

## ANALYSIS

3 November 2017

### Share of Employees Working Shifts Almost Doubled in the Ústí nad Labem Region Compared to That in Prague

In 2016 there were 1 207.8 thousand persons working shifts, i.e. 29% of all employees aged 15–64 years. This share is the fifth highest in the whole EU28. A high shift-work share can be found in males as well as in females in the Czech Republic. Great differences can be found in shift work shares among respective regions of the Czech Republic.

Since 2002 data on respondents working shifts according to the unified methodology of Eurostat<sup>1</sup> have been acquired within the Labour Force Sample Survey (LFSS). In the recent decade their share got stabilised at the level of 28.0–29.0%. Last year it was exactly 29.0%. Putting it in absolute figures there were in total 1 207.8 thousand employees working shifts in 2016.

#### A. In Numerous Economic Activities and Groups of Occupations Shift Work Is in Common Use

The highest number of employees worked shifts in manufacturing (536.0 thousand persons), followed by trade (145.5 thousand persons), human health and social work activities (138.6 thousand persons), and in transportation and storage (106.2 thousand persons). Over three quarters of all employees working shifts were employed in these four economic activities sections. Shift work is also important in other economic activities. In mining and quarrying there was almost a half of all employees working shifts and accommodation and food service activities have also a high share of shift work. On the contrary, shift work is minimum in professional, scientific and technical activities, education, financial and insurance activities, and in information and communication. The large section of construction also features a low share of shift work.

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

*Shift work is a regular work regime, this type of work is characteristic for difference groups of workers or individual workers change at the same workplace and perform the same work activities. What is important is taking over and handing over of the work. Switching of various workers at the workplace is inevitable prerequisite the work is classified as shift work. Shift work relates to the respondent not to the characteristics of the business or organisation operation. Occupations and jobs, which do not feature shift work character (for instance, technology and economy workers), are excluded, although other workplaces of the same business may work in two- or more shift operation. Shift work is measured for employees and members of producer cooperatives, not for the self-employed.*

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### Numbers and shares of persons working shifts in the employees aged 15–64 years by economic activities section of the CZ-NACE in 2016

Indicator	Employees incl. members of producer cooperatives			
	Total (thousand persons)	Of which working shifts in main job in recent four weeks		
		Thousand persons	Percentage of employees	
<b>Total employees aged 15–64 years</b>	<b>4 167.7</b>	<b>1 207.8</b>	<b>29.0</b>	
<b>Employees in economic sections of CZ-NACE</b>				
<b>Of which</b>				
Agriculture, forestry and fishing	A	107.0	19.2	17.9
Mining and quarrying	B	33.9	16.9	49.8
Manufacturing	C	1 310.4	536.0	40.9
Electricity, gas, steam and air conditioning supply	D	45.9	14.7	32.0
Water supply; sewerage, waste management and remediation activities	E	52.2	7.4	14.1
Construction	F	232.0	12.8	5.5
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	459.9	145.5	31.6
Transportation and storage	H	282.5	106.2	37.6
Accommodation and food service activities	I	131.5	64.9	49.3
Information and communication	J	109.6	10.2	9.3
Financial and insurance activities	K	84.7	6.2	7.3
Real estate activities	L	16.4	1.1	6.7
Professional, scientific and technical activities	M	145.3	3.6	2.5
Administrative and support service activities	N	98.3	31.2	31.7
Public administration and defence; compulsory social security	O	316.9	56.9	17.9
Education	P	306.4	16.4	5.3
Human health and social work activities	Q	328.4	138.6	42.2
Arts, entertainment and recreation	R	66.2	13.5	20.4

Source: CZSO, Labour Force Sample Survey

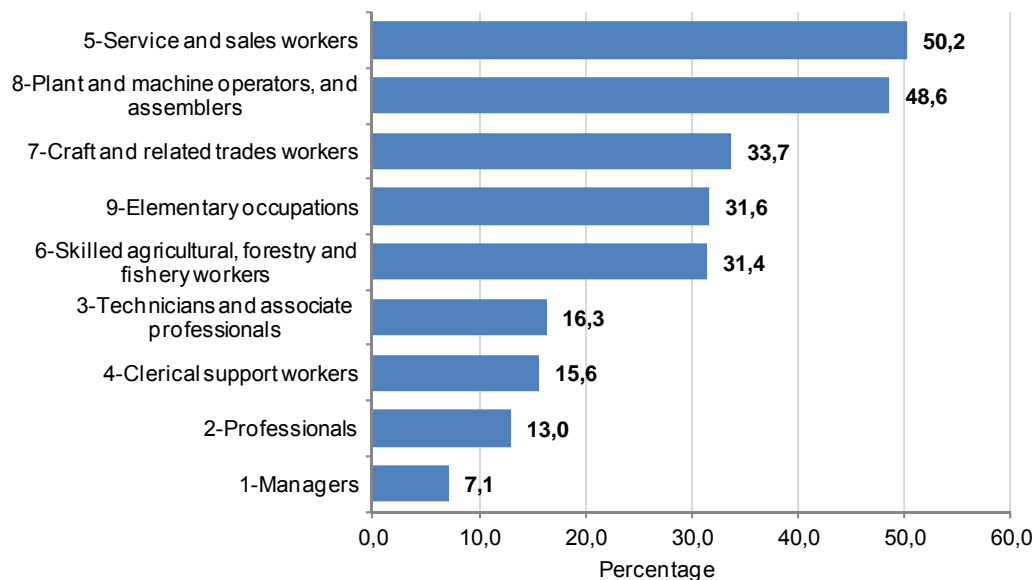
Great differences are among groups if occupations according to the CZ-ISCO. Managers work in shift regime just rarely. The share of shift workers is low also in the main group of professionals, lower shares are also found in clerical support workers, yet also in technicians and associate professionals. Conversely, over a half of the employed as service and sales workers work shifts; plant and machine operators, and assemblers, and related trades workers, and in elementary occupations also often work shifts. Data on the share of shift work in major group occupations thus correspond to data for respective economic activities sections.

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### Shares of persons working shifts in the total number of employees by major group of the CZ-ISCO in 2016



Source: CZSO, Labour Force Sample Survey

The total extent of shift work is significantly affected mainly by conditions in manufacturing, in which there are over two fifths of all employees in the national economy, which work shifts. The economic activities section is characteristic for a high share of males. Females employees by economic activity boast a high share of manufacturing and a high number of females working in trade and in human health and social works. In these two economic activities sections there are over 40% of females employees working shifts and thus the total level of shift work in employed females is close to the shift work level in males.

### Numbers and shares of males and females working shifts in the total number of employees aged 15–64 years by CZ-NACE economic activity section in 2016

Economic activities sections of CZ-NACE		Employees working shifts in main job in recent four weeks			
		Males		Females	
		Thousand persons	Percentage of the section employees	Thousand persons	Percentage of the section employees
<b>Total employees aged 15-64 years</b>		<b>674.3</b>	<b>30.1</b>	<b>533.6</b>	<b>27.7</b>
<b>CZ-NACE</b>	<b>Section</b>				
Of which					
Agriculture, forestry and fishing	A	10.9	14.4	8.3	26.4
Mining and quarrying	B	16.4	52.5	-	16.8

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Manufacturing	C	349.9	41.6	186.1	39.7
Electricity, gas, steam and air conditioning supply	D	14.2	38.8	.	5.3
Water supply; sewerage, waste management and remediation activities	E	6.9	17.2	.	3.7
Construction	F	12.0	6.0	0.8	2.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	36.9	19.2	108.7	40.6
Transportation and storage	H	76.4	38.4	29.8	35.8
Accommodation and food service activities	I	33.1	60.7	31.8	41.3
Information and communication	J	7.5	10.0	2.7	7.8
Financial and insurance activities	K	2.6	8.0	3.6	6.9
Real estate activities	L	.	10.3	.	5.5
Professional, scientific and technical activities	M	2.7	3.9	0.8	1.1
Administrative and support service activities	N	19.8	37.1	11.4	25.3
Public administration and defence; compulsory social security	O	51.1	31.9	5.7	3.7
Education	P	1.4	2.1	15.0	6.2
Human health and social work activities	Q	26.0	41.8	112.6	42.3
Arts, entertainment and recreation	R	4.8	17.6	8.6	22.4

Note:

. Means the data is not reliable enough.

Source: CZSO, Labour Force Sample Survey

A great portion of the working population does not work shifts and so does not know numerous troubles which the shift workers have to cope with. Complications occur in case of females, which have to harmonise the change in their work rhythm with providing for house work, especially in the case of mothers of little children.

### B. High Share of Shift Work in Males and Females of the Middle Productive Age

The highest share of shift workers can be found in the group of the youngest employees up to 25 years of age, in which the share passed the level of 40%. The absolute number of employees in this age group is, however, substantially lower than in older age groups because a great portion of the youth still participate in the education process while being economically inactive.

#### Numbers and shares of employees working shifts by age group in 2016

	Employees working shifts in the main job in recent four weeks					
	Total		Males		Females	
	Thousand persons	Percentage	Thousand persons	Percentage	Thousand persons	Percentage
<b>Total employees aged 15–64 years</b>	<b>1207.8</b>	<b>29.0</b>	<b>674.3</b>	<b>30.1</b>	<b>533.6</b>	<b>27.7</b>
Employees by age group (years)						
15–19	9.5	41.0	5.9	42.4	3.6	38.9

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20–24	101.8	41.1	59.8	40.8	42.0	41.6
25–29	151.1	32.6	95.1	35.4	56.0	28.6
30–34	138.3	27.4	84.5	28.4	53.8	26.0
35–39	166.9	27.2	94.4	28.3	72.6	25.8
40–44	189.9	28.8	103.2	30.8	86.7	26.8
45–49	152.8	29.1	73.3	28.5	79.5	29.7
50–54	135.4	27.6	67.6	28.4	67.8	26.9
55–59	116.2	27.3	59.0	27.9	57.2	26.7
60–64	45.9	21.4	31.5	22.8	14.4	19.0

*Note:*

*The share of employees working shifts deeply plummets after the employees have reached the age of 65 years. In the group of the aged 65+ years there were 10.3 thousand persons working shifts and the share of shift work was significantly lower than in groups of younger age, being concrete it was 14.0%. After 25 years of age the share of shift work declines in an important way in females in relation to their natality and subsequent maternity and paternity leaves.*

Source: CZSO, Labour Force Sample Survey

Almost one third of all employees aged 25–29 years were working shifts. In the next age group of the aged 30–34 years the share of shift workers was 27.4% in the last year. The ten-year group of the aged 25–34 years is dominated by absolute number as well as the share of males working shifts. It is clearly a result of the fact a great portion of females goes for maternity and paternity leaves and when joining jobs afterwards they seek such jobs, which would enable them to take care of children.

Conditions change at the age of 35 years when the number and share of females working shifts is nearing the level of the same indices for males. In the age group of the aged 45–54 years the number of females working shifts is even absolutely higher than that of males. In the group of the aged 55+ years the still different limit for retirement shows its effect.

### **C. There Are over 30% of All Employees Working Shifts in Eight Regions of the Czech Republic**

The extent of shift work is, first of all, determined by characteristics of respondents' employment and type of economic activities the workplace belongs to. This is immediately reflected in differences in the shares of employees working shifts in the total number of employees in respective regions of the Czech Republic. In Prague the share of resident employees working shifts of 20.7% is substantially lower than in any other region, both in males and in females. The Jihomoravský Region makes an exemption the share of shift work there is also very low from the regional point of view. This follows from the fact that economic activities (CZ-NACE) and occupations (CZ-ISCO) in the City of Brno are comparable to conditions in the Capital City of Prague. In the Plzeňský Region, Moravskoslezský Region, Pardubický Region, and Karlovarský Region there is almost one third of all employees working shifts. The highest share of shift work has been over a long term in the Ústecký Region, in which the share has been almost as twice as high as that in the Capital City of Prague.

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### Shares of employees working shifts by region in the Czech Republic in 2016

Percentage

Territory	Shares of employees working shifts in the main job in recent four weeks		
	Total	Males	Females
<b>Czech Republic, total</b>	<b>29.0</b>	<b>30.1</b>	<b>27.7</b>
Hl. M. Praha Region	20.7	23.2	18.1
Středočeský Region	31.0	33.0	28.7
Jihočeský Region	28.0	27.6	28.6
Plzeňský Region	32.2	31.5	33.1
Karlovarský Region	31.5	34.9	27.6
Ústecký Region	39.1	40.8	37.1
Liberecký Region	30.2	33.3	26.6
Královéhradecký Region	30.9	34.0	27.5
Pardubický Region	31.7	33.2	29.8
Vysočina Region	29.6	25.8	34.4
Jihomoravský Region	21.7	20.0	23.7
Olomoucký Region	28.8	28.5	29.1
Zlínský Region	28.7	28.8	28.6
Moravskoslezský Region	32.2	35.8	27.8

Source: CZSO, Labour Force Sample Survey

#### D. Share of Employees Working Shifts in the Czech Republic Is One of the Highest in the European Union

The extent of shift work very differs in the Member States of the European Union, similarly as numerous other aspects of employment. In 2016 the share of persons working in this work regime in the EU28 reached 18.8% of all employees. The share of females working shifts is a bit lower than that of males in the EU28, 17.4% compared to 19.8%, respectively. However, differences are great in both sexes from state to state.

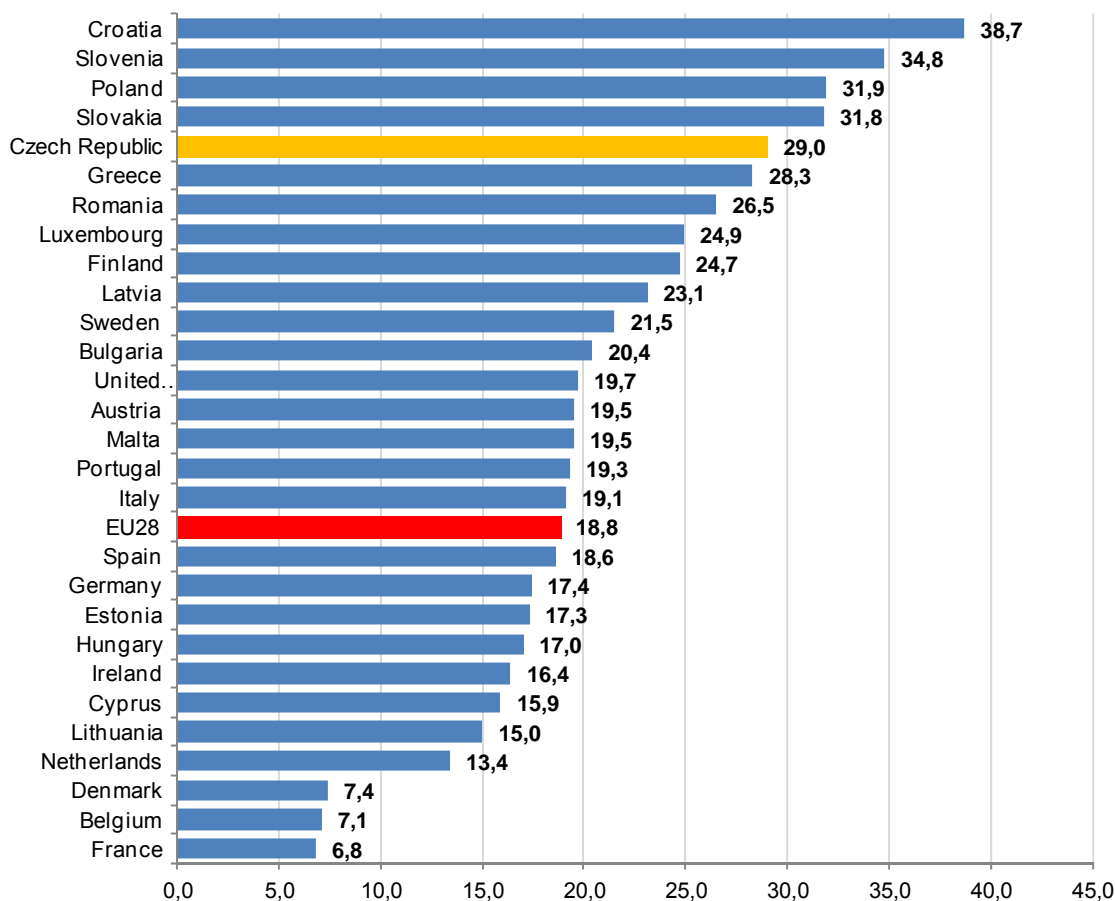
The highest share of employees working shifts featured Croatia, followed by Slovenia, Poland, and Slovakia. The share of shift work in the Czech Republic reached the fifth highest value in all Member States of the European Union. In majority of the Member States, in 16 of them, the share of shift workers was below 20% of all employees. The difference in application of shift work is confirmed by the fact the countries as Croatia or Slovenia has five times higher share of shift workers than France. Shift work is also of infrequent application in Belgium and Denmark.

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**Shares of persons working shifts in the total number of employees in the EU28 countries in 2016**



Source: Eurostat, Labour Force Survey

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Shift work is in abundant use in the Czech Republic. Yet it brings a high demand for harmonisation of the work regime with the personal life of respondents. For numerous employees shift work is not limited solely to working days, yet in many cases respondents also work on day offs, on Saturdays and/or Sundays. A number of persons of middle age also provide for care for the generation of their parents.

What is also necessary to take into account is the amount of wages and salaries of employees, namely females. Average wages in economic activities with a higher share of shift work are lower compared to economic activities having the highest level of earnings in which, on the contrary, the share of persons working shifts is very low. In economic activities with a high share of shift work the absolute difference in average wages between those of males and females is one of the highest.

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### Gross monthly wages of employees by economic activity and by sex

Economic activity according to CZ-NACE		CZ-NACE code	Average wages (CZK)		
			Total	Males	Females
<b>A-S</b>	<b>Total</b>	<b>01-96</b>	<b>29061</b>	<b>32134</b>	<b>25283</b>
A	Agriculture, forestry and fishing	01-03	23609	25061	20684
B	Mining and quarrying	05-09	33460	34132	28731
C	Manufacturing	10-33	29382	32351	23765
D	Electricity, gas, steam and air conditioning supply	35	42675	44300	37279
E	Water supply; sewerage, waste management and remediation activities	36-39	26878	27353	25257
<b>B-E</b>	<b>Industry, total</b>	<b>05-39</b>	<b>29695</b>	<b>32496</b>	<b>24083</b>
F	Construction	41-43	26199	26800	22985
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	45-47	26889	31322	22947
H	Transportation and storage	49-53	26963	27481	25605
I	Accommodation and food service activities	55-56	16453	17038	15968
J	Information and communication	58-63	51525	57063	38010
K	Financial and insurance activities	64-66	52158	68523	41247
L	Real estate activities	68	24834	25708	23950
M	Professional, scientific and technical activities	69-75	35065	39655	29481
N	Administrative and support service activities	77-82	19738	20504	18777
O	Public administration and defence; compulsory social security	84	31765	33831	29715
P	Education	85	28207	34794	26219
Q	Human health and social work activities	86-88	29098	38076	26935
R	Arts, entertainment and recreation	90-93	24229	26123	22510
S	Other service activities	94-96	22765	27705	19208

Source: CZSO, published in *Employees' Wages Structure in 2016 (Struktura mezd zaměstnanců v roce 2016, Code 110026-17, in Czech only)*

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