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# LONG-TERM POPULATION DEVELOPMENT OF THE SOUTH BOHEMIAN MUNICIPALITIES FROM 1869 TO 2021 IN THE PERSPECTIVE OF SELECTED FACTORS

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# Long-term population development of the South Bohemian municipalities from 1869 to 2021 in the perspective of selected factors

The article aims to capture and justify changes in the population development of larger South Bohemian municipalities from the beginning of the industrial era to the present. It evaluates the impact of three factors on the population development of municipalities – railways, territorial-administrative function and population size, but attention is also paid to other factors that shaped the population development of municipalities. The article uses census data from 1869 to 2021 for 104 municipalities with 2,000 or more inhabitants. In terms of the influence of the railway, the population increased the most in municipalities with railway junctions, especially until 1930. The higher territorial-administrative function of municipalities positively influenced their population growth throughout the whole monitored period. Municipalities with a larger number of inhabitants grew faster in population. But this did not apply to the last, post-socialist period, when the influence of other factors and processes was applied, mainly suburbanisation.

**Key words:** development of municipalities, railway influence, territorial-administrative function, South Bohemia

# INTRODUCTION

Research into the long-term population development of municipalities is one of the important tasks of human geography. This development was mainly influenced by locational and socio-economic factors linked to individual municipalities, or even entire districts and regions. Examining a wide spectrum of factors influencing the population development of municipalities in a certain territory is not a frequent topic in professional literature. In Germany, Reulecke (1977) dealt with this issue, in Poland Bairoch and Goertz (1986) and also Jażdżewska (2006). Throughout the territory of Czechia, the long-term population development of towns, rural municipalities and larger areas was influenced by a greater number of factors. The main influence was the introduction of railways into the municipality, the function of the municipality in the administration for the wider surrounding area, the population size of the municipality and the development of the natural and migratory currency of the population of the municipality.

The article aims to describe and justify the changes in the long-term population development of larger South Bohemian municipalities from the beginning of the industrial era to the present, mainly from the perspective of three factors – the railway factor, the territorial-administrative function factor and the population size factor. These are factors that were considered important determinants of population changes in the municipalities of developed countries in several studies – see, for example, Morrill (1963), Antrop (2004) and others. The influence of other factors

is then discussed in the discussion section of the article. The article is a historical-geographical study in a rather specific peripheral region of Czechia – in the South Bohemian Region. For this territory and in the long-term perspective, this issue has not yet been processed.

In line with other authors, we assume that (1) a good location on the railway, for example at the intersection of the main railway lines, led to an increase in the number of inhabitants in the municipality, especially during the Industrial Revolution (similarly Schram 1997, Bogart et al. 2019, Büchel and Kyburz 2020 and others). We also believe that (2) a higher territorial-administrative function, especially regional and district ones, can contribute to the population development of the municipality, as the municipality administration prioritizes the development of its municipality within the region or district (see Mitrică et al. 2014, Heider et al. 2018, Heider 2019 or Szymańska and Michalski 2019). Many European cities and towns have experienced population shrinkage in the last three decades. The reason was mainly suburbanisation process, more precisely suburban migration from the city to its immediate surroundings (see Martinez-Fernandez et al. 2012, Wiechmann and Wolff 2013 or Haase et al. 2021 and others). We assume that this (3) population decrease also occurred in the monitored South Bohemian towns around which suburbanisation is noticeable.

# MONITORED FACTORS OF POPULATION DEVELOPMENT OF MUNICIPALITIES IN LITERATURE

Schram (1997), Schwartz et al. (2011) and Koopmans et al. (2012) found the beneficial effects of railways on population and economic growth of municipalities in the last third of the 19th century, specifically in the Po Valley (Italy), in the industrial regions of France and United Kingdom, and in the Netherlands. According to Gregory and Henneberg (2010), in the last third of the 19th century, English and Welsh rural municipalities lying on the railway lost significantly less population than those rural municipalities not lying on the railway. According to Bogart et al. (2019), between 1850 and 1881, the rural population there without access to railways decreased by 5.14 million people, which was 20% of the population there at the time. In Switzerland in the second half of the 19th century, the population of municipalities on railways grew by 0.4 percentage points per year, while other municipalities lost inhabitants at the same rate (Büchel and Kyburz 2020). In the industrial areas of Germany, this growth was even higher during this period – 0.5 percentage points (Braun and Franke 2022).

Paper published by Auerhan (1934) is the only significant study evaluating the influence of the railway on the population development of towns and rural municipalities in Bohemia, specifically in the years 1869 – 1930. According to the author, municipalities on railways, especially those on main railways and railway junctions, had a much higher increase in population compared to municipalities without a railway. In Slovakia, Bašovský and Majbová (1977), and more recently Horňák (2004), dealt with this issue.

After World War II, road transport progressively began to predominate in passenger and freight transport. It is therefore difficult to determine to what extent the railway impacted population growth and the economic development of individual municipalities in this period. The strong development of suburbanisation around Western European cities and towns in the 1970s and 1980s was based mainly on

car transport. However, suburbanisation was also supported by railway lines with suburban passenger trains (Seidenglanz et al. 2014).

Fewer studies focus on the influence of the territorial-administrative function of municipalities on their population development. The loss or gain of a regional function, specifically the function of the centre of the Polish voivodeship, was reflected both in the economic and population development of Polish cities affected in this way (Szymańska and Michalski 2019). If small towns in Eastern Slovakia have retained their territorial-administrative function, their population decline in recent years has not been so great (Novotný et al. 2016). In South Bohemia, district towns doubled their population in the years 1910 – 1998, larger rural settlements with a municipal office stagnated in population, and very numerous small villages were affected by significant depopulation (Kubeš 2000).

For many decades, cities and larger towns of Central Europe grew in population faster than other municipalities due to the concentration of employment opportunities in industry and services and related housing development. However, in the last decades, many of them have been losing their residents. The cause is primarily suburbanization, i.e. the departure of urban residents to the surrounding suburban municipalities (there is much literature on this). In the case of previously highly industrialized cities and towns, the reason for the population decline may be their deindustrialization in recent decades (Runge et al. 2020, Buček et al. 2022 and others). In particular, young educated people leave villages and small towns in peripheries for settlement agglomerations in an attempt to find work corresponding to their education (Leetmaa et al. 2015 and Bartosiewicz et al. 2019).

# CASE STUDY AREA, DATA AND METHODOLOGY

South Bohemia in the regional (EU NUTS3) definition is the case study area of the article (Fig. 1). It has 10 thousand square kilometres and 652,000 inhabitants (in 2023). South Bohemia had and still has a peripheral position within Czechia (Nováček 2005). It also has a low density of population (65 inhabit./km²), belowaverage urbanization level (63%) and a dense network of mostly very small municipalities and villages. The regional city of České Budějovice (96,000 inhabitants in 2023) is the real centre of South Bohemia. Other larger towns – Tábor, Písek, Strakonice and Jindřichův Hradec have 20,000 – 34,000 inhabitants.

The evaluations in the article are based on population data from the censuses between 1869 – 2021 (CSO 2016 and 2023). Only municipalities with 2,000 or more inhabitants are monitored in the article (which reached or exceeded the threshold of 2,000 inhabitants in at least two censuses). These are 104 out of 624 municipalities in South Bohemia. In 2021, their share of the regional population was 72.7% and thus represent the representative majority group for monitoring the influence of the analysed development factors. They are marked in Fig. 1.

In assessing the influence of the railways, municipalities are divided into seven categories: with a station with 5 (R1), 4 (R2) or 3 (R3) railways heading to the municipality, (R4) with a station on the railway passing the municipality, (R5) with a station at the end of the railway, (R6) with a station 2-5 km away from the railway (measured from the centre of the settlement with the municipal office) and (R7) other municipalities. A similar approach was applied by Auerhan (1934). The periods 1869-1900 and 1900-1930 are taken into account, when the railway network was expanding and the railway had a great influence on the development of municipalities.

When assessing the impact of the territorial-administrative function, five categories of municipalities are distinguished: (A1) the centre of the region, (A2) the centre of only a large district, (A3) the centre of only a medium-sized district (formerly a political district, later a municipality with extended powers), (A4) the centre of only a small district (formerly a judicial district, later a municipality with a higher municipal office) and (A5) other municipalities. The periods 1869 – 1930, 1930 – 1950, 1950 – 1961, 1961 – 2001 and 2001 – 2021 are observed because they are related to reforms of the territorial-administrative organisation.

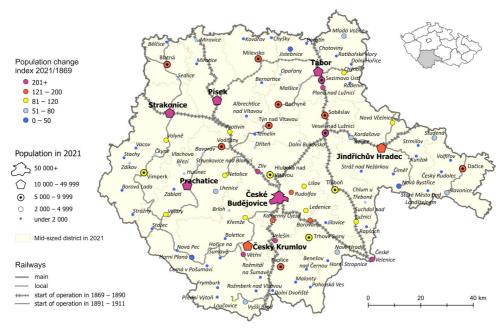


Fig. 1. Population change in municipalities, South Bohemia (1869 – 2021)

Source: Own processing based on data from censuses (CSO 2016 and 2023), technically modified by V. Blažek.

In order to assess the effect of the population size, the municipalities are divided into six categories: (P1) with more than 50,000 inhabitants, (P2) with 20,000 - 49,999 inhabitants, (P3) with 10,000 - 19,999 inhabitants, (P4) with 5,000 - 9,999 inhabitants, (P5) with 2,000 - 4,999 inhabitants and (P6) up to 1,999 inhabitants (a small part of municipalities that reached 2,000 inhabitants during some census). The periods considered are 1869 - 1930, 1930 - 1950, 1950 - 1991 and 1991 - 2021.

The subsequent evaluation is carried out by comparing the values of the average annual increase/decrease in the population in % and two indexes of population development – (CI) a simple index of population change and (RCI) a relative index of population change, which takes into account the population development of the monitored municipalities in comparison with the population development of the entire South Bohemian Region.

### THE INFLUENCE OF RAILWAYS

Fig. 1 shows the railway network of South Bohemia with towns and other municipalities monitored in the article. The main South Bohemian railways were established in the 70s and 80s of the 19th century. Railways created later up to World War I are secondary (local) railways. Tab. 1 shows the influence of the railways on the population development of the monitored municipalities until 1930. In both observed periods, the positive influence of the railway on the population growth of municipalities with rail junctions is evident. Additionally, municipalities with five and four railways had a higher population growth than municipalities with three railways. The population of R2 municipalities with four railways almost doubled between 1869 – 1900, as shown by the CI index.

Tab. 1. Changes in the population of municipalities in South Bohemia in relation to their connection to the railway (1869 – 1930)

Period/indicator	R1 (5 railways)	R2 (4 railways)	R3 (3 railways)	R4 (on railways)	R5 (end of railway)	R6 (railway 2–5 km)	R7 (others)	Monitored municipalities	South Bohemia	
1869 – 1900										
Number	-	3	3	18	-	10	70	104	624	
CI/RCI	-	199/186	159/149	106/99	-	101/94	103/97	114/107	107/100	
Annual popula-	-	2.3	1.5	0.2	-	0.0	0.1	0.4	0.2	
1900 – 1930										
Number	2	3	6	38	5	12	38	104	624	
CI/RCI	129/132	117/120	110/112	100/10	89/91	86/88	85/87	100/103	98/100	
Annual popula-	0.9	0.5	0.3	0.0	-0.4	-0.5	-0.5	0.0	-0.1	

Notes: The municipal categories and indicators are explained in the text. Highlighting indicates high average annual population growth -0.5% or more.

Source: Own processing based on censuses data (CSO 2016 and 2023).

For the other categories, the positive influence of the railway did not manifest itself, or very little. While the municipalities on the railway (R4) stagnated in terms of population, thus copying the average trend of population development in the region, municipalities without railways (R6 and R7) mostly experienced depopulation, which applies especially to the period of 1900 – 1930. The municipalities (small towns) at the end of the local railway (R5), whose representatives arranged to connect the town to the railway network only in the second monitored period, no longer experienced population growth (e.g. Netolice, Vyšší Brod and Bechyně). Municipalities that soon became a railway hub gained a competitive advantage with a higher chance for economic and population growth. The later the municipality was connected to the railway network, the less it profited from the benefits of the railway, as "the cards were already dealt".

The strong influence of the railway on population growth was particularly evident in case of municipalities whose character and importance depended on the railway: in the town of Veselí nad Lužnicí, to a lesser extent in the town of Protivín (both are railway junctions) and also in the town of České Velenice, where large railway repair workshops were established. The opposite example were the towns that have remained without any connection to the railway. These towns stagnated in terms of the population and the economy (Trhové Sviny, Kaplice, Vlachovo Březí, Mladá Vožice and Studená).

# THE INFLUENCE OF TERRITORIAL-ADMINISTRATIVE FUNCTION

From the middle of the 19th century, a new territorial-administrative system in Bohemia was introduced in the form of newly created political and judicial districts (see categories mid-sized and small districts in Tab. 2) arranged around mid-sized and small towns. Towards the end of 1948, i.e. practically only from the 1950s, territorial-administrative regions were created, including the South Bohemian Region itself, and small districts were abolished. In 1961 the mid-sized districts were cancelled and replaced by large districts arranged around selected mid-sized towns. In another territorial-administrative reform carried out around the year 2000, large districts were abolished and mid-sized and small districts were reintroduced (under a different name and with somewhat different boundaries).

With the exception of the last period (2001 - 2021), South Bohemian municipalities with a higher territorial-administrative function always had a larger population increase than municipalities with a lower territorial-administrative function or without these functions (Tab. 2). This is also because the territorial and town administration supported the development of industrial and other enterprises, schools, health care facilities and housing construction mainly in the given town at the expense of other municipalities that fell under the administration of the town. This then brought about an increase in the number of inhabitants in the town.

Until 1930, the factor of territorial-administrative function was most pronounced in the city of České Budějovice, and to a lesser extent in larger towns – centres of mid-sized districts. The average annual increase in the population of these centres was 0.7%, but only 0.4% if České Budějovice is excluded. The lower centres – centres of small districts – as a whole stagnated in terms of population. Their mostly insufficient economic development was saved at least by their territorial-administrative function. The remaining municipalities (mainly rural) fared slightly worse.

A significantly worse development occurred in the following period (1930 – 1950), when almost all territorial-administrative centres lost a part of their inhabitants (including České Budějovice). The vast majority of all other monitored South Bohemian municipalities underwent a strong depopulation (Tab. 2). Municipalities with no or low territorial-administrative function were most affected – see the relevant CI and RCI values in Tab. 2. This was mainly due to the post-war displacement of Germans.

In the 1950s, the situation improved. České Budějovice grew in population significantly as the centre of the newly established South Bohemian Region. Thanks to the new "socialist industry" located in the centres of mid-sized districts, these centres also grew. The subsequent reduction of district centres to only 7 centres of large districts in 1961 and the strong "socialist industrialization" and construction

of panel housing estates in these favoured centres caused their significant population growth. The relatively largest population increase was in the towns of Jindřichův Hradec, Prachatice and Strakonice, whose population doubled between 1961 and 2001.

Tab. 2. Changes in the population of municipalities in South Bohemia in relation to their territorial-administrative function (1869 – 2021)

		Category o								
Period/indicator	A1 region	A2 large district	arge medium- small non-centre		A5 non-centres	Monitored municipalities	South Bohemia			
1869 – 1930										
Number of municipalities	-	-	13	17	74	104	624			
CI/RCI	-	-	161/154	103/99	95/91	114/110	104/100			
Annual pop. growth (%)	-	-	0.7	0.0	-0.1	0.2	0.1			
1930 – 1950										
Number of municipalities	-	-	13	18	73	104	624			
CI/RCI	-	-	99/129	74/96	63/82	79/103	77/100			
Annual pop. growth (%)	-	-	-0.1	-1.5	-2.3	-1.2	-1.3			
1950 – 1961										
Number of municipalities	1	-	16	-	87	104	624			
CI/RCI	116/111	-	109/105	-	105/100	108/104	104/100			
Annual pop. growth (%)	1.2	-	0.7	-	0.4	0.7	0.4			
1961 – 2001										
Number of municipalities	1	6	-	-	97	104	624			
CI/RCI	151/138	159/146	-	-	109/100	128/117	109/100			
Annual pop. growth (%)	1.1	1.2	-	-	0.2	0.6	0.2			
2001 – 2021										
Number of municipalities	1	-	16	20	67	104	624			
CI/RCI	96/95	-	94/93	98/97	104/102	97/96	101/100			
Annual pop. growth (%)	-0.2	-	-0.3	-0.1	0.2	-0.2	0.1			

Notes: The municipal categories and indicators are explained in the text. Highlighting indicates high average annual population growth -0.5% or more.

Source: Own processing based on censuses data (CSO 2016 and 2023).

There have been major changes in the last two monitored decades, as shown in the last lines of Tab. 2. A lower population decline was experienced in the city of České Budějovice as the administrative centre of the region and other larger towns. In the case of České Budějovice and, to a lesser extent, the towns of Tábor and Strakonice, the decrease in population can be attributed primarily to suburbanisation. In the case of peripherally located centres of mid-sized districts (Dačice, Třeboň, Milevsko, Český Krumlov, Prachatice and Vimperk) their territorial-administrative function was overcome by their peripheral location and their deindustrialization.

# THE INFLUENCE OF POPULATION SIZE

In the years 1869 - 1930, the strong population growth, caused mainly by the development of industry, was limited to a few South Bohemian towns. In addition

to České Budějovice, these included Tábor and, to a lesser extent, Písek and Strakonice (see P3 in Table 3). Many small South Bohemian towns in population categories P4 and P5, which have existed since the Middle Ages, stagnated in population during this period because they did not develop industrially (e.g. the towns of Netolice, Bechyně, Týn nad Vltavou, Třeboň and Trhové Sviny). Small municipalities with up to 2,000 inhabitants in category P6 (12 municipalities) increased their population significantly over the period mentioned above. However, this is a result of the methodology used, as these are municipalities that later exceeded the threshold of 2,000 inhabitants.

In the period 1930 – 1950, the population development of South Bohemian municipalities was strongly influenced by the post-war displacement of Germans from the border areas with Austria and Bavaria, as well as from České Budějovice. In the P3 category, only towns of Tábor and Strakonice grew in population. In the following period, the population of larger municipalities over 5,000 inhabitants grew significantly, mainly at the expense of rural municipalities with up to 2,000 inhabitants. The century-long depopulation of the South Bohemian countryside stopped in the post-socialist period (Kubeš 2000). Municipalities in the semi-periphery and mountain municipalities with strong tourism show small population growth, while small rural municipalities in the periphery show small population losses (Kubeš and Chvojková 2020). The outer suburbs around České Budějovice, Tábor and several other larger towns are growing strongly in population, while towns are shrinking somewhat in population.

Tab. 3. Changes in the population of South Bohemian municipalities in terms of population size (1869 – 2021)

	Category of municipalities									
Period/indicator	P1	P2	P3	P4	P5	P6	Monitored	South Bohemia		
1 0110 011 111 111 111 111 111 111 111	50,000+	20,000 – 49,999	10,000 – 19,999	5,000 – 9,999	2,000 – 4,999	up to 1,999	municipalities			
1869 – 1930										
Number of municipalities	_*	_*	4	12	76	12	104	624		
CI/RCI	-	-	211/149	102/98	93/90	161/154	114/110	104/100		
Annual pop. growth (%)	-	-	1.3	0.0	-0.1	0.8	0.2	0.1		
1930 – 1950										
Number of municipalities	1	-	4	12	64	23	104	624		
CI/RCI	94/123	-	108/141	70/92	67/88	85/110	79/103	77/100		
Annual pop. growth (%)	-0.3	-	0.4	-1.7	-2.0	-0.8	-1.2	-1.3		
1950 – 1991										
Number of municipalities	1	2	2	7	39	53	104	624		
CI/RCI	175/154	149/132	193/170	155/137	119/106	91/81	136/120	113/100		
Annual pop. growth (%)	1.4	1.0	1.7	1.1	0.4	-0.2	0.8	0.3		
1991 – 2021										
Number of municipalities	1	4	2	12	30	55	104	624		
CI/RCI	96/95	95/94	89/88	94/92	109/107	105/104	98/97	101/100		
Annual pop. growth (%)	-0.1	-0.2	-0.4	-0.2	0.3	0.2	-0.1	0.0		

Notes: The municipal categories and indicators are explained in the text. Highlighting indicates high average annual population growth -0.5% or more. \*České Budějovice had less than  $20,\!000$  inhabitants in 1869.

Source: Own processing based on censuses data (CSO 2016 and 2023).

### DISCUSSION

The overall influence of the railway on the population development of smaller municipalities located along the transit railway can be assessed as contradictory, as the railway line contributed to increasing the mobility of their inhabitants and could later contribute to their migration to the towns. Especially in recent years, the population growth of suburban municipalities on railway lines near cities can be observed (Urbánková and Ouředníček 2006), because the railway enables fast, comfortable and safe commuting to work. In South Bohemia, this is particularly true for municipalities on the railway lines to České Budějovice and Tábor, where modern passenger trains operate.

It was only in the post-socialist period that the influence of the territorial-administrative function of municipalities on their population development was significantly weakened. The planning system that favoured district towns had ended. Representatives of individual municipalities began to influence the development of their municipalities themselves, including the demarcation of areas for the construction of single-family and multi-family houses for existing and new residents.

The settlement system of South Bohemia is monocentric-polycentric, with the dominant "one – hundred – thousand city" of České Budějovice and 18 urban centres of micro-regions with another 199,000 inhabitants (Kubeš and Chvojková 2020). A total of 14 other very small towns has a population of 53,000. About 71,000 inhabitants (10.9%) live in the suburban zone of České Budějovice and Tábor. About 35.8% of the population of South Bohemia live in purely rural municipalities. However, in 1869 this proportion was about 80.8%, in 1910 about 74.1% and in 1950 about 64.2% (CSO 2016). It should be noted that the depopulation of the South Bohemian countryside, which lasted for almost 100 years, has recently stopped (Edelmanová 2019).

The methodology used also showed its limitations. The monitored periods are not of equal length, so the values in them were also relativised to annual averages. Only the set of larger municipalities with 2,000 inhabitants or more was monitored, but the values for the remaining smaller municipalities can be derived from the data for the set of monitored municipalities and for all municipalities in the region. In many cases, all the factors analysed acted simultaneously, making it difficult to distinguish their partial effects.

In addition to the factors monitored in the article, when evaluating the population development of South Bohemian municipalities between 1869 and 2021, the influence of birth and death rates and the balance of migration in individual periods cannot be neglected. According to Korčák (1972), South Bohemia had between 1870 and 1930 an annual natural population increase of 0.840% (above average within Bohemia). An annual decrease due to migration of 0.845%, very high within Bohemia, mainly due to migration to Vienna, Prague and overseas. In contrast to other regions of Bohemia, there was a decline in population. In the countryside and in the border districts of South Bohemia inhabited by Germans, the development trends were even less favourable.

At the end of the 1940s and during the 1950s, the annual natural increase of the population of South Bohemia was at the level of 0.50 - 0.40%, during the 1960s it fell to 0.21%. Its significant increase in the second half of the 1970s (0.50 - 0.70%) was the result of state pro-natality programmes. In the early 1990s, in a time of political, social and economic transformation, the natural balance of the population

went into negative values (-0.11% in 1995), after which it increased only slowly (Edelmanová 2019). In the past, South Bohemians, mainly from rural municipalities, moved to Prague, north-west Bohemia, the Ostrava agglomeration or abroad to work and live. After one hundred years of migration losses, the migration balance of South Bohemia has been slightly positive since the end of the 1970s (Klučka and Nováček 2020).

Population losses due to the events of World Wars I and II also reduced the population base in South Bohemia. The most significant event for the population development was the displacement of Germans from the region to West Germany and Austria after World War II. In 1930, about 148,000 (20.6%) of the inhabitants of South Bohemia were of German ethnicity, especially in the districts along the state border. New settlers – Czechs from the Bohemian and Moravian hinterland, but also Slovaks and Romanian Slovaks – then moved into the border districts, but could not fully compensate for the loss of population. The result was a fundamental decrease in the population of the border areas and a smaller decrease in the population of the interior of South Bohemia (Klučka and Nováček 2020).

In the years 1948 – 1989, during the period of socialism, the border with West Germany and Austria became a closed, guarded zone. Many villages near the border have disappeared. New industrial plants requiring large numbers of workers were built in South Bohemian towns. The result was a large number of commuters using public transport and a large migration from the South Bohemian countryside to the industrialised towns.

At the turn of the 1970s and 1980s, the South Bohemian countryside was negatively affected by the initial implementation of the Centralized Settlement System plan. In an effort to reduce the cost of running a large number of small rural settlements, it was planned to reduce their number by banning the construction of family houses and the technical infrastructure in them. People from small rural settlements were supposed to gradually move to larger central rural municipalities, but they often went straight to towns (Kubeš 2000).

The last remark concerns population development in the post-socialist period. A significant change is the strong population growth of municipalities located on the outskirts of larger towns since the end of the 1990s as a result of suburbanisation. For example, the suburban municipalities around České Budějovice gained about 17,000 new inhabitants from the end of the 1990s to the present (Kubeš and Nováček 2019).

### CONCLUSION

The population development of South Bohemian municipalities was strongly influenced by the gradual construction of railways during the industrial revolution. Municipalities located at major railway junctions experienced strong population growth, while those far from the railway lost population (see the first input assumption). Mainly since the 1950s, road transport has taken over a significant part of rail transport. In the current period of suburbanisation, the railways have again contributed to population growth in the suburban municipalities located on the railways.

During the period of socialism, the administration of regional or district towns supported development mainly in these central towns, often at the expense of other municipalities in the region or district. This approach mainly harmed smaller towns

that had not become the centres of (large) districts (see the second input assumption). These smaller towns lagged significantly behind in terms of investment allocation and housing construction, which had a negative impact on their population development. In the post-socialist period, urban and rural municipalities were no longer dependent on central planning and management in districts and regions; their development began to be largely influenced by their governments.

For most of the monitored period, municipalities with larger numbers of inhabitants, especially larger towns, recorded the largest population increases. However, this ceased to be the case in the post-socialist era, when the population grew mainly in the suburban municipalities around the larger towns as a result of suburbanisation (see third entry assumption).

Other factors and events also influenced the population development of the South Bohemian municipalities. These include, in particular, the development of the natural and migratory balance of the population in individual periods, the loss of population during the war, the post-war displacement of Germans from the border areas, the flight of the population to the West in search of freedom, the migration from the countryside to industrial towns and cities, and the aforementioned suburbanisation and also a weak counter-urbanisation (Edelmanová 2019) in recent years.

### REFERENCES

- ANTROP, M. (2004). Landscape change and the urbanization process in Europe. Landscape and Urban Planning, 67(1-4), 9-26. DOI: https://doi.org/10.1016/S0169-2046 (03)00026-4
- AUÈRHAN, J. (1934). Vliv železnice na hustotu a vzrůst obyvatelstva okresních měst a ostatních obcí v Čechách v letech 1869 1930. *Statistický obzor*, 15, 186-191.
- BAIROCH, P., GOERTZ, G. (1986). Factors of urbanisation in the nineteenth century developed countries: A descriptive and econometric analysis. *Urban Studies*, 23, 285-305. DOI: https://doi.org/10.1080/00420988620080351
- BARTOSIEWICZ, B., KWIATEK-SOŁTYS, A., KUREK, S. (2019). Does the process of shrinking concern also small towns? Lessons from Poland. *Quaestiones Geographicae*, 38, 91-105. DOI: https://doi.org/10.2478/quageo-2019-0039
- BAŠOVSKÝ, O., MAJBOVÁ, E. (1977). Koncentrácia obyvateľstva SSR a problémy životného prostredia. *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Formatio et Protectio Naturae*, 2, 27-42.
- BOGART, D., YOU, X., ALVAREZ, E., SATCHELL, M., SHAW-TAYLOR, L. (2019). Railway endowments and population change in 19th century England and Wales. Unpublished Manuscript. Irvine (University of California), [Online]. Available: <a href="https://citex.socsci.uci.edu/~dbogart/summaryresultsjuly232019.pdf">https://citex.socsci.uci.edu/~dbogart/summaryresultsjuly232019.pdf</a> [accessed 10 June 2023].
- BRAUN, S. T., FRANKE, R. (2022). Railways, growth, and industrialization in a developing German economy, 1829 1910. *Journal of Economic History*, 82, 1183-1221. DOI: https://doi.org/10.1017/S0022050722000377
- BUČĖK, J., BLĒHA, B., RICHTER, M. (2022). Coping with shrinkage in old and young mining cities in Slovakia: The cases of Banská Štiavnica and Prievidza. In Wu, C., Gunko, M., Stryjakiewicz, T., Zhou, K., eds. *Postsocialist shrinking cities*. London (Routledge), pp. 276-294. DOI: https://doi.org/10.4324/9780367815011
- BÜCHEL, K., KYBURZ, S. (2020). Fast track to growth? Railway access, population growth and local displacement in 19th century Switzerland. *Journal of Economic Geography*, 20, 155-195. DOI: https://doi.org/10.1093/jeg/lby046
- CSŐ (2016). *Historický lexikon obcí České republiky 1869 2011*. Praha (Český statistický úřad), [Online]. Available: <a href="https://www.czso.cz/csu/czso/historicky-lexikon-obci-1869-az-2015">https://www.czso.cz/csu/czso/historicky-lexikon-obci-1869-az-2015</a> [accessed 23 December 2022].

- CSO (2023). Databáze demografických údajů za obce ČR. Praha (Český statistický úřad), [Online]. Available: <a href="https://www.czso.cz/csu/czso/databaze-demografickych-udaju-za-obce-cr">https://www.czso.cz/csu/czso/databaze-demografickych-udaju-za-obce-cr</a> [accessed 13 June 2023].
- EDELMANOVÁ, D. (2019). Populační vývoj a současné migrační tendence venkovských obcí jižních Čech. Praha (Univerzita Karlova).
- GREGORY, I. N., HENNEBERG, J. M. (2010). The railways, urbanization, and local demography in England and Wales, 1825 1911. *Social Science History*, 34, 199-228. DOI: https://doi.org/10.1215/01455532-2009-025
- HAASE, A., BONTJE, M., COUCH, C., MARCINCZAK, S., RINK, D., RUMPEL, P., WOLFF, M. (2021). Factors driving the regrowth of European cities and the role of local and contextual impacts: A contrasting analysis of regrowing and shrinking cities. *Cities*, 108, 102942. DOI: https://doi.org/10.1016/j.cities.2020.102942
- HEIDER, B. (2019). What drives urban population growth and shrinkage in postsocialist East Germany? *Growth and Change*, 50, 1460-1486. DOI: https://doi.org/10.1111/grow.12337
- HEIDER, B., ROSENFELD, M. T., KAUFFMANN, A. (2018). Does administrative status matter for urban growth? Evidence from present and former county capitals in East Germany. *Growth and Change*, 49, 33-54. DOI: https://doi.org/10.1111/grow.12213
- HORNAK, M. (2004). Rozmiestnenie obyvateľstva vzhľadom k železničnej sieti SR ako jeden z argumentov pre podporu rozvoja osobnej železničnej dopravy. *Acta Facultatis Rerum Naturalium Universitatis Comenianae, Geographica*, 45, 27-37, [Online]. Available: <a href="http://humannageografia.sk/clanky/Hornak">http://humannageografia.sk/clanky/Hornak</a> 2004a.pdf [accessed 1 June 2024].
- JAŽDŽEWSKA, I. (2006). Factors determining changes in urban settlement system in Poland in the 20th century. *Acta Facultatis Studiorum Humanitatis et Nature Universitatis Presoviensis. Folia Geographica*, 10, 217-223, [Online]. Available: <a href="https://www.researchgate.net/publication/323382677">https://www.researchgate.net/publication/323382677</a> [accessed 5 June 2023].
- KLUČKA, S., NOVAČEK, A. (2020). Regionální diferenciace vývoje počtu obyvatel v Jihočeském kraji v letech 1869 2017. *Geografický časopis*, 72, 173-191. DOI: https://doi.org/10.31577/geogrcas.2020.72.2.09
- KOOPMANS, C., RIETVELD, P., HUIJG, A. (2012). An accessibility approach to rail-ways and municipal population growth, 1840 1930. *Journal of Transport Geography*, 25, 98-104. DOI: https://doi.org/10.1016/j.jtrangeo.2012.01.031
- KORČÁK, J. (1972). Populační vývoj jižních Čech. Sborník Československé společnosti zeměpisné, 77, 29-36, [Online]. Available: <a href="https://geografie.cz/media/pdf/geo\_1972077">https://geografie.cz/media/pdf/geo\_1972077</a> 010029.pdf [accessed 3 June 2023].
- KUBEŠ, J. (2000). Vývoj obyvatelstva venkovských sídel 1910 1998. Okresy Písek, Tábor a jihočeská oblast. In Kubeš, J., ed. *Problémy stabilizace venkovského osídlení ČR*. České Budějovice (Jihočeská univerzita v Českých Budějovicích), pp. 7-34.
- KUBEŠ, J., CHVOJKOVÁ, A. (2020). Back to peripheries based on remoteness. Human capital in the peripheral municipalities of South Bohemia. *Journal of Rural Studies*, 70, 116-124. DOI: https://doi.org/10.1016/j.jrurstud.2020.08.045
- KUBEŠ, J., NOVÁČEK, A. (2019). Suburbs around the Czech provincial city of České Budějovice territorial arrangement and problems. *Hungarian Geographical Bulletin*, 68, 65-78. DOI: https://doi.org/10.15201/hungeobull.68.1.5
- LEETMAA, K., KRISŽAN, A., NUGA, M., BURDACK, J. (2015). Strategies to cope with shrinkage in the lower end of the urban hierarchy in Estonia and Central Germany. *European Planning Studies*, 23, 147-165. DOI: https://doi.org/10.1080/09654313. 2013.820100
- MARTINEZ-FERNANDEZ, C., AUDIRAC, I., FOL, S., CUNNINGHAM-SABOT, E. (2012). Shrinking cities: Urban challenges of globalization. *International Journal of Urban and Regional Research*, 36, 213-225. DOI: https://doi.org/10.1111/j.1468-2427.2011.01092.x
- MITRICĂ, B., SĂGEATĂ, R., GRIGORESCU, I. (2014). The Romanian urban system an overview of the postcommunist period. *Forum geografic*, 13, 230-241. DOI: http://dx.doi.org/10.5775/fg.2067-4635.2014.179.d

- MORRILL, R. L. (1963). The development of spatial distributions of towns in Sweden: An historical-predictive approach. *Annals of the Association of American Geographers*, 53, 1-14. DOI: https://doi.org/10.1111/j.1467-8306.1963.tb00428.x
- NOVÁČEK, A. (2005). Vývojové trendy polarizace prostoru v Česku. In Novotná, M., ed. *Problémy periferních oblastí*. Praha (Univerzita Karlova), pp. 25-35.
- NOVOTNÝ, L., CSACHOVÁ, S., NESTOROVÁ, J. (2016). Development trajectories of small towns in East Slovakia. *European Countryside*, 8, 373-394. DOI: https://doi.org/10.1515/euco-2016-0026
- REULECKE, J. (1977). Population growth and urbanization in Germany in the 19th century. *Urbanism Past & Present*, 4, 21-32, [Online]. Available: <a href="https://www.jstor.org/stable/44403540">https://www.jstor.org/stable/44403540</a> [accessed 6 June 2024].
- RUNGE, A., RUNGE, J., KANTOR-PIETRAGA, I., KRZYSZTOFIK, R. (2020). Does urban shrinkage require urban policy? The case of a post-industrial region in Poland. *Regional Studies, Regional Science*, 7, 476-494. DOI: https://doi.org/10.1080/21681376.2020.1831947
- SCHRAM, A. (1997). Railways and the formation of the Italian State in the nineteenth century. Cambridge (Cambridge University Press), [Online]. Available: <a href="http://hdl.handle.net/1814/5972">http://hdl.handle.net/1814/5972</a> [accessed 16 Juni 2024].
- SCHWARTZ, R., GREGORY, I., ŤHÉVENIN, T. (2011). History of railways, uneven development and population change in France and Great Britain, 1850 1914. *Journal of Interdisciplinary History*, 42, 53-88. DOI: https://doi.org/10.1162/JINH a 00205
- SEIDENGLANZ, D., CHVÁTAL, F., NEDVEDOVÁ, K. (2014). Comparison of urban and suburban rail transport in Germany and in the Czech Republic. *Review of Economic Perspectives*, 14, 165-194. DOI: https://doi.org/10.2478/revecp-2014-0009
- SZYMANSKA, W., MICHALSKI, T. (2019). Population changes in former voivodeship cities in Poland in the context of suburbanization processes and loss of the administrative function. *Environmental & Socio-economic Studies*, 7(3), 66-78. DQI: https://doi.org/10.2478/environ-2019-0018
- URBÁNKOVÁ, J., OUŘEDNÍČEK, M. (2006). Vliv suburbanizace na dopravu v Pražském městském regionu. In Ouředníček, M., ed. Sociální geografie pražského městského regionu. Praha (Univerzita Karlova), pp. 79-95.
- WIECHMANN, T., WOLFF, M. (2013). Urban shrinkage in a spatial perspective—operationalization of shrinking cities in Europe 1990 2010. In AESOP ACSP Joint Congress, Dublin, 15–19 July 2013. Dublin (University Collage Dublin), pp. 1-20, [Online]. Available: <a href="https://proceedings.aesop-planning.eu/index.php/aesopro/issue/view/8">https://proceedings.aesop-planning.eu/index.php/aesopro/issue/view/8</a> [accessed 1 Juni 2023].

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# DLOUHODOBÝ VÝVOJ OBYVATELSTVA JIHOČESKÝCH OBCÍ V LETECH 1869 – 2021 POHLEDEM VYBRANÝCH FAKTORŮ

Výzkum dlouhodobého populačního vývoje obcí je jedním z důležitých úkolů humánní geografie. Tento vývoj je ovlivňován řadou faktorů, především polohových a socioekonomických. Vzhledem k šíři problematiky se autoři článku rozhodli věnovat pozornost třem vybraným faktorům působícím na tento vývoj – faktoru polohy obce vůči železnici, faktoru územně-správní funkce obce a faktoru populační velikosti obce, vše v rámci jižních Čech v krajském vymezení.

Analýzy článku vycházejí z údajů o obyvatelstvu ze sčítání lidu mezi lety 1869 a 2021. V článku jsou sledovány obce, které minimálně ve dvou sčítáních překročily hranici 2 000 obyvatel. Jedná se o 104 obcí z 624 obcí Jihočeského kraje. Použitými indikátory jsou prů-

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měrný roční přírůstek počtu obyvatel, index populační změny (CI) a index zohledňující populační vývoj sledovaného typu obcí oproti populačnímu vývoji celého kraje (RCI).

Při posuzování vlivu železnice jsou obce rozděleny do sedmi kategorií: obce s železniční stanicí napojenou na 5, 4 a 3 železniční tratě, obce s železniční stanicí na průběžné železnici, obce s koncovou železniční stanicí, obce se železniční stanicí vzdálenou 2 – 5 km a ostatní obce. U tohoto faktoru se analyzuje pouze období let 1869 – 1900 a 1900 – 1930. Při posuzování vlivu územně-správní funkce obcí se obce rozčleňují do pěti kategorií: středisko kraje, střediska velkého okresu, střediska středně velkého okresu, střediska malého okresu a obce bez střediskové územně-správní funkce. Při posuzování vlivu populační velikosti obce jsou obce uspořádány do šesti velikostních kategorií.

Obr. 1 zachycuje železniční síť Jihočeského kraje a sledované obce v kontextu jejich dlouhodobého populačního vývoje. V obou sledovaných obdobích vlivu železnice je do roku 1930 patrná její pozitivní působnost na populační růst obcí zvláště v případě obcí s železničními uzly (tab. 1). Malá města na konci místní železnice, která byla na železnici připojena až v období 1910 – 1930, již vykazovala populační ztráty. Projevuje se zde pravidlo, že čím později byla obec napojena na železnici, tím méně mohla těžit z výhod železnice. Obce bez železnice vykazovaly výraznější vylidňování. S výjimkou posledního období let 2001 – 2021 měla jihočeská města s vyšší územně-správní funkcí vždy větší přírůstek obyvatel než další města a obce (tab. 2). Je tomu tak i proto, že administrativa těchto měst podporovala výstavbu domů, bytů a další rozvoj na svém území, často na úkor do okresu či kraje příslušejících obcí.

Jak ukazuje tab. 3, silný populační růst v letech 1869 – 1930 se týkal jen několika jihočeských měst (Ceských Budějovic, Tábora a v menší míře Písku a Strakonic). Byl způsoben rozvojem tamního průmyslu a železniční dopravy. Řada menších jihočeských měst, existujících od středověku, která byla středisky okresů v této době, populačně stagnovala, protože se dopravně a průmyslově nerozvíjela. V následujícím období byl populační vývoj obcí silně ovlivněn poválečným odsunem Němců z jihočeského pohraničí. Za socialismu silně rostl počet obyvatel ve městech nad 10 000 obyvatel, tj. obcí okresních měst se silnou industrializací a bytovou výstavbou, a to především na úkor venkova. Zhruba stoleté vylidňování jihočeského venkova se zastavilo až v postsocialistickém období. Větší jihočeská města se ale v tomto období začala mírně populačně smršťovat.

Na populačním vývoji jihočeských obcí se podílela i řada dalších faktorů, jako vývoj přirozené a migrační bilance, válečné ztráty obyvatel, odsun Němců z pohraničí, uvolňování pracovní síly ze socialistického zemědělství, socialistická industrializace a v posledním sledovaném období zejména suburbanizace.



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