes	Full-time work was not available	87	93	7	7,7
	Studying	100	93	-6	-6,4
	Caring for own children or other relatives	28	29	1	3,7
	Health reasons	24	27	3	11,6
	Wants to work part-time for some other reason	99	100	2	1,6
	Don't know or unknown	•			
Males	Persons employed part-time total	116	115	-1	-1,0
	Full-time work was not available	25	29	4	16,5
	Studying	36	35	-1	-1,7
	Caring for own children or other relatives	1	1	0	
	Health reasons	10	10	0	2,5
	Wants to work part-time for some other reason	44	40	-5	-10,6
	Don't know or unknown				
Females	Persons employed part-time total	221	228	7	3,1
	Full-time work was not available	62	64	3	4,1
	Studying	64	58	-6	-9,1
	Caring for own children or other relatives	26	28	1	5,2
	Health reasons	14	17	3	18,0
	Wants to work part-time for some other reason	55	61	6	11,5
	Don't know or unknown	-			

# Appendix table 12. Part-time employees aged 15-74 by sex and reason for part-time employment in 2008 - 2009

		Year		Change	Change
		2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	Per cent
Sex	Reason for part-time employment				
Both	Persons employed part-time total	279	282	4	1,3
sexes	Full-time work was not available	76	81	5	6,1
	Studying	94	87	-7	-7,9
	Caring for own children or other relatives	23	24	2	8,7
	Health reasons	18	21	3	16,5
	Wants to work part-time for some other reason	68	69	1	2,0
	Don't know or unknown				
Males	Persons employed part-time total	84	81	-3	-3,5
-	Full-time work was not available	19	22	2	11,5
	Studying	32	31	-1	-4,1
	Caring for own children or other relatives	1	1	0	-
	Health reasons	7	6	0	-2,7
	Wants to work part-time for some other reason	24	21	-3	-14,3
	Don't know or unknown				-
Females	Persons employed part-time total	195	201	7	3,4
	Full-time work was not available	57	59	2	4,3
	Studying	62	55	-6	-9,8
	Caring for own children or other relatives	21	24	2	10,0
	Health reasons	12	15	3	27,3
	Wants to work part-time for some other reason	43	48	5	11,1
	Don't know or unknown				

#### Appendix table 13. Employees in hired work by age and sex in 2008 - 2009

		Year		Change	Change
		2008	2009	2008/2009	2008/2009
		1000 persons	1000 persons	1000 persons	Per cent
Sex	Age group				
Both sexes	15-74	32	23	-8	-26,5
	15-24	13	9	-4	-33,4
	25-74	19	15	-4	-21,8
Males	15-74	16	10	-6	-35,5
	15-24	6	4	-2	-40,6
	25-74	10	7	-3	-32,2
Females	15-74	16	13	-3	-17,8
	15-24	7	5	-2	-27,0
	25-74	9	8	-1	-11,0

### 2009

## Appendix table 14. Employed persons aged 15-74 by regular weekly working hours in main job, socio-economic group and sex in 2009

		Emplo	yed, 1000 pe	ersons			
		Regula	ar weekly wo	orking hours			
		Total	1-19 hours	20-34 hours	35-40 hours	41-49 hours	50+ hours
Sex							
Both	Employed persons total	2 457	157	293	1 646	151	198
sexes	Employees total	2 123	125	242	1 554	116	77
	- upper-level employees	603	23	58	418	63	39
-	- lower-level employees	816	57	114	598	29	16
	- wage earners	697	45	69	533	25	22
	Self-employed persons and unpaid family workers total	334	32	51	92	35	121
Males	Employed persons total	1 255	59	97	847	96	151
	Employees total	1 029	41	68	785	75	57
	- upper-level employees	324	9	21	225	40	28
	- lower-level employees	212	12	16	162	13	9
	- wage earners	490	20	31	396	22	20
	Self-employed persons and unpaid family workers total	226	17	29	61	21	94
Females	Employed persons total	1 202	99	196	799	55	48
	Employees total	1 094	84	174	769	42	20
	- upper-level employees	279	14	37	194	23	11
	- lower-level employees	604	45	98	436	16	7
	- wage earners	207	25	39	137	3	2
	Self-employed persons and unpaid family workers total	109	15	22	31	13	27

# Appendix table 15. Employees aged 15-74 by regular weekly working hours in main job, employer sector and socio-economic group in 2009

		Employ	yed, 1000 pe	ersons			
		Regula	r weekly wo	orking hours			
		Total	1-19 hours	20-34 hours	35-40 hours	41-49 hours	50+ hours
Employer sector							
Employer	Employees total	2 123	125	242	1 554	116	77
sector total (incl.	- upper-level employees	603	23	58	418	63	39
employer	- lower-level employees	816	57	114	598	29	16
sector unknown)	- wage earners	697	45	69	533	25	22
Private	Employees total	1 459	95	162	1 052	84	61
sector	- upper-level employees	371	13	24	260	45	28
	- lower-level employees	485	42	80	331	19	11
	- wage earners	600	39	57	459	21	21
Public	Employees total	657	30	79	498	32	16
sector	- upper-level employees	231	10	34	158	18	10
	- lower-level employees	329	15	33	266	10	5
	- wage earners	96	5	12	74	4	1

		Male employees, 1,000 persons							
		Regula	Regular weekly working hours						
		Total	1-19 hours	20-34 hours	35-40 hours	41-49 hours	50+ hours		
Employer sector									
Employer sector total (incl.		1 029	41	68	785	75	57		
employer sector unknown)	- upper-level employees	324	9	21	225	40	28		
	- lower-level employees	212	12	16	162	13	9		
	- wage earners	490	20	31	396	22	20		
Private sector	Employees total	844	33	50	646	61	50		
	- upper-level employees	239	6	10	167	32	23		
	- lower-level employees	159	9	13	118	11	8		
	- wage earners	445	18	27	360	18	19		
Public sector	Employees total	182	8	17	138	13	6		
	- upper-level employees	84	3	11	57	8	5		
	- lower-level employees	52	3	3	44	2	0		
	- wage earners	45	2	3	35	4	1		

# Appendix table 16. Male employees aged 15-74 by regular weekly working hours in main job, employer sector and socio-economic group in 2009

## Appendix table 17. Female employees aged 15-74 by regular weekly working hours in main job, employer sector and socio-economic group in 2009

		Female employees, 1,000 persons						
		Regula	Regular weekly working hours					
		Total 1-19 hours 20-34 hours 35-40 hours 41-49 hours 50						
Employer sector								
Employer	Employees total	1 094	84	174	769	42	20	
sector total (incl.	- upper-level employees	279	14	37	194	23	11	
employer	- lower-level employees	604	45	98	436	16	7	
sector unknown)	- wage earners	207	25	39	137	3	2	
Private	Employees total	615	62	112	405	23	11	
sector	- upper-level employees	132	8	14	92	13	5	
	- lower-level employees	325	33	67	213	8	3	
	- wage earners	156	21	30	99	3	2	
Public	Employees total	475	22	62	361	19	10	
sector	- upper-level employees	146	6	23	101	10	5	
	- lower-level employees	277	12	30	221	8	4	
	- wage earners	51	4	9	38	0		

# Appendix table 18. Employed persons aged 15-74 by regular weekly working hours in main job and industry (TOL 2008) in 2009

		Emplo	yed, 1000 p	ersons			
		Regula	Regular weekly working hours				
		Total	1-19 hours	20-34 hours	35-40 hours	41-49 hours	50+ hours
Industry	TOL 2008						
Industries total	00-99	2 457	157	293	1 646	151	198
A, B Agriculture, forestry and fishing; mining and quarrying	01-09	119	10	17	40	11	37
C-E Manufacturing; electricity, gas, steam and air conditioning and water supply; sewerage and waste management	10-39	406	7	20	337	22	19
F Construction	41-43	175	5	8	129	10	22
G Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47	296	26	51	171	19	27
H Transportation and storage	49-53	153	9	17	88	13	25
I Accommodation and food service activities	55-56	85	12	18	44	2	8
J Information and communication	58-63	94	4	7	70	7	5
K-L Financial, insurance and real estate activities	64-68	70	4	5	48	7	6
M, N Professional, scientific and technical activities ; administrative and support service activities	69-82	244	19	29	162	15	18
O Public administration and defence; compulsory social security	84	116	2	6	96	9	3
P Education	85	164	14	41	91	10	7
Q Human health and social work activities	86-88	388	22	48	292	15	10
R-U Arts, entertainment and recreation; other service activities	90-99	138	21	24	74	8	10

## Appendix table 19. Employees aged 15-74 by regular weekly working hours in main job and industry (TOL 2008) in 2009

		Emplo	yees, 1000 j	persons			
		Regula	Regular weekly working hours				
		Total	1-19 hours	20-34 hours	35-40 hours	41-49 hours	50+ hours
Industry	TOL 2008						
Industries total	00-99	2 123	125	242	1 554	116	77
A, B Agriculture, forestry and fishing; mining and quarrying	01-09	38	2	4	26	4	3
C-E Manufacturing; electricity, gas, steam and air conditioning and water supply; sewerage and waste management	10-39	382	5	17	329	20	10
F Construction	41-43	132	3	4	113	6	7
G Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47	257	24	47	162	13	10
H Transportation and storage	49-53	129	7	15	83	11	11
I Accommodation and food service activities	55-56	74	11	17	42	2	2
J Information and communication	58-63	86	3	6	67	7	4
K-L Financial, insurance and real estate activities	64-68	64	3	4	46	6	5
M, N Professional, scientific and technical activities ; administrative and support service activities	69-82	200	14	20	148	11	6
O Public administration and defence; compulsory social security	84	116	2	6	96	9	3
P Education	85	161	13	41	90	10	6
Q Human health and social work activities	86-88	369	20	43	286	12	6
R-U Arts, entertainment and recreation; other service activities	90-99	106	16	17	63	5	4

# Appendix table 20. Average regular weekly working hours in main job of employees aged 15-74 by occupation (Occupational Classification 2001) and sex in 2009

	Regular weekly working hours, hours/week		
	Both sexes	Males	Females
Classification of Occupations 2001			
Occupations total	36,5	38,2	34,9
1 Legislators, senior officials and managers	41,0	41,8	39,5
2 Professionals	36,5	37,4	35,6
3 Technicians and associate professionals	36,7	37,9	35,9
4 Clerks	34,9	36,1	34,6
5 Service and care workers, and shop and market sales workers	33,6	34,8	33,3
6 Skilled agricultural and fishery workers	35,2	36,2	34,2
7 Craft and related trades workers	39,0	39,2	36,9
8 Plant and machine operators and assemblers	39,6	39,8	38,6
9 Elementary occupations	32,7	34,4	31,4
0 Armed forces	39,2	39,5	-

# Appendix table 21. Average regular weekly working hours in main job of full-time employees aged 15-74 by occupation (Occupational Classification 2001) and sex in 2009

	Regular weekly working hours, hours/week		rs, hours/week
	Both sexes	Males	Females
Classification of Occupations 2001			
Occupations total	39,0	39,9	38,1
1 Legislators, senior officials and managers	41,5	42,2	40,2
2 Professionals	38,4	38,8	37,9
3 Technicians and associate professionals	38,7	39,7	38,1
4 Clerks	37,8	38,6	37,6
5 Service and care workers, and shop and market sales workers	38,0	38,9	37,8
6 Skilled agricultural and fishery workers	39,1	40,0	38,2
7 Craft and related trades workers	39,9	39,9	39,1
8 Plant and machine operators and assemblers	40,7	40,9	39,6
9 Elementary occupations	38,2	38,9	37,6
0 Armed forces	39,4	39,5	-

## Appendix table 22. Average regular weekly working hours in main job of part-time employees aged 15-74 by occupation (Occupational Classification 2001) and sex in 2009

	Regular weekly working hours, hours/wee		
	Both sexes	Males	Females
Classification of Occupations 2001			
Occupations total	19,8	18,3	20,5
1 Legislators, senior officials and managers	21,6	20,5	22,6
2 Professionals	18,6	17,2	19,3
3 Technicians and associate professionals	20,0	16,2	21,4
4 Clerks	19,6	18,6	19,8
5 Service and care workers, and shop and market sales workers	21,0	18,9	21,4
6 Skilled agricultural and fishery workers	19,1	18,5	19,6
7 Craft and related trades workers	21,6	21,7	21,3
8 Plant and machine operators and assemblers	21,2	20,9	22,3
9 Elementary occupations	17,8	16,4	18,5
0 Armed forces	-		

### Quality Description: Labour force survey

### 1. Relevance of statistical information

The Labour Force Survey is a sample survey providing monthly, quarterly and annual statistics on participation in the labour market, employment, unemployment and working hours among the population aged between 15 and 74. Approximately 12,000 persons are interviewed each month about their labour market activities during one week. Based on the information given by the respondents, the survey provides an up-to-date and comprehensive picture of the labour force and changes in the labour market.

The results of the survey are used, inter alia, in preparing labour market projections and plans, as support for decision-making and in the follow-up of the employment effects of different measures. Key users of the results are ministries, authorities responsible for regional planning, employers' and employees' organisations, universities and research institutions, international organisations and the European Union. Statistics Finland uses the data, inter alia, in the compilation of the National Accounts. Public attention focuses each month especially on the changes in unemployment and employment from the corresponding month in the previous year.

The current data content of the Labour Force Survey is based mainly on the EU Regulation on the organisation of a labour force sample survey in the Community (Council Regulations No 577/98, 2257/2003 and 430/2005). More detailed information on the European Union Labour Force Survey is available at <a href="http://circa.europa.eu/irc/dsis/employment/info/data/eu\_lfs/index.htm">http://circa.europa.eu/irc/dsis/employment/info/data/eu\_lfs/index.htm</a>.

The Labour Force Survey describes persons. Since 2003, information is obtained from a sub sample also on the structure of households and the activities of all working-age members of a household with regard to the labour market. Since 1999 a unified EU ad hoc- survey with annually changing topics has been conducted in connection with the Labour Force Survey.

The concepts and definitions used in the survey follow the recommendations of ILO, the International Labour Organisation of the UN, and the regulations of Eurostat, the Statistical Office of the European Communities. In the basic classification of the labour market situation, the population is divided into the employed, the unemployed and the economically inactive.

Definitions:

- 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, 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 less than three months. The employed are divided into wage and salary earners, entrepreneurs and unpaid workers in a family member's enterprise.
- A person is **unemployed** if he/she is without work during the survey week, has actively sought employment in the past four weeks as a wage or salary earner or entrepreneur 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 **labour force** comprises all persons aged between 15 and 74 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 can also be described with the concept persons outside the labour force. For information on the other concepts used in the Labour Force Survey see: <a href="http://tilastokeskus.fi/til/tyti/kas\_en.html">http://tilastokeskus.fi/til/tyti/kas\_en.html</a>.

**Statistical classifications** used in the Labour Force Survey include the Standard Industrial Classification (TOL 2008, NAVE Rev. 2) as of the beginning of 2009, the Classification of Occupations 2001 (ISCO-88) and the Classification of Occupations 1987, the Classification of Socio-economic Groups 1989, the

Classification of Education 1997 (ISCED 1997) as well as the regional classifications Major Region, Province, Region and Employment and Economic Development Centre.

### 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 includes also persons residing abroad temporarily (less than a year) as well as foreign nationals registered in the Finnish Population Information System who will reside in Finland at least one year

(http://www.vaestorekisterikeskus.fi/vrk/home.nsf/www/populationinformationsystem). Information is delivered to Eurostat, the Statistical Office of the European Communities, also on persons younger than 15 and aged 75 or older (who are not interviewed). In the survey, age is determined on the basis of real age at the time of the interview. Hence a 14-year-old can belong to the sample but is included only after he/she has turned 15. Correspondingly the most aged persons are left out of the survey when they turn 75.

The sample of the Labour Force Survey is drawn twice a year as a stratified random sample from the Statistics Finland 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 in each month consists approximately of 12,000 persons, which is, on average, every 300th person from the population. The sample consists of five rotation groups which have joined the survey in different months. 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.

Statistics Finland's interviewers collect the data with computer-assisted telephone interviews. In 2008 approximately 116,000 interviews were conducted. The non-response rate of the survey was 20.5 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 region, gender and age. Information of the Ministry of Employment and the Economy's job seeker register is also used as supplementary data.

The figures published in the Labour Force Survey, as figures collected with any sample survey, are so-called estimates. An estimate is an estimation of a quality of the population derived by applying a mathematical operation (estimation) to sample observations. For example, the number of the unemployed in January 2009, which was 184,000 persons, is an estimate of the number of unemployed persons aged between 15 and 74 resulting from such a procedure.

Quarterly and annual estimates are averages of monthly estimates. Working days and working hours are estimated on the basis of the number of calendar days in the relevant month. Quarterly and annual estimates of working days and working hours are sums of monthly estimates.

The employment and unemployment numbers in the Labour Force Survey vary relatively regularly in different months of the year. Variation which occurs annually in similar ways has been removed from the so-called trends which are also published from the Labour Force Survey. The direction of long-term developments and cyclical variations are easier to see from a trend than from unadjusted monthly data. Due to the method used, the last data of the trend are revised somewhat when the data of the following month are inserted into the series. This preliminary nature of trends must be taken into account when drawing conclusions. As from June 2007, the trend components of the time series are calculated with the Tramo/Seats method recommended by Eurostat, the Statistical Office of the European Communities.

### 3. Correctness and accuracy of data

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

Measurement errors arise, inter alia, due to the fact that questions can be understood or interpreted differently and respondents may not report some information. Developing the questionnaire and training the 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 describing the same phenomenon, as quarterly data have been collected by interviewing thrice the number of persons than the monthly data. Annual figures are the most accurate. The second 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 e.g. the numbers of the unemployed in different age groups or in different regions 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 property being investigated lies with a probability of 95 per cent**. For example, the confidence interval of the number of the unemployed in January 2009 is  $184,000 \pm 15,000$ , i.e. 169,000-199,000. The share to be added to the estimate or deducted from it, in this case 15,000, is obtained by multiplying the estimate's standard error, here 7,500 persons, with the coefficient of the 95 per cent confidence interval.

#### 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 95 per cent confidence intervals and other key figures of reliability are presented in the following tables 1-3. 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, age or region**. In correspondingly large subgroups by industry, the confidence interval is wider. The examples in table 1 refer to monthly estimates. Tables 2-3 include the corresponding data for quarterly and annual estimates.

	Monthly estimate	Monthly estimate's 95% confidence interval	Standard error	Relative standard error
	persons	persons	persons	%
Employed	2 400 000	± 27 800	14 200	0,6
	1 200 000	± 21 000	10 700	0,9
	600 000	± 15 300	7 800	1,3
	300 000	± 11 600	5 900	2,0
	100 000	± 6 700	3 400	3,4
	50 000	± 4 700	2 400	4,8
	10 000	± 2 900	1 500	15,0
Unemployed	230 000	± 15 100	7 700	3,3
	120 000	± 11 800	6 000	5,0
	90 000	± 10 800	5 500	6,1
	60 000	± 9 000	4 600	7,7
	30 000	± 6 900	3 500	11,7
	20 000	± 5 100	2 600	13,0
	10 000	± 3 700	1 900	19,0

Table 1. Examples of the accuracy of monthly estimates of different sizes: the numbers of the employed and the unemployed by gender, age and region.<sup>1)</sup>

1) The data can be used as indicative estimates of the accuracy of comparable numbers of the employed and unemployed by gender, are and region.

We can see from table 1 that if the monthly estimate of the employed in the subgroup is 300,000 persons, the real number of the employed lies, with a probability of 95 per cent, within the range  $300,000 \pm 11,600$  persons. The size of this confidence interval relative to the size of the estimate is clearly larger than the corresponding share in the large estimate on the first row of the table. For estimates of less than 300,000 persons the confidence intervals are relatively even wider.

A comparison of data in tables 1–3 illustrates also that annual and quarterly data are more accurate than monthly data. The 95 per cent confidence interval corresponding to the estimate of the employed in a subgroup of 300,000 persons examined above, that is  $300,000 \pm 6,700$  persons (table 2), is clearly narrower than the confidence interval of the monthly estimate. Annual estimated are even more accurate than quarterly estimates (table 3). This difference in accuracy is, however, not as large as the corresponding difference between monthly and quarterly data.

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. <sup>1)</sup>

	Quarterly estimate	Quarterly estimate's 95% confidence interval	Standard error	Relative standard error
	persons	persons	persons	%
Employed	2 400 000	± 16 100	8 200	0,3
	1 200 000	± 12 500	6 400	0,5
	600 000	± 8 800	4 500	0,8
	300 000	± 6 700	3 400	1,1
	100 000	± 4 700	2 400	2,4
	50 000	± 3 900	2 000	4,0
	10 000	± 2 000	1 000	10,0
Unemployed	230 000	± 8 800	4 500	2,0
	120 000	± 6 900	3 500	2,9
	90 000	± 6 100	3 100	3,4
	60 000	± 5 100	2 600	4,3
	30 000	± 3 500	1 800	6,0
	20 000	± 3 100	1 600	8,0
	10 000	± 2 400	1 200	12,0

1) The data can be used as indicative estimates of the accuracy of comparable numbers of the employed and unemployed by gender, are and region.

# Table 3. Examples of the accuracy of annual estimates of different sizes: the numbers of the employed and the unemployed by gender, age and region.<sup>1)</sup>

	Annual estimate	Annual estimate's 95% confidence interval	Standard error	Relative standard error
	persons	persons	persons	%
Employed	2 400 000	± 15 700	8 000	0,3
	1 200 000	± 11 400	5 800	0,5
	600 000	± 7 800	4 000	0,7
	300 000	± 6 100	3 100	1,0
	100 000	± 3 300	1 700	1,7
	50 000	± 2 500	1 300	2,6
	10 000	± 800	400	4,0
Unemployed	230 000	± 7 100	3 600	1,6
	120 000	± 5 700	2 900	2,4
	90 000	± 4 500	2 300	2,6
	60 000	± 3 500	1 800	3,0
	30 000	± 2 400	1 200	4,0
	20 000	± 2 000	1 000	5,0
	10 000	± 1 600	800	8,0

1) The data can be used as indicative estimates of the accuracy of comparable numbers of the employed and unemployed by gender, are and region.

### 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 5 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 5 cases out of one hundred it would be outside the confidence interval.

**Relative standard error** (coefficient of variation) is the percentage chare 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.

In the monthly and quarterly data of the Labour Force Survey, the estimator of the standard error is the variance estimator of the generalised regression estimator (GREG). The statistical accuracy of the annual estimates and its evaluation is also affected by the fact that the sample of the Labour Force Survey changes gradually during the year. In consecutive quarters 60 per cent of the respondents are the same. During one year 90 per cent of the interviewees have been interviewed at least twice. The responses given by the same persons in different interviews during the year correlate to one another if the person's labour market status does not change between interviews. To account for this correlation in variance estimation, the Labour Force Survey uses an approximation of single stage cluster sampling in which a within-cluster variance is calculated for persons interviewed several times during the year. Clusters are formed on the basis of interviewee's age. Within-cluster variance is zero it the interviewee's labour market status does not change during the year between different interviews.

For example, the standard error calculated for annual estimate of the unemployed in a subgroup of 230,000 persons is 3,600 persons and the confidence interval is  $230,000 \pm 7,100$  persons. If the interviews on which the annual estimate is based had all been with different persons, the standard error of the estimate of the unemployed had been 2,300 persons and the confidence interval  $230,000 \pm 4,500$  persons. Interviewing the same persons again in different quarters of the year explains why the difference in the accuracy of the annual and quarterly data of the Labour Force Survey is not as big as could be expected on the basis of the number of interviews conducted.

### 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, inter alia, employment and labour input by industry and more specific regional data. Quarterly deliveries of data are made to the EU, which are used to compile statistics on EU Member States. The most detailed data are released in the annual statistics which is finalised approximately six months from the end of the survey year.

### 5. Accessibility and transparency/clarity of data

The results of the Labour Force Survey are published in the Labour market series of the Official Statistics of Finland. The key monthly and quarterly results are released on predefined days in the Internet on the home page of the Labour Force Survey <u>http://tilastokeskus.fi/til/tyti/index\_en</u>. The links on the home page

lead, among other things, to 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 available over the Internet also from Statistics Finland's chargeable time series database (ASTIKA).

The annual publication of the labour force statistics contains a description of survey methodology, definitions of key concepts, descriptions of classifications used as well as the survey questionnaire. The tables of the annual publication are available also in electronic form. Statistics on the education of the labour force and occupational structure are published every other year in the OSF Labour market series. In addition, Labour Force Survey data have been published regularly in the Statistical Yearbook of Finland and the Bulletin of Statistics. Chargeable special compilations can be requested from the Labour Force Survey's 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 only be released for purposes of scientific research and statistical study on the basis of a specific authorised permission and all the identifiers must be removed from it. The data files for the EU Labour Force Survey are delivered to Eurostat, the Statistical Office of the European Communities, without identifiers. Labour Force Survey data are protected according to the protection class defined in Statistics Finland's data protection guidelines.

Information service: tyovoimatutkimus@stat.fi and tel. +358 9 17341.

### 6. Comparability of statistics

A monthly Labour Force Survey 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.

In the beginning, the survey with more limited data content was conducted as a postal inquiry. In 1976 the data contents expanded and methodology was modernised. During 1977–1993 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 inquiry to a telephone interview, 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 Forcey Survey. In the beginning, during 1995-1998, the EU Labour Force Survey data were collected as a separate interview survey in the spring. The monthly survey was gradually revised to correspond to the EU Labour Force Survey. In 1997 the data content of the monthly survey was extended, the data collection became a computer-assisted telephone interview (CATI) and the concepts and definitions were harmonised to match the guidelines and recommendations of the European Union and the UN's International Labour Organization (ILO) better than before. The definition of an unemployed person was revised in May 1998 and the published time series were revised to correspond with the new definitions retroactively as from 1989 onwards.

In April 1999 the Labour Force Survey's data content extended again with the combining of the monthly survey and the EU Labour Force Survey into a single continuous Labour Force Survey. As from the beginning of the year 2000 the survey changed over into a continuous survey week, whereas previously data for each month had been collected on one survey week. This change-over affected data on working days and hours worked, which are not entirely comparable with earlier data as from the year 2000 onwards. As from the year 2003 the data content of the survey extended with the so-called household module, which is collected from a subsample.

### 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 working life survey, statistics on labour disputes, statistics on accidents at work as well as an annual register-based employment statistics (RES).

Of these the RES provides data on the labour market activities of the population

(http://tilastokeskus.fi/til/tyokay/index\_en.html). Its data differ from those of the Labour Force Survey due to data collection methods and definitions of the employed and the unemployed. The RES is based on total data derived from the administrative data of different authorities. The RES data on a person's activities refer mainly to the last week in the year. Data on unemployment is based on the Ministry of Employment and the Economy's register of unemployed job seekers. The statistics are finalised in a good 1 ½ years, preliminary data are ready after roughly one year. Since employment statistics are total data, they offer better regional data (also data on municipalities) 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 compilation of National Accounts. Because of this, among other things, the definitions of the key concepts in the Labour Force Survey such as population, employment, working hours, follow as closely as possible the recommendations of the national accounts (the UN System of National Accounts, SNA, and the European System of Accounts, ESA). The definition of the public sector used in the Labour Force Survey is somewhat different from the sectoral classification of the national accounts. In national accounts, conscripts are classified as employed, according to the ILO recommendation, whereas in the Labour Force Survey, conscripts are regarded as economically inactive.

The results of the Finnish Labour Force Survey published by Eurostat, the Statistical Office of the European Communities, differ from those published in Finland in that conscripts are not included in the Eurostat data. In most EU countries conscripts are not included in the target group of the Labour Force Survey, i.e. the so-called household population. This causes differences especially in the results concerning the 15 to 24-year-olds.

The Ministry of Employment and the Economy also publishes data on unemployed job seekers. The Ministry's data are based on the 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 differences also in the acceptance of students as unemployed.

# Statistics Finland

Suomen virallinen tilasto Finlands officiella statistik Official Statistics of Finland

Labour Market 2010

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