Occupational accidents 2013

The number of accidents at work in Finland 135,000 in 2013

Close on 135,000 accidents at work occurred in Finland in 2013. Around 123,000 of these occurred to wage and salary earners and some 11,400 to self-employed persons (including farmers). The majority, or good 112,000 of all accidents at work occurred at places of work or while in work traffic, whereas slightly over 22,000 of them occurred while commuting. These numbers also include minor accidents at work that led to disability lasting less than four days, and on which insurance companies paid compensation only for medical treatment expenses.

Number of wage and salary earners', self-employed persons' and farmers' accidents at work by severity in 2013

	Total	Accidents at work	Commuting accidents
	N	N	N
Total	**134 666**	**112 370**	**22 296**
Less than 4 days	77 739	64 916	12 823
At least 4 days	56 892	47 432	9 460
Fatal accidents	35	22	13
Wage and salary earners	**123 274**	**101 612**	**21 662**
Less than 4 days	73 672	61 123	12 549
At least 4 days	49 573	40 473	9 100
Fatal accidents	29	16	13
Self-employed persons	**7 075**	**6 441**	**634**
Less than 4 days	3 272	2 998	274
At least 4 days	3 801	3 441	360
Fatal accidents	2	2	0
Farmers	**4 317**	**4 317**	**–**[1)]
Less than 4 days	795	795	–
At least 4 days	3 518	3 518	–
Fatal accidents	4	4	–

1) Farmers' accidents at work and commuting accidents are not separated.

The number of accidents at work decreased slightly in 2013. In 2012, there were 139,000 accidents at work and in 2011 the respective figure was 142,000. Wage and salary earners' accidents at work increased from 2005 to 2008, but in 2009 the total number of accidents at work fell to the level where it was ten years previously. The economic downturn in Finland in 2009 and changes in the number of hours worked

explain for the main part the change. It is not meaningful to make detailed comparisons of the time series prior and subsequent to 2005 with relation to total numbers (incl. cases resulting in disability of under four days) on account of the full-cost renewal that entered into force in 2005.

Since the reference year 2005, an accident at work has been defined in Statistics Finland's statistics on occupational accidents according to the definition used in the European Statistics on Accidents at Work (ESAW) of Eurostat, the Statistical Office of the European Communities. According to the definition, the statistics contain data on accidents at work which have resulted in "disability of at least four days". Most of the data in this online release are presented using this criterion. The time series have been revised retrospectively to correspond with the definition.

In 2013, a total of 35 persons died at the place of work or while commuting. Of these fatal accidents at work, 16 occurred to wage and salary earners, four to farmers and two to other self-employed persons. In addition, 13 fatal accidents occurred while commuting, all of them to wage and salary earners. The number of fatal accidents at work fell clearly from the year before, as in 2012 a total of 61 persons died at work or while commuting.

The victims of all fatal accidents at work included 29 wage and salary earners, four farmers and two other self-employed persons.

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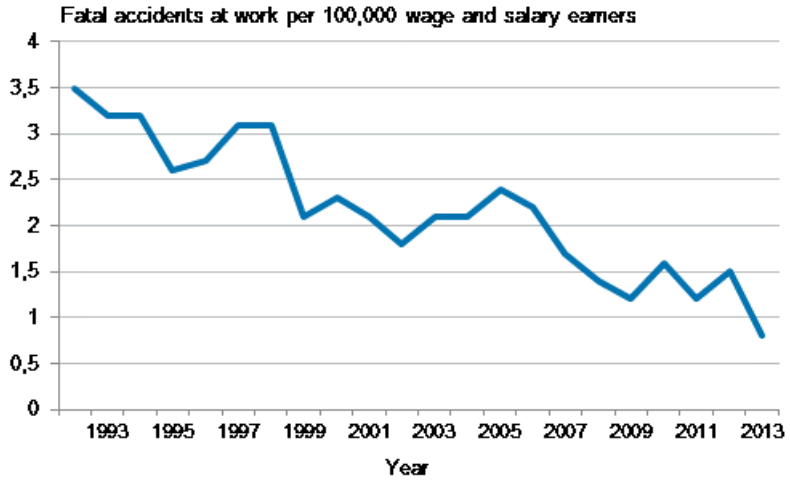
A total of 16 fatal accidents at work occurred to wage and salary earners in 2013. The number of fatal accidents at work was halved from the year before, as in 2012 accidents at work resulted in the death of 32 wage and salary earners. It should be noted that accidents in work traffic cannot always be separated from commuting accidents when settling claims. Therefore, some of the accidents that occur in work traffic are recorded as commuting accidents. The number of accidents in work traffic has decreased evenly from the early 1990s (Appendix table 1).

The risk of death at work went down again. In 2013, an average of 0.8 per 100,000 wage and salary earners died in an accident at work (Figure 1). The respective figure was 1.5 in 2012. This means that the risk was almost halved compared to the risk of death at work in 2012. The difference between genders with regard to fatal accidents at work is still clear: of the 16 fatal accidents at work 15 occurred to men and one to women. Fatal accidents at work concentrated on certain industries: three out of four fatal accidents at work occurred in the activities of manufacturing (industry category C), construction (F), wholesale and retail trade (G), or transportation and storage (H) (Appendix table 2). The risk of death at work has conventionally been particularly high in the construction industry. The most risky industry in 2013 was indeed construction, where there were 3.0 fatal accidents per 100,000 wage and salary earners working in the industry. In the industry of transport and storage the risk of fatal accidents at work was 2.5. In the activity of manufacturing, 1.2 per 100,000 wage and salary earners, on the average, had a fatal accident at work (see Table 13).

The data by industry are based on the revised Standard Industrial Classification TOL 2008 which was adopted in the Occupational accident statistics in the statistical reference year 2008. The data classified by the revised industrial classification are not comparable with those produced by its predecessor TOL 2002 (this applies to data from the reference year 2007 and prior to it).

Figure 1. Wage and salary earners' fatal accidents at work per 100,000 wage and salary earners in 1992 to 2013

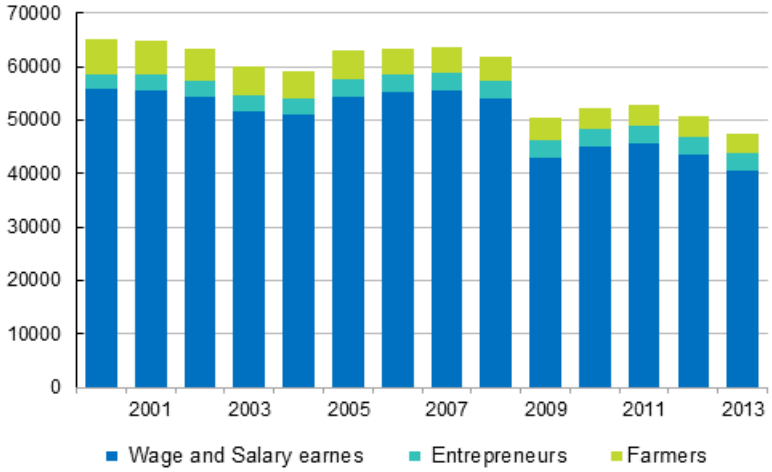


Number of wage and salary earners' accidents at work declined slightly

The number of wage and salary earners' accidents at work was clearly higher in 2013 than one year earlier. In 2013, wage and salary earners had 40,473 accidents at work causing disability of at least four days. This was around 3,000 accidents fewer than in 2012 (-7.1%). Farmers' accidents at work decreased by around 180 from the year before, but the number of accidents suffered by other self-employed people increased by nearly one hundred (Figure 2). It must, however, be noted that the accident insurance is voluntary for self-employed persons, so the number of accidents at work may also indicate the popularity

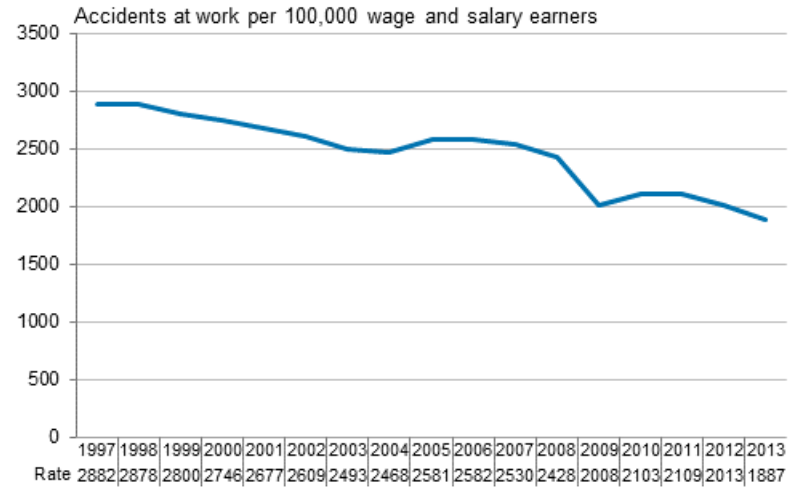
of insurance among self-employed persons. Around 40 per cent of self-employed persons are estimated to be insured against accidents at work.

Figure 2. Changes in the number of accidents at work by status in employment in 2000 to 2013



The risk of accidents at work has been falling among Finnish wage and salary earners since the late 1990s (Figure 3). This becomes evident when the number of accidents is expressed as a proportion of 100,000 wage and salary earners. The accident incidence rate fell by some 14 per cent between 1998 and 2004. In 2013, a total of 1,887 accidents at work resulting in a disability of at least four days occurred per 100,000 wage and salary earners. The corresponding ratio in the previous year was 2,013, which means that the risk of accidents at work fell clearly from with the previous year (-6.3%). The accident incidence rate is used to measure variation in the risks of accidents in different industries and occupational groups.

Figure 3. Wage and salary earners' accidents at work per 100,000 salary and wage earners in 1997 to 2013



Accidents at work continue to be a problem among men: seven in ten accidents at work (66.9%) occur to men. Men's risk of accidents at work has conventionally been clearly higher than that of women. Measured with the accident incidence rate, men's risk of suffering accidents at work is nearly 2.5-fold when compared to women. The key reason for this is that more men than women work in industries and have jobs with a higher than average risk of accidents at work.

Table 1. Wage and salary earners' accidents at work by gender and age in 2013

Age	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
	5 346	13,2	3 627	13,4	1 719	12,8
	9 213	22,8	6 717	24,8	2 496	18,6
	8 412	20,8	5 754	21,3	2 658	19,8
	10 243	25,3	6 628	24,5	3 615	26,9
	6 925	17,1	4 114	15,2	2 811	21,0
Others	334	0,8	218	0,8	116	0,9

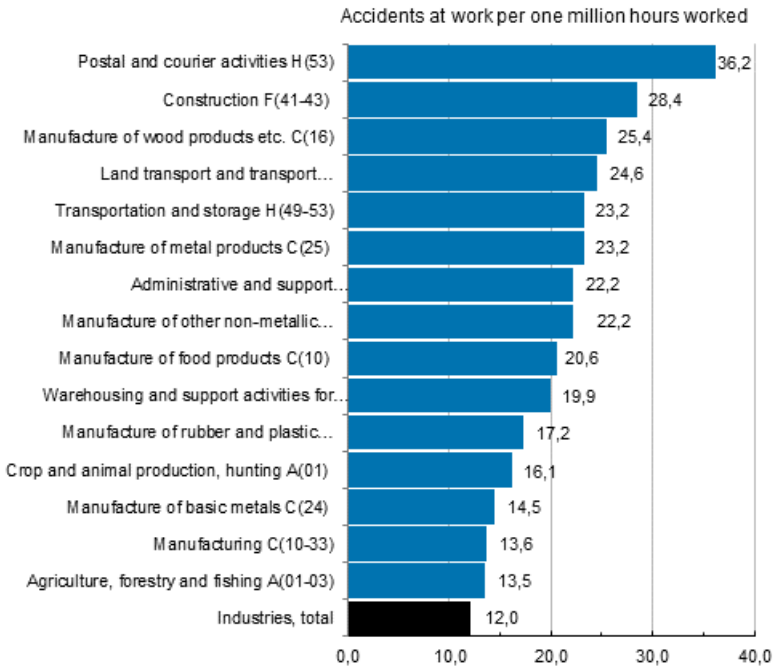
Men's risk of accidents at work is highest among the youngest age group (aged 15 to 24). In 2013, young men had 2,967 accidents at work resulting in at least four days' absence from work per 100,000 wage and salary earners (Figure 4). This meant that the risk measured with the accident incidence rate for men aged between 15 and 24 was clearly (14.5%) higher than the average for wage and salary earner men. Unlike for men, women's risk of accidents is the highest among the oldest age group, that is, among those aged 55 to 64. Differences between age groups are, however, fairly small. The picture of the accidents at work situation by gender given by the accident incidence rate has remained nearly stable from one year to the next.

Figure 4. Wage and salary earners' accidents at work per 100,000 salary and wage earners by gendre and age in 2013

Postal and courier activities most dangerous

When measured with accident frequency, industries with a high risk of accidents at work in 2013 were postal and courier activities (36.2), construction (28.4), and manufacture of wood and of products of wood (25.4). Figure 5 lists the industries with a higher than average (12.0) accident frequency. The frequencies have been calculated from accidents at work resulting in disability of at least four days, fatal accidents excluded. Municipal sector employees have been classified into their own class, as information on their industry is missing from the accidents at work data files. Wage and salary earners in the municipal sector had 9.5 accidents at work per one million hours worked in 2013, while one year previously their accident frequency was 9.7.

Figure 5. Wage and salary earners' accidents at work per one million hours worked by branch of industry in 2013, accident frequency more than average



The accident risk measured with the accident frequency has been falling almost steadily from the late 1990s. In the previous year, 2012, the accident frequency in industries totalled 12.8.

The accident frequency (accidents at work per 100,000 wage and salary earners) is a more accurate measure of risk than the accident incidence rate, as it expresses the number of accidents as a proportion of the time (hours worked) during which wage and salary earners were exposed to accidents at work. The hours worked, that is, the time of being exposed to accidents at work can, however, vary from person to person. The data on the number of wage and salary earners and their hours worked are obtained from Statistics Finland's Labour Force Survey.

ESAW variables describing the circumstances and manner of accidents at work among wage and salary earners

A revised form for reporting accidents at work was introduced in Finland in 2003 to collect for the first time data on the circumstances and manner of accidents at work according to the European Statistics on Accidents at Work (ESAW). These data are now published for the eleventh time in Statistics Finland's occupational accident statistics for 2013. Compared with the previous year's statistics the distributions of variables are similar and thus appear quite reliable. Eurostat's project is ambitious and the data to be collected are quite detailed at times, which is why the data presented provide a comprehensive picture of the circumstances during the accident at work as well as the causes and consequences.

The Member States are allowed to exercise discretion as to the extent of their data collection. In Finland the data on accidents at work are collected on the key ESAW variables, in some of which only the main category classification is included. The data are given according to the incidence process of the accident at work, so that the prevailing circumstances are described first, then the progress of the event and finally the consequences of the accident. Categories were combined in some of the variables due to presentation reasons. The text section presents mainly distributions by gender and the appended table section distributions by other background variables, such as industry and occupation. In addition to this, data are given only on the basis of the national classification. Such data are the data on the variable describing the direct cause of the accident at work (see Table 6). An indication that they are in line with the joint European statistics on accidents at work is given in the tables and figures based on ESAW statistics.

Most accidents occur when the person is moving

Data are given first about the general circumstances prior to the accident at work. The first ESAW variable describes the working process the wage and salary earner was involved in when the accident occurred. However, the working process does not refer to the person's occupation, because the tasks may vary at different times in the same occupation. Nearly one third (30.1%) of men's accidents at work occurred in working processes related to production, manufacturing, processing or storing. More than one-half (58.1%) of women's accidents at work took place in working processes related to services provided to enterprise and/or to the general public (Table 2).

Table 2. Wage and salary earners' accidents at work by gender and working process in 2013

Working process	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
10 Production, manufacturing, processing, storing	9 908	24,5	8 171	30,1	1 737	12,9
20 Excavation, construction, repair, demolition	4 436	11,0	4 332	16,1	102	0,8
30 Agricultural type work, forestry, horticulture, fish farming, work with live animals	1 459	3,7	847	3,1	611	4,5
40 Provided service to enterprise and/or to the general public; intellectual activity	10 040	24,9	2 235	8,2	7 805	58,1
50 Other work related to tasks coded under 10, 20, 30 and 40	8 093	20,0	6 570	24,1	1 523	11,3
60 Movement, sport, artistic activity	5 050	12,4	3 889	14,4	1 161	8,6
99 Other Working Processes no listed above	707	1,7	436	1,6	271	2,0
00 No information	780	1,9	578	2,1	202	1,5

The specific physical activity illustrates the person's *exact* physical activity just before the moment of injury, while the working process variable describes the *general* nature of work at the time of the accident. The specific physical activity can be intentional or voluntary, but it need not be of long duration. Nearly four in ten accidents occurred when the person was moving (Table 3). A great part of women's accidents (46.1%) took place in connection with movement than men's (34.2%). Nearly every fifth (17.4%) accident occurred when the person was carrying a load by hand. Similarly, nearly one-fifth (17.6%) of accidents occurred when handling various objects. In relative terms, men had almost three times more accidents at work than women when working with hand-held tools.

Table 3. Wage and salary earners' accidents at work by gender and specific physical activity in 2013

Specific physical activity	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
10 Operating machine	1 791	4,4	1 513	5,6	278	2,1
20 Working with hand-held tools	4 616	11,4	3 955	14,6	661	4,9
30 Driving/being on board a means of transport or handling equipment	1 025	2,5	799	3,0	226	1,7
40 Handling of objects	7 104	17,6	5 065	18,7	2 039	15,2
50 Carrying by hand	7 042	17,4	4 514	16,7	2 528	18,8
60 Movement	15 422	38,1	9 244	34,2	6 178	46,1
70 Presence	1 184	2,9	664	2,5	520	3,9
99 Other Specific Physical Activities not listed above	1 563	3,9	814	3,0	749	5,6
00 No information	726	1,8	490	1,8	236	1,8

The cause of accident mostly stumbling, slipping or falling

We will next examine the progress of the events leading to the actual accident at work. Among women good one-third (35.7%) and among men nearly one-third (31.0 %) of accidents at work were consequences of stumbling, jumping, slipping or falling (Table 4). The proportions are nearly the same as one year ago. This appears from the data of the deviation variable which describes the unusual occurrence during the physical activity leading to the accident at work. If several deviating events precede the actual accident, the one occurring last is recorded. The second most common event leading to an accident for mean was body movement without any physical stress (16.8%) and for women a sudden physical stress (21.2%).

Table 4. Wage and salary earners' accidents at work by gender and deviation in 2013

Deviation	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
10 Deviation due to electrical problems, explosion, fire	107	0,3	88	0,3	19	0,1
20 Deviation by overflow, overturn, leak, flow, vaporisation, emission	928	2,3	632	2,3	296	2,2
30 Breakage, bursting, splitting, slipping, fall, collapse of Material Agent	4 231	10,5	3 137	11,6	1 094	8,2
40 Loss of control (total or partial) of machine, means of transport or handling equipment, hand-held tool, object, animal	4 291	10,6	3 329	12,3	962	7,2
50 Slipping – Stumbling and falling – Fall of persons	13 175	32,6	8 386	31,0	4 789	35,7
60 Body movement without any physical stress (generally leading to an external injury)	6 122	15,1	4 544	16,8	1 578	11,8
70 Body movement under or with physical stress (generally leading to an external injury)	7 243	17,9	4 401	16,3	2 842	21,2
80 Shock, fright, violence, aggression, threat, presence	1 217	3,0	458	1,7	759	5,7
99 Other Deviations not listed above	2 021	5,0	1 325	4,9	696	5,2
00 No information	1 138	2,8	758	2,8	380	2,8

Roughly three tenths (30.1%) of the victims of accidents at work were injured due to horizontal or vertical impact with or against a stationary object (Table 5). This is also indicated in the data of the variable expressing the deviating situation leading to the accident, where stumbling, falling or similar was the most common event leading to the accident. With a few exceptions, the data of these two variables on men and women are almost identical. Roughly every fifth (22.4%) was injured as a result of sudden physical or mental stress. The mode of injury describes how the injured body part came into contact with the cause of the injury. Where there are several modes of injury, the one causing the most serious injury is recorded.

Table 5. Wage and salary earners' accidents at work by gender and contact - mode of injury in 2013

Contact - Mode of injury (ESAW)	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
10 Contact with electrical voltage, temperature, hazardous substances	1 165	2,9	725	2,7	440	3,3
20 Drowned, buried, enveloped	8	0,0	7	0,0	1	0,0
30 Horizontal or vertical impact with or against a stationary object (the victim is in motion)	12 192	30,1	7 745	28,6	4 447	33,1
40 Struck by object in motion, collision with	3 858	9,5	2 868	10,6	990	7,4
50 Contact with sharp, pointed, rough, coarse Material Agent	5 949	14,7	4 693	17,3	1 256	9,4
60 Trapped, crushed, etc.	4 115	10,2	3 024	11,2	1 091	8,1
70 Physical or mental stress	9 083	22,4	5 709	21,1	3 374	25,2
80 Bite, kick, etc. (animal or human)	1 106	2,7	386	1,4	720	5,4
99 Other Contacts – Modes of Injury not listed in above	2 376	5,9	1 496	5,5	880	6,6
00 No information	621	1,5	405	1,5	216	1,6

In one-third of wage and salary earners' accidents at work - in 33.4 per cent among men and in 37.0 per cent among women - the direct material agent of the injury was diverse scaffolding, surfaces and planes. Various materials, objects and supplies injured nearly one quarter of the victims of accidents at work (Table 6).

The data on the material agent of contact describes the physical factor with which the injured body part was in contact. When several modes are in question, those filling in the accident notification form are asked to report the material agent of the most serious injury.

Table 6. Wage and salary earners' accidents at work by gender and material agent of contact - mode of injury in 2013

Material Agent of Contact-Mode of injury (FAII)[1)]	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
1100-1399 Scaffolding, surfaces and planes	13 997	34,6	9 038	33,4	4 959	37,0
2100-2799 Tools, machines and equipment	6 491	16,1	5 331	19,7	1 160	8,7
2801-2899 Conveying, transport and storage equipment	1 937	4,8	1 232	4,6	705	5,2
3100, 3200 Transport equipment	1 110	2,8	883	3,2	227	1,7
4100-4400 Materials, objects and supplies	9 053	22,4	6 691	24,6	2 362	17,6
5100 Human beings, animals, plants	3 171	7,8	917	3,4	2 254	16,8
5200 Bulk waste	198	0,5	144	0,5	54	0,4
5300 Noise, pressure, fire, light arcs, light, snow, stretches of water	294	0,7	185	0,7	109	0,8
9999 Other material agents not listed above	3 031	7,5	1 886	7,0	1 145	8,5
0000 No information	1 191	2,9	751	2,8	440	3,3

1) The classification of the variables is national (FAII = Federation of Accident Insurance Institutions).

The classification describing the material agent is national for accident data on wage and salary earners. The classification is considerably more detailed than before. Two things should be kept in mind when examining the results. Firstly, the occurrence of an accident at work is usually a sum of many factors and no individual material agent can always be identified unambiguously. However, the variable data show what kind of equipment or tools the victim was using or in what kind of working environment the accident occurred. Secondly, inadequate guidance or inexperience on the part of the worker can often play a major role in the occurrence of an accident. It is difficult and often impossible to produce statistics on such factors.

Four out of ten injuries (44.5%) caused by accidents at work are dislocations, sprains or strains (Table 7). The next most common were wounds and superficial injuries (25.8%) and various concussions and internal injuries (14.4%). Men's accidents caused relatively more often various wounds and superficial injuries, while women's accidents caused dislocations, sprains and strains. This is concordant with the results presented above, which showed that men more often than women injure themselves in accidents at work in connection with sharp objects whereas women more than men injure themselves by stumbling or slipping.

Table 7. Wage and salary earners' accidents at work by gender and type of injury in 2013

Type of Injury (ESAW)	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
010 Wounds and superficial injuries	10 442	25,8	7 712	28,5	2 730	20,4
020 Bone fractures	3 885	9,6	2 682	9,9	1 203	9,0
030 Dislocations, sprains and strains	18 000	44,5	11 417	42,2	6 583	49,1
040 Traumatic amputations (Loss of body parts)	147	0,4	129	0,5	18	0,1
050 Concussions and internal injuries	5 808	14,4	3 798	14,0	2 010	15,0
060 Burns, scalds and frostbites	888	2,2	510	1,9	378	2,8
070 Poisonings and infections	102	0,3	65	0,2	37	0,3
080 Drowning and asphyxiations	1	0,0	1	0,0	—[1)]	—[1)]
090 Effects of sound, vibration and pressure	21	0,1	16	0,1	5	0,0
100 Effects of temperature extremes, light and radiation	17	0,0	12	0,1	5	0,0
110 Shocks	64	0,2	32	0,1	32	0,2
120 Multiple injuries	323	0,8	202	0,7	121	0,9
999 Other specified injuries not included under other headings	268	0,7	179	0,7	89	0,7
000 No information	507	1,3	303	1,1	204	1,5

1) No cases.

More than four out of ten accidents at work (43.6%) involved the upper extremities (Table 8). Under 30 per cent (29.9%) injure the lower extremities, including hips, thighs, knees, shins and ankles.

Table 8. Wage and salary earners' accidents at work by gender and injured body part in 2013

Injured body part (ESAW)	Total		Males		Females	
	N	%	N	%	N	%
Total	**40 473**	**100**	**27 058**	**100**	**13 415**	**100**
10 Head	1 503	3,7	1 109	4,1	394	2,9
20 Neck	505	1,2	299	1,1	206	1,5
30 Back, spine	5 536	13,7	3 421	12,6	2 115	15,8
40 Torso, internal organs	1 896	4,7	1 411	5,2	485	3,6
50 Upper extremities	17 635	43,6	12 228	45,2	5 407	40,3
60 Lower extremities	12 108	29,9	7 884	29,1	4 224	31,5
70 Whole body or multiple sites	1 118	2,8	603	2,2	515	3,8
99 Others	89	0,2	51	0,2	38	0,3
00 No information	83	0,2	52	0,2	31	0,2

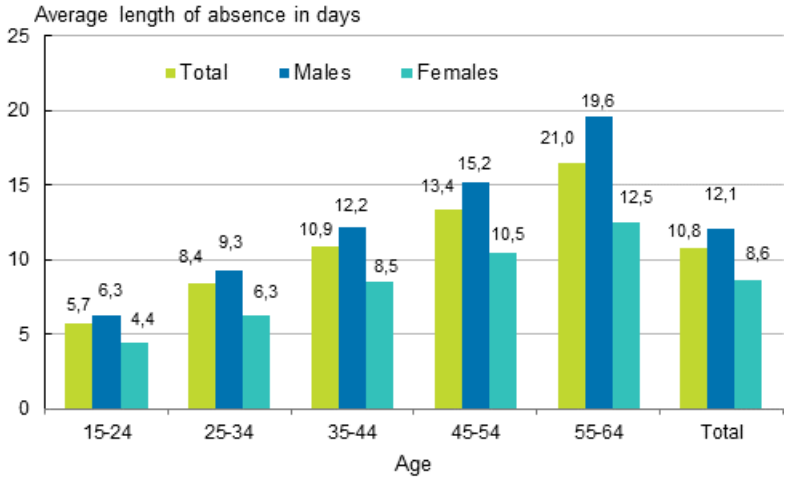
Average duration of absence from work eleven days

The seriousness of accidents at work can be assessed on the basis of the duration of disability resulting from the injury. The figures describing the length of absence from work before 2002 are not fully comparable with the figures for 2002 to 2013, because it was not earlier possible to separate the cases leading to the employment accident pension. The cases leading to the employment accident pension are always serious, but in some of the cases the recorded number of days absent may have been low before the decision on the pension was granted. Now pension cases are excluded from the examination of the duration of disability.

The average duration of an absence from work due to an accident at work was 11 days (10.8) in 2013. The average duration of disability was 12.1 days for men and 8.6 days for women. The average duration

of absence caused by accidents increases with age for both men and women (Figure 6). Included are also accidents at work leading to a disability lasting under four days.

Figure 6. Average length of absence of wage and salary earners' accidents at work by gender and age in 2013



Two-third (30.0%) of all accidents leading to disability of at least four days caused disability of four to six days. In all, 18.7 per cent of the accidents at work – including employment accident pension cases – were serious, causing absences of more than 30 days (Table 9).

Table 9. Wage and salary earners' accidents at work by gender and length of disability in 2013

Lenght of disability - days	Total		Males		Females	
	N	%	N	%	N	%
Total	**43 576**	**100**	**29 517**	**100**	**14 059**	**100**
4–6 days	13 064	30,0	8 483	28,7	4 581	32,6
7–14 days	15 080	34,6	10 221	34,6	4 859	34,6
15–30 days	7 292	16,7	5 011	17,0	2 281	16,2
31–90 days	5 644	13,0	3 944	13,4	1 700	12,1
91–182 days	1 494	3,4	1 082	3,7	412	2,9
183–365 days	832	1,9	627	2,1	205	1,5
Employment accident pension	170	0,4	149	0,5	21	0,1

Risk of commuting accidents decreased slightly

In 2013, wage and salary earners had a total of 21,662 commuting accidents for which insurance companies paid compensation. In the statistics commuting accidents are separated from accidents at work and accidents while in work traffic. A commuting accident means an accident on the journey between home and work. Due to incomplete information in claims forms, some commuting accidents are in practice recorded as accidents at work and vice versa.

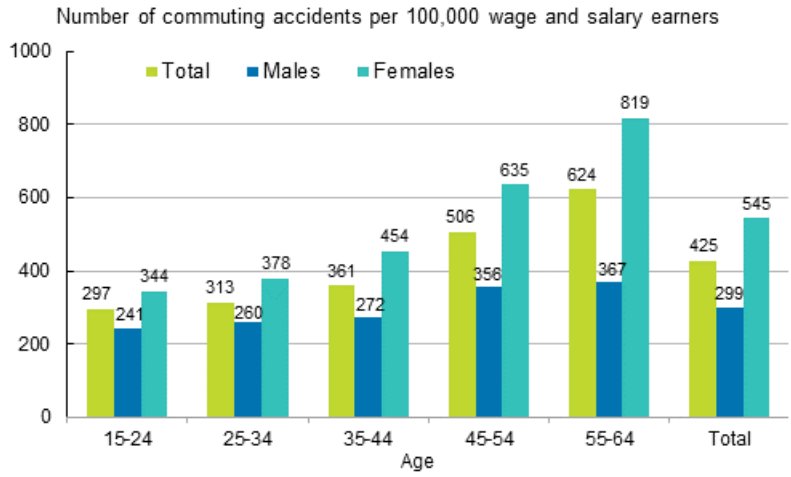
The number of commuting accidents resulting in disability of at least four days fell slightly (-4.5%) from 2012. The number of fatal commuting accidents went down by nearly one-fifth (-18.8%). In 2013, 13 wage and salary earners died on the way to or from work. In 2012, the corresponding figure was 16. In 2011, the respective figure was 21 and fatal commuting accidents numbered 18 in 2010. Thus, the number of commuting accidents varies greatly by year. The long-term development in the number of commuting accidents is examined in more detail in Appendix table 4.

Commuting accidents differ from accidents at work in that they are more common among women than men: nearly two-thirds (65.7%) of all commuting accidents occurred to women. By contrast, fatal commuting accidents occurred to men (9) more often than to women (4).

The accident incidence rate of commuting accidents fell slightly (-4.9%) from the previous year. In 2013, there were 425 commuting accidents per 100,000 wage and salary earners. In 2012, the corresponding figure was 447. Women had 545 (581 in 2012) and men 299 (306 in 2012) commuting accidents per 100,000 wage and salary earners. Like the number of fatal commuting accidents, the accident incidence rate of commuting accidents varies clearly by year.

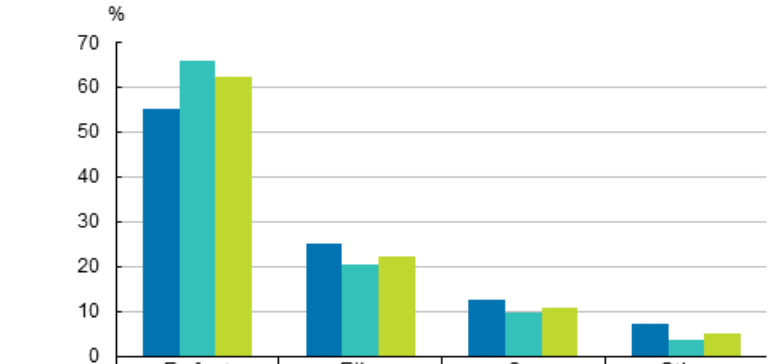
The difference between men and women stays the same when looking at the accident incidence rates in different age groups (Figure 7). Both men's and women's risk of commuting accidents increases with age, but women's risk is still higher than men's in all age groups. The risk of getting injured on the way to or from work is nearly three-fold among women aged 55 to 64 in comparison with the youngest age group. The relative difference between men and women is also biggest in the oldest age group.

Figure 7. Wage and salary earners' commuting accidents per 100,000 wage and salary earners by gender and age in 2013



Most commuting accidents occur when walking or cycling: more than six out of ten (62%) of those injured in commuting accidents were walking and one-fifth (22%) were cycling when injured. When comparing men and women by mode of transport, there were no great differences in commuting accidents: women were slightly more often injured when walking than men, whereas slightly more of men's than women's accidents occurred when cycling (Figure 8). It is not possible to take into account in the statistics the differences between women and men in their frequency of using a bicycle or a car on the journey between home and work.

Figure 8. Wage and salary earners' commuting accidents by mode of travel and gender in 2013



	By foot	Bike	Car	Other
Males	55	25	12	7
Females	66	20	10	4
Total	62	22	11	5

When considering the modes of travel it is natural that the most common type of accident is falling, slipping or stumbling. In 2013, four-fifths (78.6%) of all commuting accidents resulted from falling or slipping. The second most common type (9.5%) of accident is 'collision with a car' (Table 10).

Table 10. Wage and salary earners' commuting accidents by gender and type of accident in 2013

Type of accident	Total		Males		Females	
	N	%	N	%	N	%
Total	**9 100**	**100**	**3 124**	**100**	**5 976**	**100**
Falling, slipping or stumbling	7 149	78,6	2 372	75,9	4 777	79,9
Stepping on objects	51	0,6	15	0,5	36	0,6
Driving off the road or car falling over	489	5,4	201	6,4	288	4,8
Collision with a car	862	9,5	354	11,3	508	8,5
Collision with a bicycle, moped, etc.	150	1,6	48	1,5	102	1,7
Collision with a track-going vehicle	2	0,0	2	0,1	.	.
Violence	23	0,3	6	0,2	17	0,3
Others	374	4,1	126	4,0	248	4,1

Most of the injuries sustained in commuting accidents were minor, often caused by falling. In more than four cases out of ten (44.8 %), the victim's injuries were various dislocations of joints, sprains and strains (Table 11). The injured body parts were often the extremities (Table 12).

Table 11. Wage and salary earners' commuting accidents by gender and type of injury in 2013

Type of Injury (ESAW)	Total		Males		Females	
	N	%	N	%	N	%
Total	**9 100**	**100**	**3 124**	**100**	**5 976**	**100**
010 Wounds and superficial injuries	1 086	11,9	351	11,2	735	12,3
020 Bone fractures	1 806	19,8	648	20,7	1 158	19,4
030 Dislocations, sprains and strains	4 075	44,8	1 423	45,6	2 652	44,4
040 Traumatic amputations (Loss of body parts)	5	0,1	2	0,1	3	0,1
050 Concussions and internal injuries	1 711	18,8	539	17,3	1 172	19,6
060 Burns, scalds and frostbites	5	0,1	4	0,1	1	0,0
070 Poisonings and infections	1	0,0	.	.	1	0,0
090 Äänen, värähtelyn ja paineen vaikutukset 090 Effects of sound, vibration and pressure	1	0,0	.	.	1	0,0
110 Shocks	9	0,1	4	0,1	5	0,1
120 Multiple injuries	186	2,0	63	2,0	123	2,1
999 Other specified injuries not included under other headings	44	0,5	16	0,5	28	0,5
000 No information	171	1,9	74	2,4	97	1,6

Table 12. Wage and salary earners' commuting accidents by gender and injured body part in 2013

Part of Body Injured (ESAW)	Total		Males		Females	
	N	%	N	%	N	%
Total	**9 100**	**100**	**3 124**	**100**	**5 976**	**100**
10 Head	330	3,6	92	2,9	238	4,0
20 Neck	455	5,0	149	4,8	306	5,1
30 Back, spine	741	8,1	292	9,3	449	7,5
40 Torso, internal organs	612	6,7	278	8,9	334	5,6
50 Upper extremities	2 769	30,4	1 002	32,1	1 767	29,6
60 Lower extremities	3 243	35,6	1 030	33,0	2 213	37,0
70 Whole body or multiple sitess	884	9,7	257	8,2	627	10,5
99 Others	18	0,2	7	0,2	11	0,2
00 Data missing	48	0,5	17	0,5	31	0,5

Self-employed persons' accidents at work

This section focuses on the accidents at work among farmers and other self-employed persons. Self-employed persons' (excl. farmers) accidents at work were separated in the occupational accident statistics from wage and salary earners' accidents at work for the first time in 1995. Before that, self-employed persons' accidents were included as such in wage and salary earners' accidents at work. When examining the figures on self-employed persons' accidents at work it must be noted that accident insurance is voluntary for self-employed persons, and not all of them are insured. Therefore, the distribution of self-employed persons' accidents at work according to different background variables (age, occupation, industry) also illustrates in which occupations and sectors self-employed persons are more insured than usual.

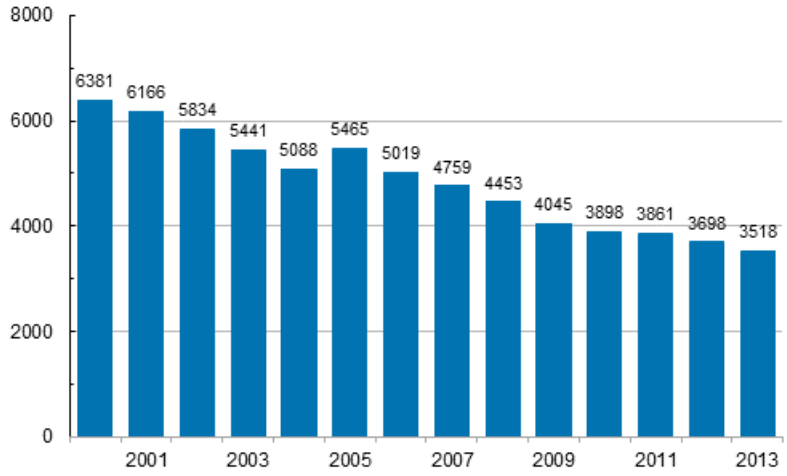
In Finland, most farmers live on their farms, which makes it impossible to make a distinction between accidents at work and commuting accidents. In this publication, all accidents occurring to farmers in their work are called accidents at work. The data on farmers' accidents at work are based on the information obtained from the Farmers' Social Insurance Institution (MELA).

Apart from a full-time and working age farmer, the insured can be a pensioner, an under 18-year-old family member or a person practising part-time agriculture, game or reindeer husbandry or fishery. The number of farmers has been falling steadily in recent years. At the end of 2013, there were 70,488 farmers insured by the Farmers' Social Insurance Institution, which is about 2,800 fewer than one year previously and over 41,000 fewer than in 1999.

Farmers' accidents at work decreased

The changes in the numbers of farmers are also visible in the numbers of accidents at work. In 2013, MELA paid compensation for 4,317 occupational accidents of farmers. There were a total of 3,518 occupational accidents leading to disability of at least four days, while in the previous year the respective figure was 3,698 (-4.9%). The number of farmers' accidents at work has been falling almost throughout the past ten years, the year 2005 excluded (Figure 9). The accident peak in 2005 could in part be the result of the introduction that year of the full-cost responsibility system of patient care.

Figure 9. Farmers' non-fatal accidents at work resulting in at least 4 days' absence in 2000–2013



Farmers' risk of death at work diminished clearly

Of all the farmers' accidents at work for which compensation was paid in 2013 four were fatal, whereas in the previous year seven farmers died in consequence of an accident at work. All fatal deaths at work occurred to men. Of all the farmers' fatal accidents at work in 2000 to 2013, only three occurred to women. Figure 10 presents the accident incidence rates of farmers from 2000 to 2013 with regard to deaths at work and accidents leading to disability of at least four days. The figure shows that the risk of death at work varies strongly in different years. In 2013, 5.6 per 100,000 insured farmers died, while in 2012 the corresponding ratio was 9.4. In 2011, the corresponding ratio was 5.2 and in 2010 it was 7.5. The year 2000 was the darkest in the near past; a total of 12.9 per 100,000 insured farmers died in accidents at work.

An examination of the time series reveals that farmers' risk of fatal accidents at work has fallen by over one-fifth (21.4%)t during the 2004 to 2013 period. This becomes clear if we compare two five-year periods with each other. In the 2004-2008 period, own-account workers in agriculture had 37 fatal accidents at work, which is an average of 8.3 fatal accidents per 100,000 own-account workers in agriculture. In the 2009-2013 period, a total of 25 own-account workers in agriculture died in occupational accidents, which amounted to an annual average of 6.5 fatal accidents per 100,000 own-account workers in agriculture.

Figure 10. Farmers' accident rates in 2000 to 2013

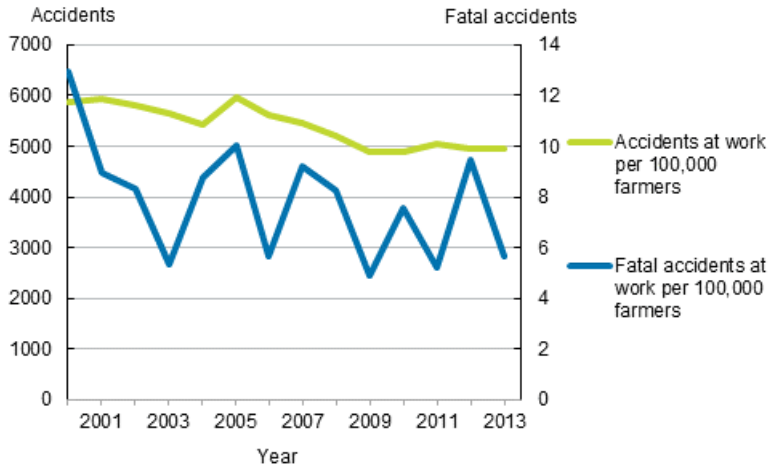


Figure 10 use the mean population of insured farmers for 2000 to 2013.

Table 13 compares the incidence rate of accidents leading to the death of the farmer with the risky industries among wage and salary earners in 2013. Because the majority of persons who die as the result of accidents at work are generally men, their accident incidence rates are given separately. The figures indicate that male farmers' work was the most dangerous. Of them, a total of 8.3 per 100,000 insured farmers died in accidents at work in 2013. In 2012, the corresponding figure was 14.0.

In 2013, the most risky industry was construction for wage and salary earners. In this industry the risk of death at work was 3.0 (for men 3.3) per 100,000 insured wage and salary earners. In 2012, the respective figures were 5.3 and 5.8. The riskiest industry was also construction.

Table 13. Farmer's fatal accidents at work compared with wage and salary earner's fatal accidents in high risk industry per 100,000 farmers or wage and salary earners in 2012 to 2013

	2012		2013	
	Total	Males	Total	Males
Farmers	**9,4**	**14,0**	**5,6**	**8,3**
Wage and salary earners	**1,5**	**2,8**	**0,8**	**1,4**
Manufacturing	1,5	2,0	1,2	1,2
Construction	5,3	5,8	3,0	3,3
Transportation and storage	5,0	5,4	2,5	3,2

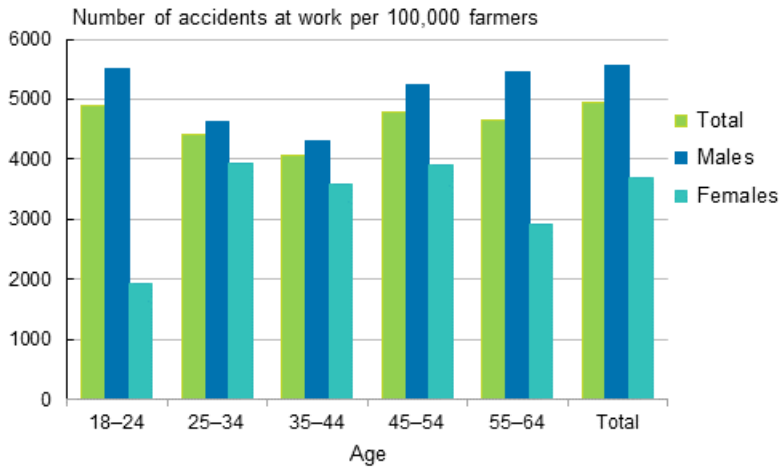
1) The data by industry are based on the revised Standard Industrial Classification TOL 2008 which was adopted in the Statistics on Accidents at Work in the statistical reference year 2008. The data classified by the revised industrial classification are not comparable with those produced by its predecessor TOL 2002 (this applies to data from reference year 2007 and prior to it)

Among farmers, the proportion of minor accidents at work resulting in disability of less than four days has stayed roughly on level in recent years at slightly under one-fifth of all compensated accidents (Table on page 1 of the publication). Nearly every third (32.9%) accident at work was a so-called serious accident, i.e. they caused a disability lasting longer than one month (Appendix table 5). In the following, the focus will be on those accidents at work that resulted in absence of at least four days from work.

Farmers' risk of accidents increases with age

In 2013, there were 4,994 occupational accidents per 100,000 insured farmers, which is slightly fewer (-0.3%) than in 2012 (5,008). Farmers' risk of accidents is still clearly higher than that of wage and salary earners and distinctly higher for men than for women: men had 5,586 and women 3,756 accidents at work per 100,000 insured farmers (Figure 11). The difference between the genders is partly explained by the fact that in farming men conventionally do the kind of work in which accidents are common. Such work includes construction work and tasks related to the use and maintenance of machinery and equipment.

Figure 11. Farmers' accident at work per 100,000 insured by gender and age in 2013



Most accidents occur in animal husbandry

The proportion of accidents occurring in various animal husbandry tasks was about the same as one year previously, or good four in ten (43.0%) of all accidents at work (Table 14). Especially women fell victims to accidents at work when tending cattle, as three fourths (74.9%) of women's accidents at work took place in animal husbandry. Among men, the respective proportion was around one-third (32.7%). The share of accidents was second highest (24.5%) in other agricultural and forestry work, including tasks such as installation and maintenance of machinery and equipment. Approximately one accident in six (14.4%) occurred while performing other tasks related to farming. However, no actual conclusions can be drawn from the available statistical data about the dangerousness of work in different areas, because then the number of working hours spent on different tasks should also be known. The classification of the variables describing the stage of work is national. The classification used by MELA is more detailed than the ESAW variable illustrating the working process (cf. Table 2).

Table 14. Farmers' accidents at work by type of work and gender in 2013

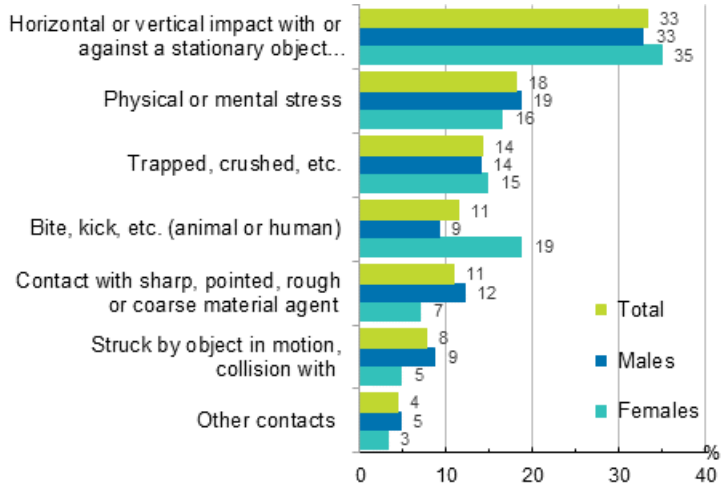
	Total		Males		Females	
	N	%	N	%	N	%
Total	**3 518**	**100**	**2 662**	**100**	**856**	**100**
Farming work	506	14,4	428	16,1	78	9,1
Animal husbandry	1 512	43,0	871	32,7	641	74,9
Forest work	351	10,0	333	12,5	18	2,1
Construction work	146	4,2	126	4,7	20	2,3
Other agricultural and forestry work	862	24,5	777	29,2	85	9,9
Other work	141	3,9	127	4,8	14	1,6

Farmers most often injured as a consequence of horizontal or vertical impact with or against a stationary object

Horizontal or vertical impact with or against a stationary object was the most common mode of injury for farmers. In three cases out of ten (33%), the person was injured due to horizontal or vertical impact with or against the floor, ground or the like (Figure 12). Women farmers were pushed or kicked by an animal more often than men, as every fifth (19%) of women farmers' accidents was caused by an animal. Every tenth (9%) man injured in an accident was hurt by an animal bite, kick or the like.

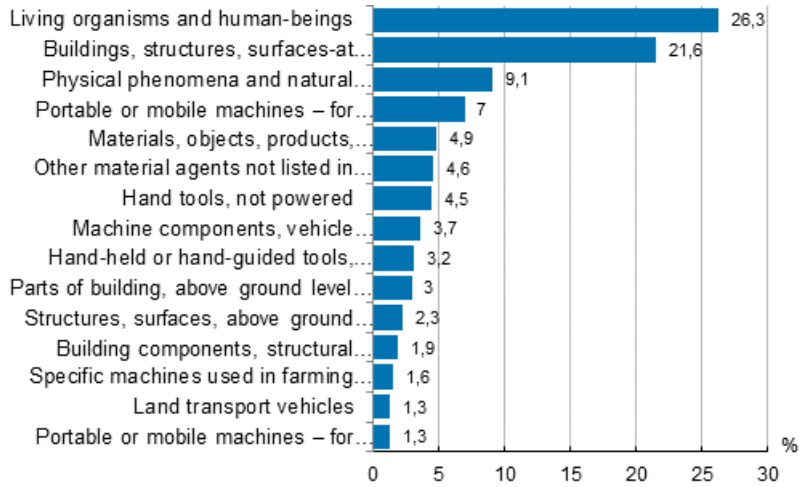
The Farmers' Social Insurance Institution collects data on the material agent, type of injury and injured body part using the ESAW classification.

Figure 12. Farmers' accidents at work by contact-mode of injury (ESAW) and gender in 2013



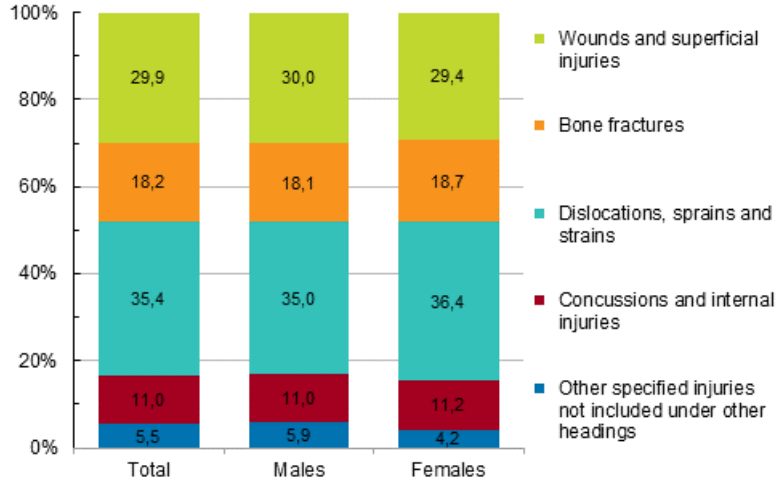
In more than one-quarter (26.3%) of farmers' accidents at work the material agent was an animal or a human-being, or the injury was caused by a plant (Figure 13). In all probability most of these farmers' accidents were expressly caused by animals. Various buildings, structures and surfaces were the material agents in every fifth accident (21.6%). The third most common material agent was noise, pressure, fire, light arcs, light, snow or stretches of water (9.1%).

Figure 13. Farmer's accidents by material agent of contact-mode of injury in 2013



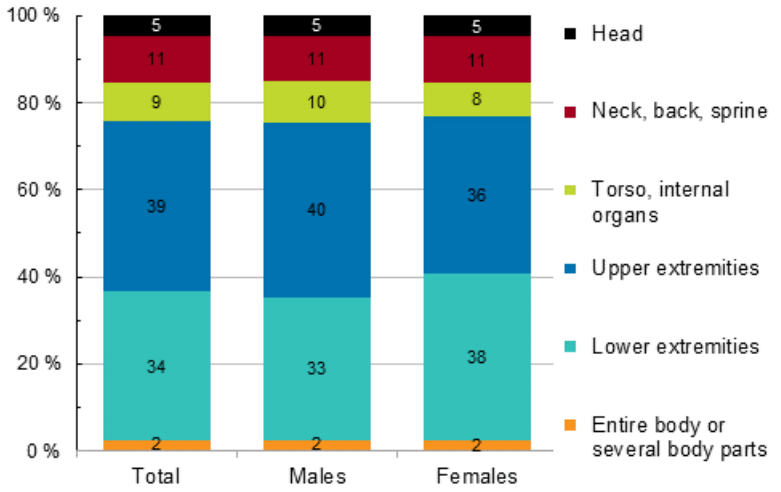
In 2013, a total of 35 per cent of farmers' injuries sustained in accidents at work were various kinds of dislocations, sprains and strains. Wounds and superficial injuries form another large group of injuries (30%). Eighteen per cent of all injuries to farmers were bone fractures. There were no significant differences in the distributions of men's and women's injuries: men's injuries were more often wounds and superficial injuries, while women's injuries were different kinds of sprains and strains (Figure 14).

Figure 14. Farmers' accidents at work by type of injury (ESAW) and gender in 2013



About seven out of ten (73%) of all the accidents at work which occurred to farmers concerned extremities (Figure 15). Women injured their lower extremities more often than men did. Injuries to lower extremities most often involved knees and those to upper extremities palms or fingers.

Figure 15. Farmers' accidents at work by injured body part (ESAW) and gender in 2013



Self-employed persons get injured most often in the industries of construction and transportation and storage

In 2013, insurance companies paid self-employed persons compensation for a total of 6,441 accidents at work. This also includes accidents on which compensation was paid only for medical treatment expenses. The proportion of these accidents at work that led to absence from work for less than four days was about 47 per cent of all self-employed persons' accidents. One year previously compensation was paid for 6,100 accidents. The data concern self-employed persons other than farmers.

In 2013, self-employed persons had 3,441 accidents at work that led to disability of at least four days. This is 95 cases more than in the year before. The gender distribution of accidents at work is the same among self-employed persons as among wage and salary earners: over four in five (85%) of the accidents of self-employed persons occurred to men. The age distribution of victims of accidents at work show that nearly two-thirds (63.0%) of self-employed persons' accidents occurred in the 45 to 54 age group (Table 15).

Table 15. Self-employed persons' accidents at work by gender and age in 2013

Age	Total		Males		Females	
	N	%	N	%	N	%
Total	**3 441**	**100**	**2 910**	**100**	**531**	**100**
	55	1,6	50	1,7	5	0,9
	461	13,4	379	13,0	82	15,4
	759	22,1	647	22,2	112	21,1
	1 216	35,3	1 033	35,5	183	34,5
	814	23,7	688	23,6	126	23,7
Others	136	4,0	113	3,9	23	4,3

Examined by industry, self-employer persons' risk industries are mostly the same as those of wage and salary earners. The most dangerous industries are construction, and transportation and storage. The variables describing the causes and consequences of self-employed persons' accidents are examined more closely in Appendix tables 6 to 9.

Quality Description: Accidents at Work Statistics

1. Relevance of statistical information

1.1 Contents and purpose of statistical information

Accidents at Work statistics contain statistical information on employment and commuting accidents involving wage and salary earners, farmers and other self-employed persons or entrepreneurs.

The information in the Accidents at Work statistics has been obtained by combining register data compiled in connection with occupational accidents insurance and the data of Statistics Finland. Information on accidents involving wage and salary earners and self-employed persons were obtained from the Federation of Accident Insurance Institutions (FAII). The details on accidents involving farmers are based on information collected by the Farmers' Social Insurance Institution (MELA). The information of Statistics Finland's Labour Force Survey (TYTI) and Employment Statistics has also been used in compiling the statistics.

In the statistics, accidents at work are accidents for which insurance companies have paid compensation. The statistics mainly cover accidents at work of the latest statistical reference year, but in addition, various time series also shed light on changes in the occupational accidents situation during the 1990s and 2000s.

1.2 Definitions of concepts used in the accidents at work statistics

Accident at Work

An accident at work is defined in Section 4 of the Employment Accidents Act. An accident at work means any accident causing injury or illness sustained by the employee in the course of his/her employment or in circumstances arising from employment. According to the Act, accidents at work can be divided according to the place where the accident occurs as follows:

• An accident at work has occurred at work or in work-related circumstances. In this case, traffic accidents that occur during work are also defined as accident at work.

• As for commuting accidents, these are accidents that have occurred outside the actual working time while commuting from the employee's residence to work or vice versa.

In the statistics, accidents are categorised according to their severity as follows: accidents at work leading to death and accidents at work leading to at least four days of disability or under four days of disability (so-called minor incidents). The statistics almost exclusively cover accidents at work leading to at least four days of disability.

Accident incidence rate and accident frequency

The different types of accident risks in different industries or occupational and other groups can be established by calculating the ratio between the number of accidents that occur and the number of employees in each industry, or the number of working hours. When the ratios between accidents and the number of employees and working hours are established, these ratios can be considered the "risk figures" of certain occupations or industries. In practice, the susceptibility to accidents varies within an industry, for instance, according to work tasks.

• **Theaccident incidence rate** means the ratio of the number of employees to the accidents that occurred. In accidents that lead to at least four days of disability, the ratio was calculated per 100,000 employees and in fatal accidents per 100,000 employees.

• **The accident frequency** means the ratio of the number of hours worked to the accidents that occurred. The ratio is calculated for 1,000,000 working hours. The frequency is mainly used in comparisons between different industries.

Information on the number of employees and working hours in different industries and occupations is obtained from Statistics Finland's Labour Force Survey.

Occupation

Occupation means an activity or work which constituted the injured party's principal livelihood at the time of the accident. Occupations have been divided into categories on grounds of similar activities, so that education, status in occupation, position or industry does not have an effect on the classification of occupations. Occupations have been categorised by insurance institutions. The insurance institution classification differs slightly from that of Statistics Finland, but for the purposes of this publication, the classification has been harmonised with the one used by Statistics Finland (Statistics Finland: Classification of Occupations 1987).

If the injured party has held several positions, the most dangerous position has been classified as his/her occupation on the grounds of previous information.

The used classification of occupations has a 3-digit structure, but in most tables of the publication, a classification with a 1 or 2-digit structure has been used for the purposes of data protection and reliability. By using a detailed classification, it is possible to identify occupational groups where the risk of an occupational accident is exceptionally high. However, the detailed classification also has its drawbacks: due to the small number of observations in the Labour Force Survey sample, there is some uncertainty related to the calculated accident incidence rates of small occupational groups. The accident incidence rates have only been calculated for occupational categories that have had at least five accidents and 10,000 employees according to the Labour Force Survey sample. It is considered unreliable to calculate an accident incidence rate for a smaller group.

Industry

The classification used in the publication is based on Statistics Finland's Standard Industrial Classification of 2008 (Standard Industrial Classification TOL2008, Handbooks 4, Statistics Finland). The Standard Industrial Classification is a grouping system for companies and equivalent units and establishments with economic activities. The injured party's industry is classified according to the main object of production or type of activity of his/her establishment.

The injured party's industry has been classified by insurance institutions. There may be some uncertainty related to the industry classification, mainly due to the difficulty of classifying multifunctional companies with a single insurance. Accidents occurring in such multifunctional companies fall in the same category regardless of the nature of the activities.

Some municipalities only take out a single insurance on their employees although they employ individuals from several different industries. For this reason, the occupational accidents suffered by the employees of these municipalities fall in the category of the general central government sector.

In the statistics, the Standard Industrial Classification has been used either on the 1 or 2-digit level. The goal was to achieve the most detailed classification in the industries where the number of accidents known to have occurred was greater than average.

ESAW variables (joint European data)

Workstation

The variable describes whether the accident victim was working at a workstation managed by his/her own employer or at a workstation owned or controlled by a party other than his/her employer.

Working process

The working process describes the accident victim's working phase at the time of the accident. However, the working process does not refer to an occupation.

Specific physical activity

The specific physical activity describes the accident victim's actual activities before the accident. Information on this variable specifies the details of the work task with regard to the events preceding the accident.

Deviation

The deviation refers to the last deviant event that led to the accident before the injury occurred.

Contact - mode of injury

The mode of injury describes the way in which the injured body part came into contact with the object that caused the injury.

Material agent of the contact

The material agent of the contact refers to information on the material object with which the injured body part came into contact at the time of the accident.

Part of body injured

The part of body injured refers to the main body part injured in the accident.

Type of injury

The type of injury describes the nature of the physical injury caused by the occupational accident. The information on the type of injury is based either on medical diagnosis or on the description in the accident report.

2. Methodological description of the statistical survey

2.1 Statistical population

The data of the accidents at work statistics, which are part of the Official Statistics of Finland series, have been obtained from several different sources. The Federation of Accident Insurance Institutions (FAII) provides Statistics Finland with the information on accidents to wage and salary earners and self-employed persons, whereas the information on farmers is obtained from the Farmer’s Social Insurance Institution (MELA). In addition, the data of Statistics Finland’s Employment statistics and the Labour Force Survey are used to compile the statistics.

The data of the Federation of Accident Insurance Institutions

The information on accidents involving wage and salary earners and self-employed persons (excl. farmers) is based on the data obtained from the Federation of Accident Insurance Institutions (FAII) in which the individual accident is used as an observation unit. The data include all accidents that occurred between January 1 and December 31 for which insurance companies have paid compensation. The data contain demographic information on the injured party (age, sex) and diverse information on the circumstances of the accident, and the cause and the consequences of the accident. The data content became increasingly versatile when the collection of data conforming to the joint European variable list began in 2003 in connection with the implementation of Eurostat’s new European Statistics on Accidents at Work (ESAW) methodology.

The data on accidents involving wage and salary earners and self-employed persons (excl. farmers) were originally obtained from accident report forms used by employers to inform insurance companies of accidents to their employees. The same forms are used to inform insurance companies of occupational diseases, but in Finland, statistics on occupational diseases and occupational accidents are compiled separately. The Finnish Institute of Occupational Health annually compiles a set of statistics on occupational diseases which is part of the Official Statistics of Finland (OSF) series.

The information is supplemented during the compensation procedures, but final information cannot be expected during the compilation of the statistics. The statistical data (mainly the period of disability) are updated almost 1.5 years after the end of the year following the accident. This means for instance that the information in the data for the 2010 statistics has been supplemented until early 2012. The relatively long period is required to ensure the sufficient reliability of the data.

The data of the Farmers' Social Insurance Institution

The information on accidents involving farmers is based on the comprehensive individual-level total data provided to Statistics Finland by the Farmers' Social Insurance Institution. These data contain information on all occupational accidents for which the MELA has paid compensation.

The basic acts on farmers' accident insurance are included in the Farmers' Accident Insurance Act. The compulsory insurance covers farmers aged 18 to 64 years who reside in Finland. A farmer is an individual involved in agricultural activities on a farm of at least five hectares on his/her own or joint account, as a member of a family business or as a self-employed person's cohabitant. Fishermen involved in professional fishing activities without an employment relationship or as family members are also considered farmers. Reindeer rearers involved in reindeer husbandry on their own account, or who are employed by a family member or a married couple, and persons involved in reindeer husbandry as a reindeer owner's family members, are also considered farmers.

The definition of "accident" used in the statistics corresponds to the definition of accidents involving other self-employed persons and wage and salary earners. Farmers involved in regular agricultural activities but who are excluded from compulsory insurance due to their age or their small labour input may take out an optional accident insurance policy. The content of the data is largely equivalent to the data compiled by the FAII. For some variables, the MELA classification is more detailed than that of the FAII data.

The data of Statistics Finland

Statistics Finland's Employment statistics have also been used to compile the statistics: information on accident victims' level of education has been collected from these statistics by using social security numbers. Statistics Finland annually compiles the Employment statistics, whose main purpose is to provide regional information on the population's economical activities. Information on the number of employees and labour input (hours worked) has been obtained from Statistics Finland's Labour Force Survey. The survey illustrates the employment of the entire population aged 15 to 64. The Labour Force Survey's average annual data are used to compile the statistics.

3. Correctness and accuracy of data

3.1 The reliability of the data

In Finland, private insurance companies are in charge of accident insurance. The Federation of Accident Insurance Institutions (FAII) is the central body of the statutory accident insurance whose main purpose is to coordinate the implementation of statutory accident insurance. In Finland, insurance companies that provide statutory accident insurance must be members of the FAII.

For work done for the employer, the employer must take out an obligatory accident insurance policy in accordance with the Accident Insurance Act (608/48) at an insurance company licensed to issue accident insurance policies. However, the employer's obligation to take out insurance does not begin until the work done for the employer during a calendar year exceeds 12 days. The obligation to take out insurance does not concern State officials or individuals with a working relationship with the State. However, the State must pay them compensation from State resources for occupational accidents and occupational diseases in accordance with the Accident Insurance Act.

As for accidents involving wage and salary earners, the statistical coverage is good, since all employees are in practice covered by the accident compensation. Accident reporting is not neglected, since reporting accidents is financially profitable to the employer. Coverage is also affected by the employer's choice of either a compulsory or fully comprehensive insurance. The fully comprehensive insurance does not include the employer's contribution. The information on accidents involving central government sector wage and salary earners has been obtained from the FAII. As for the information on accidents involving State employees, this was originally obtained from the State Treasury, but Statistics Finland can also acquire it through the FAII.

The insurance is optional for self-employed persons except for farmers, who must take out a compulsory insurance policy at the Farmer's Social Insurance Institution (MELA) if the size of the farm exceeds five hectares. Fishermen and reindeer rearers must also take out an insurance policy at the MELA. For this reason, all occupational accidents involving self-employed persons mentioned above are comprehensively included in the statistics. The MELA has a national network of agents who transmit accident information to the MELA. As for other self-employed persons, they may take out optional insurance policies.

Approximately 41 to 42 per cent of self-employed persons other than farmers have taken out an optional accident insurance policy.

In 2011, accident data was collected according to the ESAW variables for the ninth time. Compared with the previous years, the distributions seem uniform and reasonable. In addition, the variables describing the chain of events leading to an accident are similar. With increasing experience, however, adjustments may be made to the recording instructions. Over the years to come, this may have some effect on the results related to the ESAW variables that were obtained from the data.

Information on occupational accidents is collected by using accident report forms. Accident reporting is usually not neglected, since fulfilling the reporting obligation is financially profitable to the employer. The MELA data are probably more reliable than those of the FAII, since the employees recording the statistics are also in charge of the compensation procedures. The reliability of the data is also improved by the fact that the MELA agents act as intermediaries in filling in and submitting compensation applications.

4. Timeliness and promptness of published data

4.1 The frequency and the assessment period of the statistics

The accidents at work statistics data are completed with the delay of "n+1 years", where n refers to the statistical year. For instance, the data on the accidents at work of 2011 are completed at the beginning of 2013. However, the data are not final at the completion: due to compensation procedures, they will be complemented with a few cases even after having been submitted to Statistics Finland. Since the breaking point is the same every year, statistical years are comparable, unless other, e.g. legislative changes affecting the compensation practices have occurred.

The relatively long delay is indispensable due to the final information on consequences. Information on consequences means the duration of disability due to an injury or the number of days absent from work. The long delay ensures sufficient reliability of the data.

According to the Accident Insurance Act, daily benefits are paid if the injured individual is fully or partially incapacitated for at least three consecutive days, excluding the day of the accident.

5. Accessibility and transparency/clarity of data

Since the statistical reference year 2005, the accidents at work statistics are only published online. The online publication and database tables on the statistics are available at: http://tilastokeskus.fi/til/ttap/index_en.html.

The Working conditions research and adult education statistics unit of the Social Statistics Department are in charge of the publication of the accidents at work statistics. The persons responsible for the statistics are Arto Miettinen (firstname.lastname@stat.fi) and Tarja Seppänen (firstname.lastname@stat.fi).

6. Comparability of statistics

6.1 Additional information on accidents at work and occupational diseases

Other parties also provide information on accidents at work and occupational diseases:

The Federation of Accident Insurance Institutions (FAII)

The FAII annually publishes its own statistics on accidents at work and diseases for which compensation has been paid. The statistics are available in print and online. In addition, the FAII publishes on its website cross-sectional statistics that compare two time periods. In these statistics, the accidents at work figures are not final. The statistics can be used to examine the tendency in the number of accidents. The statistical data published by the FAII and Statistics Finland are based on the same source data, but the principles for

statistics compilation differ. Since 2005, both Statistics Finland and the FAII have defined an accidents at work as disability for at least four days. This is the definition used in the Eurostat accidents at work statistics. The statistics published by the FAII do not include accidents involving self-employed persons. Both the FAII and Statistics Finland have a separate category for the central government sector.

The FAII also publishes survey reports on accidents at work leading to death which are based on the fatal workplace accident investigation system (TOT).

The Farmer's Social Insurance Institution

The Farmer's Social Insurance Institution publishes its own statistics on accidents at work involving farmers.

The Finnish Institute of Occupational Health

Since 1964, the Finnish Institute of Occupational Health has maintained a register of work-related diseases (formerly the occupational diseases register). The register includes information on new occupational diseases reported to insurance companies and on new occupational diseases reported to labour protection authorities by physicians, and on other work-related pathological conditions. The Finnish Institute of Occupational Health annually publishes a set of statistics on diagnosed occupational diseases. The Finnish Institute of Occupational Health also releases accidents at work statistics in which central government sector accidents at work are included according to occupation.

Eurostat

The Statistical Office of the European Communities (Eurostat) annually publishes information on accidents at work in the European Union Member States (European Statistics on Accidents at Work, ESAW).

Miscellaneous

The Labour Protection Department of the Ministry of Social Affairs and Health maintains an accident report register which contains data on accidents at work leading to severe injuries or death from 1982 onwards. The documents report on the course of the accident, the direct and indirect reasons for the accident and the possibility of preventing similar accidents in the future. Since 1985, investigated work and workplace accidents leading to death have been included in the register as a result of an agreement between the Federation of Accident Insurance Institutions (FAII) and the central labour market organisations.

Information on accidents at work involving forest holders and wage and salary earners is available in the Forest Statistics Yearbook published by the Finnish Forest Research Institute.

6.2 Time series

The contents of the accidents at work statistics have not remained the same over the years, as the occupational accident statistics time series also includes the occupational diseases discovered between 1976 and 1994. However, commuting accidents were not included in the figures of this time period. This information has been collected since 1992.

Accidents at work involving self-employed persons have only been included in the statistics if the self-employed person has taken out an optional insurance policy. Approx. 41 to 42 per cent of self-employed persons currently have an occupational accident insurance policy (n = 125,000). Therefore, the number of accidents also reflects the popularity of insurance policies among self-employed persons. It can be estimated that individuals involved in high-risk jobs are more likely to take out an insurance policy than those whose line of work involves fewer risks. Between 1995 and 2010, the number of accidents at work involving self-employed persons has varied between 2,000 and 3,500 cases.

Since 1992, the accidents at work statistics have been compiled at Statistics Finland. Since the 2007 statistics reform, it has been possible to update reliably the time series on wage and salary earners' employment accidents until 1996. The accidents at work information on farmers can be obtained from 2000 onwards.

6.3 Statistics Finland’s accidents at work statistics reform

In 2007, Statistics Finland’s accidents at work statistics (reference year 2005) were harmonised with the Eurostat ESAW statistics as a result of statistical cooperation. At the same time, justified changes were made to enable nationally uniform figures as well. The changes or amendments made were as follows:

• The definition of disability for at least four days was adopted (until 2004, the time period was at least 3 days)

• Statutory injury (SAPA60) cases were included in the data.

• Schoolchildren working under work-experience programmes, institutional population, etc. were removed from the ratio examinations (they are not included in Statistics Finland’s Labour Force Survey figures)

• Based on the type of insurance policy, some self-employed persons had previously been considered wage and salary earners; the FAII corrected the error, and the corrected data for 1996 to 2005 were received in May 2007

• The key figure for the accident incidence rate describing the ratio between accidents and the number of employees was calculated for 100,000 employees. Until 2004, the key figure was calculated for 1,000 employees.

• In the industry examination, the central government sector is given as a separate category

As for wage and salary earners, it was possible to update the time series to reflect the changes until 1996. As for farmers, the time series goes back to 2000.

7. Coherence and consistency/uniformity

The coherence and comparability of the statistics with other sets of statistics has been presented in 6.1.

Statistics Finland

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