

## ANALYSIS

3 February 2014

## Great Differences in the Extent of Work at Unsocial Hours among Occupations and Economic Activities

In 2012 every third respondent worked at least sometimes in the evening within the reference period of four weeks. Frequency of work at night of employees in the Czech Republic belongs to the highest in the EU28. Work at unsocial hours, including work on days-off, is quite often in numerous occupations and in certain economic activities.

The number of hours worked is affected in a significant way not merely by the number of working persons, type of employment contract, structure of economic position, yet also by the **number of hours worked at unsocial hours**. Work at unsocial hours is shift work, work in the evening, work at night, and work on days-off. Shift work was analysed in detail in the analysis accompanying the News Release on Employment and Unemployment in the Czech Republic according to LFSS Results – Q3 2013 ([Women Work Shifts as Frequent as Men](#)).

### A. Evening Hours Are Often Work Time of Persons Working in Service Occupations

Almost one third of respondents stated that they worked sometimes in the evening within the four-week reference period<sup>1</sup>. When grossed up to the whole population the number of these persons in 2012 got near to the limit of one and a half million persons. Entrepreneurs work in the evening more often than employees (36% of the entrepreneurs, including family workers, but less than 30% of employees).

There are higher differences among respective major groups of occupations than if measured by the economic position. **Over one half of respondents of the major group of plant and machine operators, and assemblers work in the evening, at least sometimes, and the working persons of the major group of service and sales workers is close to them.** A high share of work in the evening can be found in employees of armed forces and in qualified workers in agriculture. More than a quarter of respondents in the major group of managers and almost 28% of persons working in the large major group of craft and related trades workers also gave work at this time.

On the contrary, it is namely clerical workers and also working persons classified as specialists or professionals who work minimum hours in the evening or less than those in other major groups, respectively.

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<sup>1</sup> *Methodological Note:*

*Work in the evening is performed after the common working hours yet before hours, which are usually sleeping time. For practical reasons in the LFSS work in the evening was determined as work performed from 19 to 23 o'clock.*

*Work at night is such work which is performed in time when people usually sleep. For the survey purpose the period of such work was determined from 23 to 6 o'clock.*

*Cases of regular work in unsocial hours and cases of less frequently performed work in such hours are not distinguished in the analysis,*

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It is, first of all, the composition of occupations, which affects directly differences in work in the evening between respective sections of economic activities. Work in the evening is frequent in economic activities with high level of shift work as, for instance, in mining and quarrying, transportation and storage, and, in the tertiary sector, namely in accommodation and food service activities. Work in the evening is also frequent in human health and social work activities, and is even common in activities of households as employers (83% of all working persons in the section).

In numerous divisions of the services sector work in the evening is applied just seldom, namely in education and in financial and insurance activities. There is less work in the evening in the secondary sector of water supply, waste management and especially in construction. The following table shows great differences in the extent of work in the evening in respective sections of economic activities and also by sex.

### The number of persons working at least sometimes in the evening and their share in the total employment by economic activity and by sex in 2012

The employed aged 15-64 years		Total		Males		Females	
		Persons (thous.).	Share (%)	Persons (thous.).	Share (%)	Persons (thous.).	Share (%)
<b>At least sometimes working in the evening, total:</b>		<b>1476.6</b>	<b>30.8</b>	<b>927.8</b>	<b>34.1</b>	<b>548.8</b>	<b>26.5</b>
<b>C Z - N A C E</b>	<b>Section</b>						
Section description:							
Agriculture, forestry and fishing	A	39.3	24.1	27.4	23.9	11.9	24.8
Mining and quarrying	B	21.2	52.4	20.6	55.9	.	.
Manufacturing	C	470.4	36.7	314.2	36.7	156.2	36.7
Electricity, gas, steam and air conditioning supply	D	16.2	33.0	15.7	38.7	.	.
Water supply; sewerage, waste management and remediation activities	E	7.5	14.7	6.8	16.4	.	.
Construction	F	53.5	13.0	50.3	13.4	3.2	8.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	145.7	25.5	69.9	27.2	75.8	24.2
Transportation and storage	H	154.2	50.1	133.7	57.8	20.5	26.8
Accommodation and food service activities	I	104.1	61.5	49.9	74.1	54.2	53.2
Information and communication	J	34.1	28.6	28.3	31.6	5.8	19.3
Financial and insurance activities	K	22.8	17.1	14.4	25.2	8.4	11.1
Real estate activities	L	11.8	27.0	7.9	35.9	3.9	18.0
Professional, scientific and technical activities	M	53.3	26.9	30.0	30.7	23.3	23.1
Administrative and support service activities	N	39.5	33.4	29.1	41.5	10.4	21.6
Public administration and defence; compulsory social security	O	68.5	22.5	61.6	37.8	6.9	4.9
Education	P	25.3	8.1	8.7	12.3	16.7	6.9
Human health and social work activities	Q	137.7	42.3	30.9	48.6	106.8	40.8
Arts, entertainment and recreation	R	28.5	39.2	15.9	49.7	12.6	30.9

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Other service activities	S	25.9	27.1	8.7	33.8	17.2	24.7
Activities of households as employers	T	17.1	83.2	3.7	76.0	13.4	85.4

Source: CZSO - LFSS

In the European Union work in the evening is more broadly applied than in the Czech Republic, both in the group of employees and, mainly, in the group of entrepreneurs. A detailed comparison with the average of the EU28 is given in the conclusion of the analysis.

### B. Work at Night Is More Frequent in the Czech Republic than in Majority of the EU Member States

Within the sample survey every sixth respondent (of almost 780 thous. persons after grossing-up) stated that they at least sometimes worked at night from 23 to 6 o'clock within the reference period. **On the contrary to work in the evening employees work at this time more frequently (over 18%) than entrepreneurs with employees (6%), or own account workers (less than 8%).** Intensity of work at night of employees follows, first of all, from the way the shift work regime is applied in respective occupations. Almost 37% of all persons working as plant and machine operators, and assemblers (a quarter of million when grossed up to the whole population) and also almost one fourth of persons working in services and whole and retail sale work, at least sometimes, at night. Employees in the armed forces also work in the evening quite often yet they represent the smallest of all major groups of occupations of the CZ-ISCO.

**Shares of persons who at least sometimes worked at night by major group of the CZ-ISCO in 2012**



Source: CZSO - LFSS

Work at night is frequent in manufacturing (almost 300 thous. persons), in transportation and storage, and in human health and social work activities. In these three major sections there are

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two thirds of all respondents, who gave they worked at this time. The most frequent use of work at night is employed in such different economic activities as activities of households as employers or mining and quarrying.

There are economic activities, which feature virtually no work at night, as, for example, construction or financial and insurance activities, and education, real estate activities, and professional, scientific and technical activities of the services sector. Persons working in market organisations, where the two-shift regime is rather applied, gave work at night exceptionally as well as entrepreneurs.

Concerning the extent of work at night in males and females, it is males in manufacturing who work most at night (over 200 thous. persons). Such work regime is also very frequent in males in transportation and storage and in public administration and defence; compulsory social security (due to influence of a large extent of work at night in the armed forces, in the Police of the CR, and in the Fire Brigade). The highest number of females work at night in manufacturing (94 thous. persons). Females also very often work at night in human health and social work activities (90 thous. persons), of which more than one third of all females employed in this section sometimes worked at night. In accommodation and food service activities almost one fourth of all females employed in the economic activities worked sometimes at night. Females employed in private households demonstrated the highest share of work at night yet their absolute number is lower.

### The number of persons working at least sometimes at night and their share in the total employment by economic activity and by sex in 2012

The employed aged 15-64 years		Total		Males		Females	
		Persons (thous.)	Share (%)	Persons (thous.)		Persons (thous.)	Share (%)
<b>At least sometimes working at night, total:</b>		<b>776.7</b>	<b>16.2</b>	<b>500.9</b>	<b>18.4</b>	<b>275.7</b>	<b>13.3</b>
<b>C Z - N A C E</b>	<b>Section</b>						
Section description:							
Agriculture, forestry and fishing	A	20.6	12.7	13.6	11.9	7.0	14.6
Mining and quarrying	B	19.4	47.9	18.8	51.0	.	.
Manufacturing	C	295.1	23.0	201.4	23.5	93.7	22.0
Electricity, gas, steam and air conditioning supply	D	11.2	22.9	10.8	26.5	.	.
Water supply; sewerage, waste management and remediation activities	E	5.5	10.8	5.1	12.3	.	.
Construction	F	7.9	1.9	6.9	1.8	1.0	2.6
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	22.1	3.9	11.3	4.4	10.8	3.4
Transportation and storage	H	107.1	34.8	93.2	40.3	13.9	18.2
Accommodation and food service activities	I	44.9	26.6	21.3	31.7	23.6	23.2
Information and communication	J	7.5	6.2	6.5	7.2	1.0	3.3
Financial and insurance activities	K	2.6	1.9	1.5	2.7	1.0	1.4
Real estate activities	L	1.6	3.7	1.0	4.7	.	.
Professional, scientific and technical activities	M	8.1	4.1	5.8	5.9	2.3	2.3

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Administrative and support service activities	N	26.8	22.7	22.0	31.3	4.8	10.1
Public administration and defence; compulsory social security	O	52.9	17.4	48.8	30.0	4.1	2.9
Education	P	6.6	2.1	1.3	1.9	5.3	2.2
Human health and social work activities	Q	113.2	34.8	23.4	36.7	89.9	34.3
Arts, entertainment and recreation	R	8.0	11.0	4.4	13.8	3.6	8.8
Other service activities	S	2.0	2.1	.	.	1.3	1.8
Activities of households as employers	T	13.5	65.5	3.0	61.9	10.5	66.7

Source: CZSO - LFSS

The Czechs work at night more frequently than it is usual in the European Union. This holds especially for females. This is unambiguously related to a high number of employees in organisations, which are operated all day round.

### C. Entrepreneurs Work More Often on Days-Off than Employees

**Almost 40% of respondents stated that were at work on Saturdays at least sometimes during the reference period of four weeks.** The share of such persons is extraordinary high in numerous economic activities, especially in the tertiary sector. In the section of activities of households as employers it was 90% of all working persons. The shares in human health and social work activities and in transportation were over one half and almost 53 % of working persons, respectively. The employed in whole and retail trade work on Saturdays very often (60%) as well as those in accommodation and food service activities (73%). While this work extent is lower in manufacturing work on Saturdays is relatively frequent in mining and quarrying and in the primary section of agriculture. On the contrary, work on Saturdays is just seldom given in education or in financial and insurance activities.

It is clear from the previous data that differences in frequency of work in the evening of entrepreneurs and employees are small and the employees work even more often at night than entrepreneurs. Situation with work on Saturdays is different. Almost two thirds of all entrepreneurs worked on Saturdays, at least sometimes, yet merely one third of employees do. This difference may, to a certain extent, be related to the fact work of employees on days-off should be given only in cases it followed from their contract of employment<sup>2</sup>. Nevertheless, the difference in activity of respondents by their economic position is apparent.

Differences between the extent of work on Saturdays in males and in females are determined by the structure of occupations and economic activities and by differences in the position in employment. In males the highest number of persons working on Saturdays was found in manufacturing (over 276 thous. males), and then in construction when grossed-up to the whole

<sup>2</sup> *Methodological Note:*

*In the case of employees work on Saturdays or on Sundays should follow from provisions of their contracts of employment. Cases when employees take a portion of their work home or work at their workplaces on Saturdays or on Sundays, should not be classified as work in unsocial hours, unless they follow from the contract of employment. This analysis considers all cases when employees performed work in such hours at least once within the period of four weeks.*

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population. Males working in whole and retail trade and in transportation and storage also gave very often they work on Saturdays. The different structure of economic activities of working females is principally reflected in the substantial extent of work on Saturdays in two large sections, in whole and retail trade (over 203 thous. females) and in organisations of human health and social work activities (130 thous. females). The absolute number of females working on Saturdays in human health and social work activities is even significantly higher than that of females working in manufacturing.

### The number of persons working at least sometimes on Saturdays and their share in the total employment by economic activity and by sex in 2012

The employed aged 15-64 years		Total		Males		Females	
		Persons (thous.)	Share (%)	Persons (thous.)	Share (%)	Persons (thous.)	Share (%)
<b>At least sometimes working on Saturdays, total:</b>		<b>1891.2</b>	<b>39.5</b>	<b>1176.6</b>	<b>43.3</b>	<b>714.6</b>	<b>34.5</b>
<b>C Z - N A C E</b>							
	<b>Section</b>						
Section description:							
Agriculture, forestry and fishing	A	92.6	56.9	67.6	59.0	25.0	52.1
Mining and quarrying	B	21.5	53.1	20.7	56.1	.	.
Manufacturing	C	377.9	29.5	276.2	32.3	101.7	23.9
Electricity, gas, steam and air conditioning supply	D	16.9	34.4	16.2	39.9	.	.
Water supply; sewerage, waste management and remediation activities	E	16.7	32.7	15.8	38.1	.	.
Construction	F	180.3	43.7	175.1	46.5	5.3	14.5
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	343.9	60.2	140.4	54.6	203.4	64.9
Transportation and storage	H	162.6	52.8	136.0	58.7	26.7	34.9
Accommodation and food service activities	I	123.3	72.9	57.9	86.1	65.3	64.2
Information and communication	J	33.2	27.8	26.6	29.7	6.6	22.1
Financial and insurance activities	K	26.0	19.5	15.4	26.8	10.6	14.0
Real estate activities	L	19.4	44.2	11.7	53.3	7.6	35.0
Professional, scientific and technical activities	M	57.7	29.1	32.2	32.9	25.5	25.3
Administrative and support service activities	N	49.7	42.0	35.6	50.6	14.2	29.5
Public administration and defence; compulsory social security	O	76.6	25.1	64.9	39.8	11.7	8.3
Education	P	20.8	6.7	9.5	13.5	11.2	4.7
Human health and social work activities	Q	165.1	50.7	35.1	55.2	130.0	49.7
Arts, entertainment and recreation	R	41.4	57.0	22.2	69.6	19.2	47.1
Other service activities	S	47.1	49.5	13.5	52.5	33.6	48.4
Activities of households as employers	T	18.7	90.7	4.1	83.7	14.6	92.9

Source: CZSO - LFSS

**Work on Sundays** is logically less frequent than work on Saturdays. Although more than one fourth of respondents (1 250 thous. persons) stated they at least sometimes worked on Sundays for wage or reward within the four-week reference period. Concerning the position in

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employment, the difference between employees and entrepreneurs is conversely lower than that in the case of work on Saturdays (35% entrepreneurs compared to one fourth of employees).

Work on Sundays was again found most frequently in the employed in activities of households as employers and in accommodation and food service activities, and very often in human health and social work activities. It is worth noticing that the difference between the shares of males and females working on Sundays is relatively small, which follows, first of all, from a high number of females working in organisations providing human health and social care services. The number of females working on Sundays in this section of economic activities even outnumbers both the number of females working in manufacturing and that of working in whole and retail trade. Table below gives sections of economic activities with highest numbers of persons that worked at least sometimes on Sundays.

### Economic activities with the highest numbers of cases of work on Sundays in 2012

The employed aged 15-64 years		Total		Males		Females	
		Persons (thous.)	Share (%)	Persons (thous.)	Share (%)	Persons (thous.)	Share (%)
C Z - N A C E	Section						
Manufacturing	C	245.0	19.1	175.6	20.5	69.3	16.3
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	168.0	29.4	62.1	24.1	105.9	33.8
Transportation and storage	H	122.4	39.8	106.7	46.1	15.7	20.6
Accommodation and food service activities	I	112.6	66.6	52.9	78.5	59.7	58.7
Human health and social work activities	Q	152.0	46.7	30.8	48.4	121.3	46.3

Source: CZSO - LFSS

### D. Work Activities at Unsocial Hours in the EU and in the Czech Republic

**Compared to other Member States of the European Union Czech citizens work less frequently in the evening and on Saturdays, on the contrary, they work more at night.**

Concerning frequency of work on Sundays its level in the Czech Republic is around that of the average for the EU28.

**In the evening** both males and females work less frequently in the Czech Republic. The share of persons working at least sometimes in the evening significantly fluctuates in the European Union. This is to a certain extent due to the way in which respective countries determined the time span for such work. Although it is clear that this share in the Czech Republic is lower than the average for the EU28.

Compared to our neighbouring countries not only the Germans and the Slovaks yet also the Poles (this is the effect of a high share of agricultural industry) work more often in the evening. Work in the evening is also more frequent in Austria. It can be seen from the sample survey

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data that work in the evening is more common in countries of North and West Europe, except Luxembourg; conversely, in the counties more down to the South there are big differences. It is interesting that the lowest shares of persons working in the evening were found in Italy, Cyprus, Portugal, and Malta. It is likely that in some of these countries the extent of such work was affected by economic conditions in 2012.

### Comparison of the shares of persons working at unsocial hours in the Czech Republic and the average for the EU28 by sex in 2012

The employed aged 15-64 years	Czech Republic			EU28			%
	Total	Males	Females	Total	Males	Females	
<b>Work in unsocial hours:</b>							
In the evening	30.8	34.1	26.5	37.1	41.0	32.5	
At night	16.2	18.4	13.3	14.6	18.4	10.0	
On Saturdays	39.5	43.3	34.5	45.5	48.5	41.9	
On Sundays	26.1	27.8	23.8	26.8	28.1	25.3	

Source: CZSO - LFSS

From the economic position point of view employees in the Czech Republic work in the evening less often than the average for the EU28 (29.7% compared to 34.7%), but a substantially greater difference can be found in the group of entrepreneurs. Within the EU28 average a half of entrepreneurs carried out their work activities in the evening in the reference period; in the Czech Republic this number was slightly above one third of entrepreneurs or family workers.

The situation is different concerning work **at night**. The Czech Republic is ranked ninth in the EU28 concerning the share of persons working at night. It is also interesting that our country neighbours in Slovakia, Poland, and Austria work at night even more often (and in Germany the frequency is just slightly lower than that in the Czech Republic). Thus the whole region feature substantially higher frequency of work at night than that in majority of European countries regardless their economic advancement.

Intensity of work at night of Czech entrepreneurs is a bit lower than the average of the EU28. There is no doubt that work in the evening and at night in this group is substantially affected by the specific structure of occupations of the Czech entrepreneurs, for instance by a high share of entrepreneurs in construction, in which daytime is an important limiting factor of the work performance.

**The Czech Republic, on the contrary, features one of the highest shares of work at night in the group of employees (ranked 7<sup>th</sup>).** While the share of males working sometimes at night is identical with that in the EU28 (roughly one fifth of working males), females in the Czech Republic work at night more frequently than females in all other EU Member States but Slovakia and Ireland. This is determined, first of all, by a high share of females working at night in manufacturing, accommodation and food service activities, and namely in human health and social work activities. This puts a significant burden on numerous female employees who must

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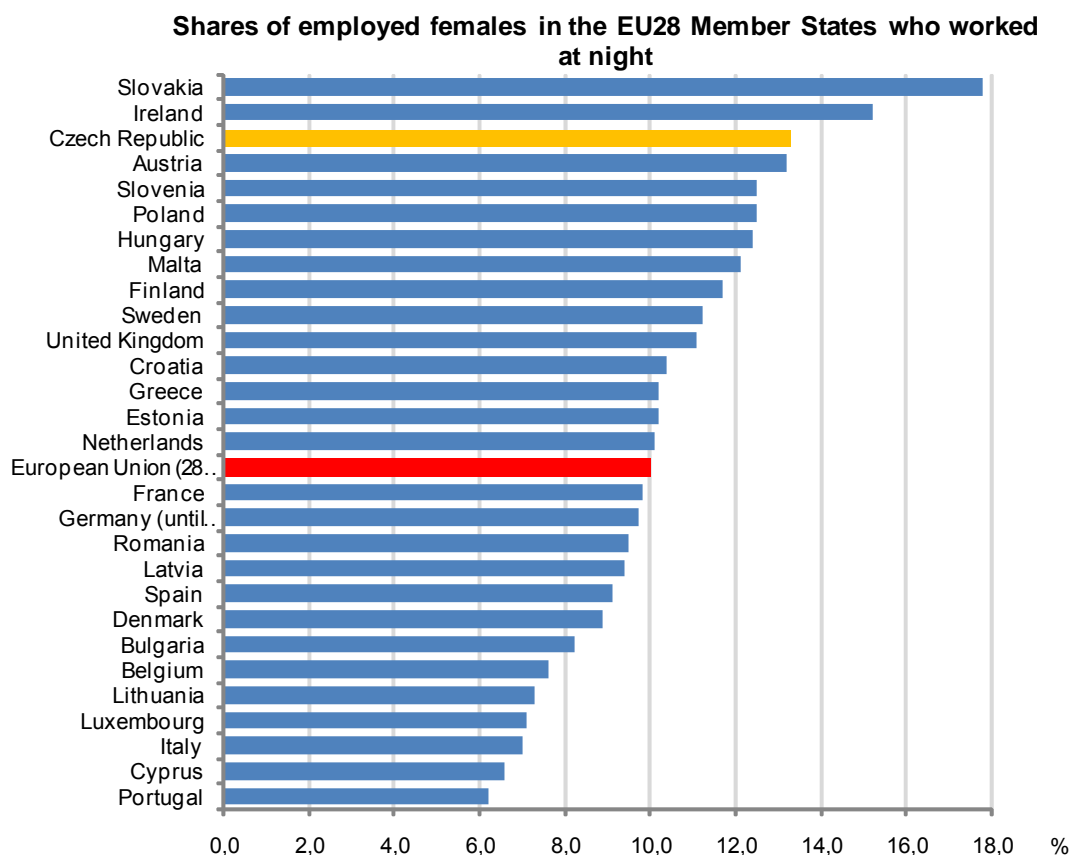
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harmonise their work and family lives. The term used by Eurostat (population in employment working during unsocial hours) seems to be very fitting.



Source: Eurostat, Labour Force Survey

**Differences in the work regime are also demonstrated in different frequencies of work activities on Saturdays and Sundays.** Work on Saturdays is on average more frequent in the EU Member States than in the Czech Republic. This holds for both entrepreneurs and employees. There are countries where majority of working persons state that they have worked at least sometimes on Saturday in the reference period. This is most frequent in Croatia (almost 70%!), Greece, Romania, and France. In numerous countries the work on Saturdays is undoubtedly related to tourism. Work on Saturdays is also more frequent in our neighbouring countries. In Slovakia, which has been showing numerous similar socio-economic features due to our common history, work on Saturdays is even substantially more frequent than in the Czech Republic.

There are less hours worked on Sundays than on Saturdays. Data for the Czech Republic differ just slightly on average from those for the EU28. The fact worth noticing is that work on

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Sundays in Slovakia is in our East neighbour country much more frequent and the same holds for work on Saturdays.

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