

ANALYSIS

4 August 2014

Commuting from the Středočeský Region Has Shown an Important Effect on Total Employment in Prague

Intensity of inter-regional commuting to work is very different. It is high especially in between Prague and a large area of the Středočeský Region. In other regions of the Czech Republic this type of movement to work affects employment in regions, in which people commute into and out of them, at substantially lower level.

It is clear from results of the Labour Force Sample Survey (LFSS), that employment trends vary in respective regions of the Czech Republic. These differences are, first of all, a result of the number and structure of jobs and the following options to apply professional knowledge and skills. Movement for work under the conditions of the Czech Republic is an important factor responding to the number of jobs.

Data on regional employment relate to persons making their usual residence in the respective region irrespectively they actually work on the region territory or not. The survey, however, enables to obtain a closer look on the commuting across borders of the respondent home region (NUTS3). The LFSS does not recognise frequency of commuting yet in most cases it is a daily movement even though shares of weekly, monthly, or irregular commuting will be higher than in the cases of intra-regional and intra-district commuting, respectively.

A. In 2013 Almost Three Hundred Persons Commuted out of Their Home Region for Work

In 2013 298 thousand persons, i.e. 6% of all working persons having their residence on the Czech Republic territory commuted across their home region borders for work to other regions. Frequency of commuting into and out of a region by region is very different. Prague, which 168 thousand persons were commuting into from other regions, i.e. over 56% of all persons commuting inter-regionally in the last year, occupies an extraordinary position. Every fifth working person in Prague lives outside the Capital City. The second most frequent destination is the Středočeský Region, which 43 thousand persons (over 14% of persons commuting inter-regionally) were commuting into for work. Numbers of inter-regional commuters into other regions of the Czech Republic are substantially lower. There were 16 thousand persons commuting to workplaces in the Jihomoravský Region, in other regions the numbers were from 2 thousand working persons to the Karlovarský Region up to less than 10 thousand persons to the Královéhradecký Region (here it is necessary to keep in mind that absolute values of the sample survey results below 3 thousand are of lower reliability).

Methodological Note: The number of persons commuting out for work is increased by cases of persons working abroad. The survey in households, however, captures these persons solely in part because in numerous cases it is even impossible to get in contact with them. It is clear from available data that commuting abroad for work is more important in the Karlovarský Region, Plzeňský Region, Jihočeský Region, and the Jihomoravský Region where these persons are mostly so-called "pendulumers" (commuters abroad) who commute to work daily or in a shorter cycle. In most cases these are working

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persons who found jobs in neighbouring countries of Germany and Austria, respectively. Because the sample survey is carried out only in private households and its subject matter is not persons in accommodation establishments, further categories of working persons, first of all foreign nationals, are captured just partly. The procedure selected, however, trustfully documents the inter-regional movements of respondents, who live in private households and are the Czech Republic citizens in a vast majority.

Number of persons commuting out of and into respective regions of the Czech Republic in 2013

Region	Thousand		
	Number of persons commuting out of	Number of persons commuting into	Difference in the number of commuting persons
Hl. m. Praha	25.3	167.9	142.6
Středočeský	131.7	42.5	-89.1
Jihočeský	8.1	6.0	-2.0
Plzeňský	8.0	5.4	-2.6
Karlovarský	5.3	2.0	-3.4
Ústecký	13.3	4.2	-9.0
Liberecký	13.2	4.7	-8.5
Královéhradecký	17.2	9.8	-7.4
Pardubický	14.3	9.4	-5.0
Vysočina	13.0	6.5	-6.4
Jihomoravský	16.5	16.2	-0.2
Olomoucký	10.6	8.1	-2.5
Zlínský	11.8	9.0	-2.8
Moravskoslezský	9.3	5.8	-3.5

Source: CZSO - LFSS

Data on inter-regional commuting into another region for work were published also for Q3 2009. The survey methodology was identical and at a lower seasonal dependence of this type commuting results can be compared well. Compared to 2009, in 2013 the positive difference in commuting into Prague and the negative difference in commuting into the Středočeský Region increased significantly; in other regions changes are small while the levels are lower anyway.

Prague and the Středočeský Region showed by far the strongest relation. In 2013 there were 127 thousand working persons commuting into Prague from the Středočeský region. This is by almost 30 thousand persons more compared to those in 2009. In the opposite direction, from Prague to the Středočeský Region there were 21 thousand persons commuting and their number also increased by 6 thousand persons compared to that in 2009. Commuting from the Ústecký Region into Prague and from the Liberecký Region into the Středočeský Region, mutual commuting between the Královéhradecký Region and the Pardubický Region, and commuting from the Vysočina Region to the Jihomoravský Region were among the more significant in the last year. In all the aforementioned cases the numbers of commuters fell within the interval from 5 to 6 thousand persons.

All the regions, except for the Hl. m. Praha Region, have shown a negative difference, although minimum in certain cases, of the inter-regional commuting. Taking it as a whole males commute

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more frequently than females (the ratio is two to one). Compared to situation in 2009 a high increase in the number of females commuting from the Středočeský Region into the Capital City can be observed. This way the positive difference of female commuters to Prague has grown by 12 thousand persons over four years and neared to the limit of 60 thousand persons in 2013. The development of the negative difference in commuting into the Středočeský Region corresponds to this where the negative difference of the male and female commuting into the region are virtually identical (almost 45 thousand persons each). This development was, inter alia, affected by the fact it is mostly younger people with small children or those setting families in a new residence, respectively, who move into the Středočeský Region from Prague and then mothers return back to their former jobs after their parental leaves have been terminated.

Differences in the numbers of males and females inter-regionally commuting for work in 2013 (excludes commuting abroad for work)

Region	Thousand		
	Difference in the number of persons commuting into the region		
	Total	Males	Females
Hl. m. Praha	142.6	83.3	59.3
Středočeský	-89.1	-44.7	-44.5
Jihočeský	-2.0	-1.1	-0.9
Plzeňský	-2.6	-1.2	-1.4
Karlovarský	-3.4	-2.6	-0.8
Ústecký	-9.0	-7.2	-1.8
Liberecký	-8.5	-6.8	-1.7
Královéhradecký	-7.4	-5.0	-2.4
Pardubický	-5.0	-3.7	-1.3
Vysočina	-6.4	-4.1	-2.3
Jihomoravský	-0.2	0.9	-1.1
Olomoucký	-2.5	-1.8	-0.8
Zlínský	-0.4	-2.5	2.1
Moravskoslezský	-3.5	-2.0	-1.5

Source: CZSO - LFSS

B. Commuters to Other Region for Work Are Often of Younger Productive Age and Have Higher Educational Attainment

The population of commuters across borders of their usual residence region for work demonstrates certain different features from the population of all people having one or main job in the Czech Republic. Firstly, commuters out into other region are substantially younger. While the share of persons up to 34 years of age let in total employment is less than thirty per cent, in the population of commuters out of their home region they accounted for 37%. It is needless to say that the share of the young decreased compared to that in 2009, which relates to shifts in the age structure of the population and long-term migration movements.

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It is mostly persons with secondary education, having A-level examinations or apprenticeship certificates (ISCED 3, 4), who commute across their home region borders. Their share in the number of persons commuting out of a region reached 62%, while persons having this educational attainment contributed to the total number of persons with one or main job by almost three quarters. The difference is mirrored in the share of higher education graduates (ISCED 5, 6). While the share of working persons with this educational attainment in the whole national economy reached 22%, in the population of commuters across their home region borders it was over one third of respondents.

Comparison of population of commuters across their home region borders for work to the structure of all working persons in the national economy in 2013

Indicator	Percentage	
	Persons commuting across their home region borders for work	The total number of working persons having residence in the Czech Republic
Total	100.0	100.0
Age group		
Up to 34 years	37.2	29.0
35-59 years	59.2	64.7
60+ years	3.7	6.3
Educational attainment		
ISCED 0-2	3.0	4.2
ISCED 3-4	62.3	73.5
ISCED 5-6	34.7	22.3

Source: CZSO - LFSS

The commuters out of the region are, first of all, those working in jobs requiring a higher educational attainment. They come from groups of managers, professionals, and technicians and associate professionals. It holds, to a lesser extent, also to clerical support workers. Two thirds of all inter-regional commuters worked at these jobs, i.e. by 15 percentage points higher share than that in the whole population of working persons in the Czech Republic. On the contrary, any other main group of the CZ-ISCO as service and sales workers, craft and related trades workers, plant and machine operators, and assemblers, and elementary occupations demonstrated lower shares in the inter-regional commuters.

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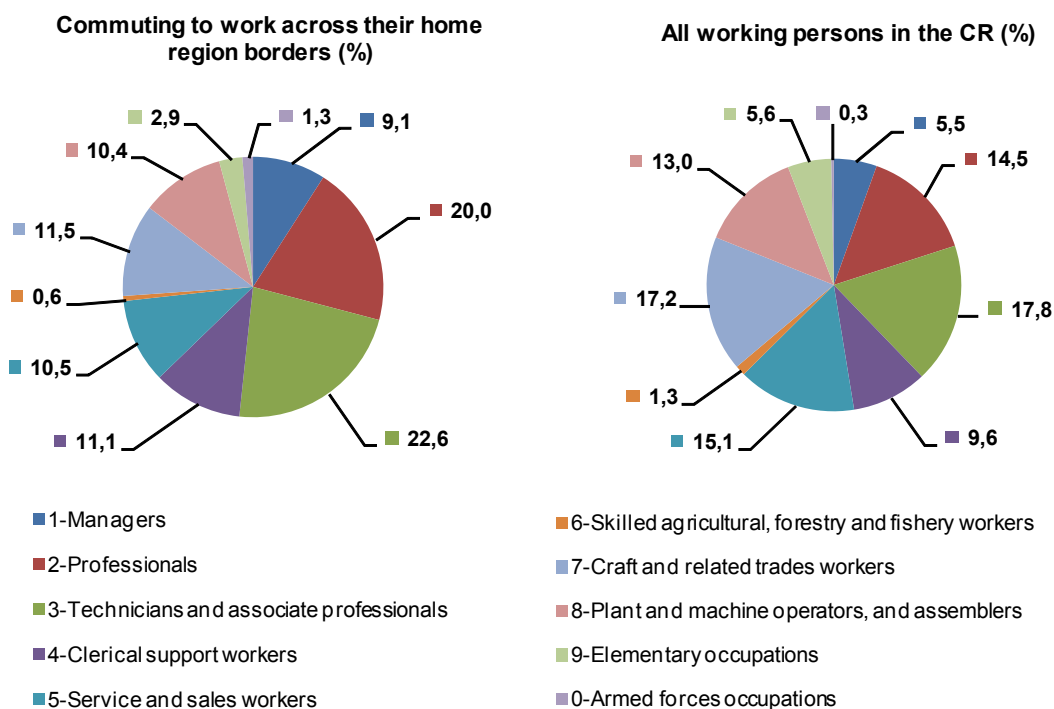
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Structure of commuters to other region for work and structure of all working persons in the CR by major group of the CZ-ISCO



Source: CZSO-LFSS

Working persons commuting across their home region borders are relatively younger and have a higher educational attainment and are mostly employees, which is also an interesting fact. While employees share in total employment in 2013 was 82%, then their share in the population of the inter-regional commuters for work attained over 90%.

C. There Is a Strong Tie in between Prague and the Středočeský Region

A half of all inter-regional commuters for work travels just in between the Středočeský Region and Prague. The mutual tie has been even reinforced because intensity of movement for work in between these two regions has been permanently growing. It is a result of interactions of demographic and economic factors and changes to the settlement structure of the regions. **Movement for work in between the two regions is substantially affected by the fact that the Středočeský Region population has been growing mostly as a result of migration of economically active population from the Capital City.** Migration from Prague into the Středočeský Region is the biggest migration flow in among all regions of the Czech Republic. Many Praguers find their residence in the Středočeský Region and then subsequently increase the number of commuters into Prague for work.

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These are, first of all, younger working persons of productive age and, moreover, the number of moving children has also been increasing. These facts, along with the subsequent family reproduction, has been leading both to growing commuting to educational facilities in Prague and to immersing issues with capacities of preschool and school facilities in municipalities of the people residence.

The highest number of Praguers has moved into adjacent districts of Praha-východ and Praha-západ. A great number of them has also found permanent residence in districts of Mělník, Kladno, and Beroun. The table below gives numbers of persons, who changed their Prague residence for a permanent residence in districts of the Středočeský Region, and vice versa, in the period from 2009 to 2013.

Migration movements (changes in permanent residence) in between Prague and districts of the Středočeský Region within the period from 2009 to 2013

Region / District	Number of persons		
	Persons moving into from Prague	Persons moving out into Prague	Difference of migration in between the Středočeský Region and Prague
Středočeský Region:	77214	36275	40939
Benešov	3733	1776	1957
Beroun	4667	1657	3010
Kladno	5364	3098	2266
Kolín	3384	1744	1640
Kutná Hora	1345	1007	338
Mělník	5593	3780	1813
Mladá Boleslav	2067	2176	-109
Nymburk	4151	2463	1688
Praha-východ	22949	8694	14255
Praha-západ	19478	7046	12432
Příbram	3131	1727	1404
Rakovník	1352	1107	245

Source: CZSO - demographic statistics

Note: Data of the demographic statistics concerns change of the permanent residence. The sample survey, however, works with so-called usual residence, when respective members of the household take as their basic household the place where they live, sleep, and care for maintenance of the dwelling. In numerous cases the residence de facto and the residence de jure are different.

Praguers therefore have moved into the Středočeský Region, which, on the other side, leads to a great increase in the number of respondents commuting into the Capital City for work from a great area of the Středočeský Region. Because of the sample size the survey may not publish data on commuting at the level of districts. **Although, it is clear that over one half of commuters into Prague have residence on territories of the districts of Praha-východ, Praha-západ, Kladno, and Mělník.**

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It follows from the survey results that this type of movement for work is substantially used by higher education graduates of younger productive age, who work mostly in the tertiary sector. This holds especially for the group of working persons who commute into Prague from municipalities of the Středočeský Region. A vast majority of these commuters (85%) works in services, because jobs in the secondary sector are scarce in the Capital City. On the contrary, in the group of inter-regional commuters in other directions the share of manufacturing and construction was substantially higher - almost 40%. The specific feature of the group of commuters into the Capital City from municipalities of the Středočeský Region is confirmed also by the fact that three quarters of them are classified as managers, professionals, technicians and associate professionals, or as clerical support workers. Almost 38% of these respondents have completed higher education. Differences compared to the group of working persons commuting in other directions of inter-regional commuting can be seen in table below. The difference from the structure of all working persons in the Czech Republic can be obtained by comparing data from table on page 4 and graph on page 5.

Comparison of structure of respondents commuting into Prague from the Středočeský Region for work and structure of the population of other working persons commuting out of their home regions in 2013

Indicator	Percentage	
	Commuting into Prague from the Středočeský Region for work	Other working persons commuting across their home region borders for work
Total	100.0	100.0
Educational attainment		
ISCED 0-2	1.4	4.3
ISCED 3-4	61.0	63.0
ISCED 5-6	37.6	32.7
Jobs by major group of the CZ-ISCO:		
Managers	10.2	8.0
Professionals	23.0	18.0
Technicians and associate professionals	25.2	20.6
Clerical support workers	15.0	8.2
Service and sales workers	12.1	9.1
Craft and related trades workers	6.4	15.4
Plant and machine operators, and assemblers	4.8	14.8
Sector		
Primary	A	1.1
Secondary	B to F	39.8
Tertiary	G to U	52.8

Source: CZSO - LFSS

D. Commuting into Large Cities Has Been Growing

Importance of inter-regional commuting for the total employment of respective regions can be documented by the value of the **index of the number of working persons in the region to**

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the number of persons having one or main job and residence on the territory of the respective region. In order to eliminate effects of potential fluctuations caused by the sample survey methodology the index was calculated as an average for the years from 2011 to 2013. In this period the index for Prague was 119.7, its value in any of other regions was below 100.

Inter-regional commuting represents solely a smaller portion of commuters out of their home municipality for work. It does not capture frequent cases of inter-district commuters within a region and intra-district commuters. The aforementioned index can be employed again in order to get at least approximate evaluation of the commuting effect on employment in selected large districts. It essentially reflects the difference in numbers of commuters into and out of the districts within the respective region, including the difference in the numbers of commuters into from districts from other region.

The index value for other large cities in the Czech Republic is easily comparable to the index value for Prague. The highest value of the index can be found in the City of Brno (126.1) and then in the Ostrava-město District (121.0), which also exceeds the value for the Capital City. Yet in the very City of Ostrava its value may be even higher due cases of commuters for work from the remaining municipalities of the district. The index of the Plzeň-město District (115.4) was lower than that of Prague. It is clear from more detailed data, however, that the number of working persons on the territory of the West Bohemia metropolis has been permanently growing in the three recent years and it can be expected that it will reach the level of Prague in a short time. Resources of commuters to the City of Brno are first of all neighbouring districts as Brno-venkov, Blansko, Vyškov; concerning the City of Ostrava the highest numbers of commuters come from districts of Opava, Frýdek Místek, and Karviná. The highest number of commuters to the City of Plzeň come from districts of Plzeň-jih and Plzeň-sever.

Index of the number of working persons and the number of persons having one or main job and residence in regions and selected cities in the period from 2011 to 2013

Region / City	Number of working persons (thousand)	Number of persons with one or main job and residence (thousand)	Index (* 100)
Hl. m. Praha	777.1	644.1	119.7
Středočeský	531.3	620.1	84.8
Jihočeský	291.9	296.9	98.8
Plzeňský	269.8	277.8	96.2
Karlovarský	135.6	140.4	96.1
Ústecký	349.4	360.3	96.1
Liberecký	187.9	195.9	95.9
Královéhradecký	247.3	252.6	98.0
Pardubický	232.8	238.8	96.6
Vysočina	226.2	233.9	95.7
Jihomoravský	540.6	542.6	97.2
Olomoucký	277.7	282.9	99.8
Zlínský	265.7	271.0	96.2
Moravskoslezský	536.2	542.6	98.6

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Selected cities				
Plzeň-City	107.1	91.3	115.4	
Brno-City	240.3	184.2	126.1	
Ostrava-City	182.8	146.3	121.0	

Source: CZSO - LFSS

According to the sample survey results commuting to work is an important source of employment in the largest cities of the Czech Republic. More detailed data on directions and intensities of commuting out for work or to educational facilities at the level of cities and municipalities can be found in results of the 2011 Population and Housing Census, which were published on the web pages of the Czech Statistical Office.

Authors

Marta Petráňová, Bohuslav Mejstřík

Unit for Labour Forces, Migration and Equal Opportunities

Czech Statistical Office

Tel.: +420 274 054 357; +420 274 052 203

E-mail: marta.petranova@czso.cz; bohuslav.mejstrik@czso.cz