



## czech workforce

### General Population Trends

#### Age

The percentage of people 65 or over has increased by 4.3% since 2007, and almost 19% of Czechs are now in this category. That is one of the highest percentages in the benchmark (see figures in the report). Median age in the country is 41.9 and 4% of population is aged 80 or over.

The percentage of working age Czechs has dropped from 71% of the population to 66%. That decline has been particularly dramatic since 2011: the country has almost 385,400 fewer people aged 15-64 today. This is the primary source of today's workforce shortage. Generally, there are almost 92,000 fewer people living in the country compared with 2011.

The good news is that the Czech Republic leads benchmarked countries in the growth of the population under 15, and that this trend has been increasing.

#### Economically Active Population

The decline in working age population has been mitigated by a rise in the active level of the population, particularly among people aged 55-64 (from 637,000 in 2005 to 846,000 in 2017).

The Czech Republic leads the benchmarked countries in the percentage of economically active males of working age (almost 83%), and ranks second after Austria for women (with almost 69% share).

Active males aged 55-64 increased by 11% since 2007. Active females aged 55-64 jumped up by over 21% in the same period.

#### Education of Economically Active Population

The Czech workforce depends more heavily on people with a secondary education than the average country in the EU, as well as the countries— except Slovakia— in the benchmark. 71% of the Czech workforce has secondary education, compared with an EU average of 48%, Germany's 58%, and Austria's 53%.

The country has significantly lower levels of primary-educated people in the workforce (5%). That may mean that people with secondary education are working in jobs requiring only primary education. If so, that would be hindering wage development.

The country also has a lower level (24%) of tertiary-educated people in the workforce than the EU average (34%), Germany (29%), or Austria (34%). 22% of working men (8% below EU average) and 27% of working women (11% below EU average) have attained tertiary education.

Policymakers interested in reducing the wage gap may look at the education ratios as the potentially primary cause.

#### Internal Migration

Czechs are moving to cities, and particularly to Prague. Prague and its surrounding Central Bohemia region have increased its population by over 126,000 people since 2011; seven regions lost population since 2011. Southern Moravia, with Brno as a hub, increased population by 16,900 and Plzeňský region increased by 9,080 in 2011-17. Moravia-Silesia has lost 24,730 since 2011.



## czech workforce

### Population Trends by Age Groups in the Past Decade

The Czech Republic has increased its population by almost 380,000 since 2005, an increase that has slowed to 92,000 in 2011-17 and 25,000 in the 2016-17 period. The country's population increase contradicts the overall trend in the region, where all benchmark countries, except Austria and Slovakia, have experienced declines; with Romania and Bulgaria reporting more severe declines.

Population, Trends 1000s	Change 2011-2017			Change 2016-2017		
	Total	15-64	Under 15	Total	15-64	Under 15
Austria	397 701	220 449	29 334	72 394	34 951	16 893
Bulgaria	-267 572	-405 125	25 888	-51 925	-65 068	2 813
Croatia	-135 644	-137 788	-51 462	-36 456	-37 811	-8 022
<b>Czech Republic</b>	<b>92 089</b>	<b>-385 374</b>	<b>125 510</b>	<b>24 977</b>	<b>-55 092</b>	<b>23 559</b>
Hungary	-188 161	-310 907	-34 345	-32 924	-62 988	-1 583
Poland	-89 754	-1 119 637	-140 495	5 755	-241 887	23 468
Romania	-554 709	-653 482	-140 495	-115 964	-167 204	-7 969
Slovakia	42 897	-101 986	8 672	9 091	-29 817	8 185

Czech working age population (15-64), however, has declined since 2005, and that decline accelerated in the 2011-2017 period. This negative trend reflects what is happening in every other country in the region, except Austria.

The Czech Republic has the most positive trend in the region for population under 15 years of age, and that trend has held steady in the 2005-2017 and 2011-2017 period.

Population, Ratio %, rounded up	Less than 15   15-64   65+			
	2005	2011	2016	2017
Austria	16   68   16	15   68   18	14   67   18	14   67   19
Bulgaria	14   69   17	13   68   18	14   66   20	14   65   21
Croatia	16   67   17	15   67   18	15   66   19	15   66   19
<b>Czech Republic</b>	<b>15   71   14</b>	<b>15   70   16</b>	<b>15   66   19</b>	<b>15   66   19</b>
Hungary	16   69   16	15   69   17	14   67   18	14   67   19
Poland	17   70   13	15   71   14	15   69   16	15   68   17
Romania	17   68   14	16   68   16	16   67   17	16   67   17
Slovakia	17   71   12	15   72   13	15   70   14	16   70   15

The Czech Republic had a favorable ratio of working age population to other ages in 2005, but that ratio had deteriorated to regional norms by 2016. The 5% decline was the greatest shift in working age population among those benchmarked.

Czech Republic							
Proportion of population aged	2005	2007	2011	2015	2016	2017	
15-19 years	6,4	6,3	5,5	4,4	4,3	4,3	
15-24 years	13,3	12,9	12,0	10,3	9,9	9,6	
20-24 years	6,9	6,7	6,5	5,9	5,6	5,2	
25-29 years	8,7	8,0	6,9	6,6	6,5	6,5	
30-34 years	8,0	8,8	8,4	7,1	7,0	6,9	
35-39 years	6,7	6,9	8,4	8,7	8,4	8,0	
40-44 years	6,6	6,8	6,7	8,0	8,3	8,6	
45-49 years	6,9	6,4	6,6	6,6	6,6	6,7	
50-54 years	7,7	7,5	6,4	6,3	6,5	6,6	
55-59 years	7,5	7,6	7,2	6,5	6,2	6,0	
60-64 years	5,7	6,3	7,1	6,9	6,8	6,7	

### Economically Active Population – Male and Female, Trends in the Past Decade

Despite the decrease in the Czech population between the ages of 15-64 since 2005, the number of economically active men and women in that age range has increased over that period. The statistics indicate that it might be the result of more individuals working aged 55-64.

Economically active population rates 2017									2016		2017	
Economically active population rates 2016									% 55-64 of 15-64		% 55-64 of 15-64	
1000s	Male 15-64	Male 55-64	Female 15-64	Female 55-64	Male 15-64	Male 55-64	Female 15-64	Female 55-64	Male	Female	Male	Female
Austria	2340	327	2072	239	2350	351	2083	257	14%	12%	15%	12%
Bulgaria	1710	297	1490	282	1751	312	1526	293	17%	19%	18%	19%
Croatia	968	147	838	106	973	153	835	109	15%	13%	16%	13%
<b>Czech Republic</b>	2906	470	2321	357	2912	476	2336	370	16%	15%	16%	16%
Hungary	2465	386	2079	318	2485	391	2080	316	16%	15%	16%	15%
Poland	9315	1479	7646	1097	9304	1505	7615	1115	16%	14%	16%	15%
Romania	5006	692	3689	482	5034	706	3778	487	14%	13%	14%	13%
Slovakia	1499	211	1239	186	1489	210	1237	203	14%	15%	14%	16%



## czech workforce

Economically active, % of total	Male 15-64			Male 55-64			Female 15-64			Female 55-64		
	2005	2016	2017	2005	2016	2017	2005	2016	2017	2005	2016	2017
Austria	78	80,7	81	40,4	61,2	63	64,9	71,7	71,8	22,5	42,7	44,5
Bulgaria	67	72,7	75,4	49,9	63,4	66,8	57,3	64,6	67,1	27,8	54,6	57,3
Croatia	70	70,3	71,5	46,6	50,7	52,8	56,8	60,9	61,4	24,5	34,2	35
<b>Czech Republic</b>	<b>78,4</b>	<b>82,2</b>	<b>82,9</b>	<b>62,1</b>	<b>70,9</b>	<b>73,2</b>	<b>62,4</b>	<b>67,6</b>	<b>68,7</b>	<b>32,9</b>	<b>51,2</b>	<b>54,5</b>
Hungary	67,9	76,9	78,2	42,3	62,4	64,5	55,1	63,5	64,2	27,7	43,5	44,3
Poland	70,8	75,7	76,6	40,9	58,6	60,8	58,1	62	62,6	21,5	39	40,5
Romania	69,4	74,8	76,2	48,4	55,1	57,4	55,3	56,2	58,2	33,5	34,4	35,7
Slovakia	76,5	78,3	78,2	55,1	60,1	60	61,5	65,4	65,9	18,1	48,2	53

Men and women between 55-64 were the reason the Czech economically active population grew in the past decade. The number of economically men aged 55-64 grew by 73,000 in the period 2005-2017 (73.2% of all men that age). Active women of the same age category grew by 136,000 (54.5% of all women that age). Both active males and females between the ages of 15-54 declined.

The country now has the highest workforce participation rates among the benchmarked for working age (15-64) and 55-64 year-old men. The participation rate for 55-64 year old men is 7% higher than the next highest in the group. The country has the second highest rate for 15-64 year-old women and 55-64 year-old women.

Change in economically active population 2016-2017									2005-2017		2016-2017	
Change in economically active population 2005-2017									Change in 15-54		Change in 15-54	
1000s	Male 15-64	Male 55-64	Female 15-64	Female 55-64	Male 15-64	Male 55-64	Female 15-64	Female 55-64	Male	Female	Male	Female
Austria	210	166	288	148	10	24	11	18	44	140	-14	-7
Bulgaria	0	89	-4	148	41	15	36	11	-89	-152	26	25
Croatia	24	38	44	38	5	6	-3	38	-14	6	-1	-41
<b>Czech Republic</b>	<b>55</b>	<b>73</b>	<b>74</b>	<b>136</b>	<b>6</b>	<b>6</b>	<b>15</b>	<b>13</b>	<b>-18</b>	<b>-62</b>	0	2
Hungary	225	163	160	135	20	5	1	-2	62	25	15	3
Poland	113	771	-67	673	-11	26	-31	18	-658	-740	-37	-49
Romania	-146	208	-398	93	28	14	89	5	-354	-491	14	84
Slovakia	37	77	53	151	-10	-1	-2	17	-40	-98	-9	-19

### Economically Active Workforce – Comparisons to EU average, Male and Female, Education Level

Active workforce describes the number of people economically active out of the entire population. The Czech Republic has high levels of active workforce compared to the European average. The high level of active workforce is similar to Austria and lower than Germany, but well ahead of its Central European competitors. Austria and Germany rely on high levels of active females, while the Czech Republic’s level of activity is driven by males.

Active Population To EU Avg, 2017			
plus/minus %	Total	Male	Female
Austria	3,3	2,5	4,0
Bulgaria	-1,9	-3,0	-0,9
<b>Czech Republic</b>	<b>2,7</b>	<b>4,2</b>	<b>1,0</b>
Germany	5,3	3,8	6,6
Hungary	-1,9	-0,3	-3,4
Poland	-4,0	-2,2	-5,7
Romania	-6,8	-3,2	-10,6
Slovakia	-1,4	-1,1	-1,9

Active Population To EU Avg, 2016			
plus/minus %	Total	Male	Female
Austria	2,7	1,3	4,0
Bulgaria	-3,6	-5,2	-2,3
<b>Czech Republic</b>	<b>2,7</b>	<b>4,1</b>	<b>0,9</b>
Germany	5,1	3,7	6,3
Hungary	-2,5	-1,1	-3,8
Poland	-3,7	-2,3	-5,0
Romania	-7,9	-4,7	-11,4
Slovakia	-0,7	0,1	-1,7



#### Policy Question:

Does the low number of primary educated people in the workforce represent higher educational levels than in other EU countries?

Do the high levels of secondary-educated or tertiary-educated workforce work in jobs requiring secondary education, or are they replacing primary-educated workforce in lower skilled jobs?

Why does the Czech Republic have a significantly lower proportion of tertiary-educated workforce?

Portion of active workforce, %	Male			Female		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
<b>EU Average</b>	11%	26%	16%	8%	21%	17%
<b>Austria</b>	7%	29%	<b>17%</b>	7%	24%	<b>16%</b>
<b>Bulgaria</b>	7%	34%	<b>12%</b>	5%	24%	18%
<b>Czech Republic</b>	2%	41%	12%	2%	<b>30%</b>	12%
<b>Germany</b>	<b>7%</b>	30%	16%	6%	<b>28%</b>	12%
<b>Hungary</b>	7%	36%	12%	6%	26%	<b>13%</b>
<b>Poland</b>	3%	37%	<b>15%</b>	2%	<b>23%</b>	<b>20%</b>
<b>Romania</b>	11%	<b>37%</b>	10%	<b>6%</b>	25%	11%
<b>Slovakia</b>	3%	<b>40%</b>	11%	3%	30%	<b>13%</b>

Red=decrease yoy, green=increase yoy

The country’s active population is driven by individuals with a secondary education, primarily males (41% of total active population). This preponderance of the workforce with secondary education is significantly higher than both Austria and Germany, as well as the EU average. Individuals with a primary education or less make up a significantly lower percentage of the workforce in the Czech Republic than the EU average. Individuals with a tertiary education comprise 9% less of the workforce in the Czech Republic than the EU average.



## czech workforce

### Internal Migration

Regional Comparison ratios (%) and total (1,000s)	Q1 2017 Em- ployed:La bor Force	Q4 2017 Em- ployed:La bor Force	Q1 Chan- ge since 2011	Q4 Chan- ge since 2011	Increase in Labor Force sin- ce 2011	Increase in Labor Force sin- ce 2011	Q1 Change in Population since 2011	Q4 Change in Population since 2011
Czech Republic	96%	<b>98%</b>	3%	<b>4%</b>	92,4	<b>133,8</b>	73,62	<b>104,61</b>
Prague	98%	<b>99%</b>	1%	<b>2%</b>	3,8	<b>19,2</b>	40,83	<b>52,85</b>
Central Bohemia	97%	<b>98%</b>	2%	<b>3%</b>	29,1	<b>43,1</b>	62,73	<b>73,47</b>
Southern Bohemia	97%	<b>98%</b>	3%	<b>4%</b>	-0,6	<b>1,5</b>	2,59	<b>4,06</b>
Plzeňský region	97%	<b>98%</b>	2%	<b>4%</b>	5,6	<b>6,5</b>	7,12	<b>9,08</b>
Karlovarský region	95%	<b>97%</b>	3%	<b>6%</b>	-2,1	<b>-0,6</b>	-6,95	<b>-7,46</b>
Ústecký region	95%	<b>97%</b>	5%	<b>7%</b>	-3,5	<b>-6,4</b>	-7,29	<b>-6,97</b>
Liberecký region	96%	<b>96%</b>	3%	<b>4%</b>	3,8	<b>0,4</b>	2,03	<b>2,70</b>
Královéhradecký region	96%	<b>98%</b>	3%	<b>5%</b>	3,7	<b>7,0</b>	-3,36	<b>-2,77</b>
Pardubický region	96%	<b>98%</b>	2%	<b>3%</b>	10,7	<b>9,5</b>	0,58	<b>1,93</b>
Vysočina region	97%	<b>98%</b>	3%	<b>5%</b>	-0,4	<b>3,2</b>	-3,41	<b>-3,02</b>
Southern Moravia	96%	<b>97%</b>	4%	<b>4%</b>	28,5	<b>25,1</b>	12,50	<b>16,90</b>
Olomoucký region	96%	<b>97%</b>	4%	<b>5%</b>	4,9	<b>11,7</b>	-5,36	<b>-5,46</b>
Zlínský region	96%	<b>98%</b>	4%	<b>6%</b>	-0,4	<b>2,1</b>	-6,00	<b>-5,97</b>
Moravia-Silesia	93%	<b>96%</b>	2%	<b>6%</b>	9,3	<b>11,8</b>	-22,38	<b>-24,73</b>

The country's population has been shifting toward urban areas, and dramatically toward the Prague and Central Bohemia regions. Since 2011, the population of the Prague and Central Bohemia region has grown by over 126,000 inhabitants. Other regions lost population, except the South Moravian region (home of Brno), as well as the Plzeňský region, South Bohemian, Liberecký and Pardubický regions.

Both Central Bohemia and Southern Moravia recorded large increases in their labor force while maintaining a high level of employment.