

Is the European countryside depopulating? Case study Moravia

Antonín Vaishar^a, Milada Štastná^{a,*}, Jana Zapletalová^b, Eva Nováková^b

^a Mendel University in Brno, Department of Applied and Landscape Ecology, Zemědělská 1, 61300, Brno, Czech Republic

^b Institute of Geonics of the CAS, Drobňého 28, 61300, Brno, Czech Republic

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ABSTRACT

The paper investigates the recent population development of Moravian rural micro-regions. It divides all 72 micro-regions into four categories according to the relation of natural demographic balance and net migration in the period of 2012–2016. It showed that all size categories of the Moravian rural municipalities till 5000 inhabitants are gaining population by migration whereas small towns lose inhabitants. No relation between the demographic type of the countryside and unemployment was observed. It shows, that the Moravian rural areas are not depopulating in general, its demographic development does not depend on the unemployment. However, the Moravian countryside is differentiated. There are some extremely peripheral parts of Moravia often lacking any real urban centre, where the depopulation is the problem. Depopulating micro-regions can be found in the northern, south-western and eastern periphery of Moravia. Such territories should be solved individually according to the local conditions.

1. Introduction

Publicists, politicians (including the EU level) and the public often speak about depopulating countryside. It is sometimes used the term shrinking villages (e.g. Pužulis and Küle, 2016). Is it generally the case or is it connected only with some parts of the countryside? Two processes meet in rural areas. Rural-to-urban migration, prevailing in the past, has been complemented with urban-rural movements within suburbanization, counter-urbanization, naturbanization (or amenity migration). The mentioned trends could manifest differently in individual types of rural municipalities (according to their geographical position, size, economic activity or path dependency).

As Bock et al. (2015) state, migration to rural areas is a new phenomenon in the European North. However, it is partly perceived as moving of international migrants from east and central European countries to the countryside of northern Europe. Similar trends can be found in southern Europe (Almeida et al., 2016). However, could it be possible to speak also about a massive urban-to-rural migration on the intra-national level?

Novotná et al. (2013) characterize the causes of new migration trends in Czechia after 1990 as follows: social and environmental problems in cities, the increase in automobile use and the development of communication technologies, the migration of pensioners who settle

in second homes, and the changing residential preferences of people and entrepreneurs. The trends seem to be connected with the transition towards the post-productive society.

The demographic development is the second process. Is the fertility rate the same in urban and rural settlements? What about ageing? And in general: Is it still possible to speak about the countryside as a population source for cities? Many authors speak about rural depopulation. Abandoned villages are the extreme outcome of the rural depopulation (di Figlia, 2016). Filipe and de Mascarenhas (2011) mention following group of reasons: economic (loss of the ability to compete economically with urban regions), social (ageing and low qualification level of rural population), psychological and others (political and planning).

Young people, especially university-educated move from rural to urban areas (Bjerke and Melander, 2017). It seems (Vaishar and Petrů, 2018), that young people in Czechia leave their rural homes searching for a career, prestigious and well-paid jobs, rich social life. Sometimes they could flee before too hard social control in the rural milieu.

On the other side, some seniors move from cities to the countryside (although the migration preferences and motivations of seniors are differentiated by the increasing importance of health reasons; Kakaš and Bleha, 2017). In such a case, it could happen that although the countryside is not depopulating, the age structure of its population changes in a negative sense. Simon (2014) found that more than a half of migrants

* Corresponding author.

E-mail addresses: antonin.vaishar@mendelu.cz (A. Vaishar), stastna@mendelu.cz (M. Štastná), zapletalova1@seznam.cz (J. Zapletalová), eva.novakova@ugn.cas.cz (E. Nováková).

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to the remote areas do not take part in the economic process (being seniors, unemployed or persons on the maternity leave), 55% of working migrants commute to original urban centres (but only 20% daily). Almost all move from prefabricated or tenement buildings to single-family houses. Most of them are looking for the rural environment – not the rural lifestyle.

The ageing countryside is more conservative, it has a lower economic and human potential, lower tax revenues, lower motivation for any development. Ultimately, its demographic future could be questionable. On the other side, Hansen and Aner (2017) speak about highly educated people moving to the rural periphery concerning their preferences in housing conditions, local natural and social amenities. Fischer (2014) points out certain differences in the group of seniors: whereas the people of the third age are active and search for an optimum lifestyle (often in the countryside), the elder seniors (the fourth age) are more or less connected with the place. They are more demanding for social care (which is more accessible in towns).

Speaking about the countryside, it is necessary to have in mind that there exists no unified countryside but a set of different countryside types. The suburban countryside has most probably different characteristics of the population development than a periphery. Consequently, it is probably not possible to speak about depopulating countryside but about the depopulation of some parts of the countryside.

Consequently, old one-sided rural-to-urban migration, connected with the productive society has been changed into a set of double-sided migration processes, differentiated according to their motivation, intensity, education and age population groups and characteristics of the specific type of the countryside in the period of the transition to the post-productive society. The rural-to-urban migration meets the urban-to-rural one. Both types operate in the opposite direction, complement and influence each other and also change over time. Differentiated manifestations in individual parts of rural areas are the result.

Based on the analysis of natural and migration population development, the aim of this paper consists in a setting of a typology of the Moravian countryside according to the depopulation tendencies, and in answering the question which types of the Moravian countryside are threatened by the depopulation. We will discuss possible causes and consequences of the population development in rural micro-regions in Moravia. Additionally, we try to confront the results with possible differences in fertility and the ageing process.

The paper is aimed at a discussion of three presuppositions: [1] The population development of the Moravian countryside is differentiated according to the distance of individual micro-region from the corresponding regional metropolis, [2] the population development depends also on the size (population number) of individual municipalities [3] in the case when the Moravian countryside is not depopulating, it is ageing more quickly than towns.

2. Second demographic transition, urbanization and the Czech countryside

2.1. National population development

Second demographic transition (van de Kaa, 1987) is a demographic process occurring in the most developed countries in the second half of the last century. In central European conditions it can be manifested a little bit later (Lesthaeghe, 2010). It is possible to estimate that its top was in the last decade of the 20th century in Czech conditions. Decrease of fertility deeply under the simple reproduction level (2.10 life born children per women during her reproduction age) is the main characteristic of the process. This phenomenon was firstly recorded in Czechia in the 1930s, later from 1966 to 1972. Then central-planned society responded with relatively extensive pro-natalist measures which increased births. Children who were born that time came into the reproduction process after 2000 which caused temporarily increasing of the natural increase of population. The general fertility

rate definitively fell below the sustainable limit in 1981.

Sobotka et al. (2003) show that the process of the second demographic transition in Czechia has seriously deepened at the beginning of the 1990s, with about 20-year delay in comparisons with Western Europe. New social conditions after 1989 have opened many occasions for young people including travelling, business, building a career etc., which caused in the very low fertility (1.13 in 1999). Later the fertility has increased again till the value 1.69 in 2017. The life expectancy by birth was 47 (men) and 50 (women) years in 1920. It increased for 51 and 57 years in 1945, later for 67 and 74 years in 1968, for 68 and 75 years in 1989 and 76 and 82 years in 2017.

Naturally, the population development in the countryside depends on the population development in the whole country (Fig. 1). In European countries which lose big amounts of the population by foreign emigration (like Bulgaria, Rumania or ex-GDR), the rural population decrease is very probable. In Czechia, during the 1970s and 1980s, the natural development was more or less balanced. A large slump was noticed shortly after the regime change. The fertility of rural women is higher a little bit which is probably connected with their lower education level. Less-educated women have more time for the reproduction process and less alternative possibilities of self-realization. The natural loss was balanced by positive net migration. Later, the country recorded a natural increase in the period of 2006–2010 when the baby boomers from 1970s came into the reproduction process.

By now, the situation is balanced again with a small population increase. The Czech population increase is led by immigration in the last time. In the 1980s, the migration balance was also more or less balanced. The immigration boom came around the year 2007 (before the economic crisis). However, the foreign immigration is directed mostly to cities (90%), except the family reunion which concerns mostly Slovaks) and it impacts on the rural population much less than on the urban one.

2.2. National rural population development

The long-term population development of rural municipalities (under 2000 inhabitants) is in Fig. 2. It shows that the total population number very slowly increased crossing the limit of 10 million in the 1970s, whereas the rural population has recorded a contradictory development. It rapidly decreased between 1960 and 1990 for approximately a half, but later it is growing again until 2.8 million at present. Probably, the deep decrease and again increase in the period 1980–1992 was partly caused by the amalgamation of municipalities in the 1980s and their separation after 1989. However, the continuous population growth of the rural population can be recorded since 1996.

Of course, both natural development and migration take part in this development. The rural population is growing mainly due to the inner migration from cities to villages. The natural development of the rural population is more or less balanced. The population increase in the Czech municipalities below 2000 inhabitants in 2017 is as follows: inner migration +12,568 persons, foreign migration +3079 persons, natural increase +1117 persons.

The rural-to-urban migration in the second half of the last century is usually connected with agricultural abandonment especially in less favourable areas in Europe (e.g. McDonald et al., 2000). This process was connected with the collectivization of agriculture in Czechia, in the 1950s. However, it was rather a result of the urban industrialization supported by mass construction of prefabricated housing estates in cities as a pull factor, not so much with the rural abandonment as a push factor. Nevertheless, demographical results were very similar: decrease of the rural population and worsening its age structure.

The post-socialist transformation did not bring substantial changes in the organization of agricultural production. The decisive part of the land is cultivated by large enterprises in legal forms of joint-stock companies, limited liability companies or transformed cooperatives. Only a small part of former farmers have returned to the agricultural activities and farming way of life. The decrease of employment in the primary sector

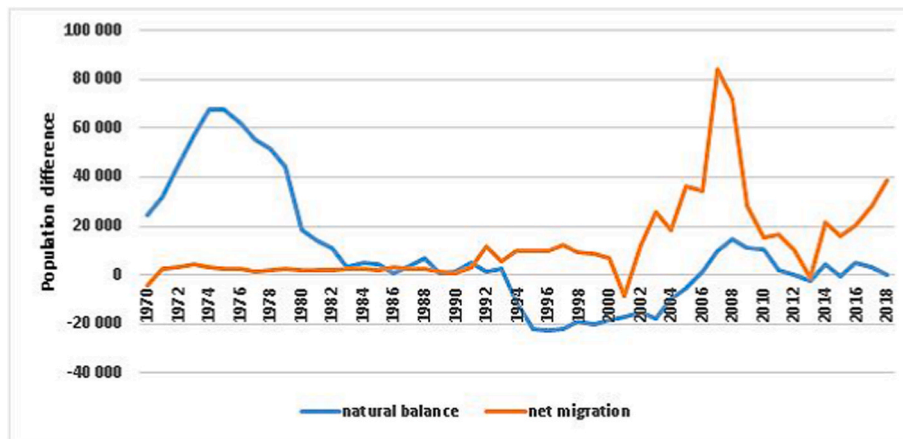


Fig. 1. Population change in the Czech Republic 1970–2018. Source: Public database, Czech Statistical Office Praha; own elaboration.

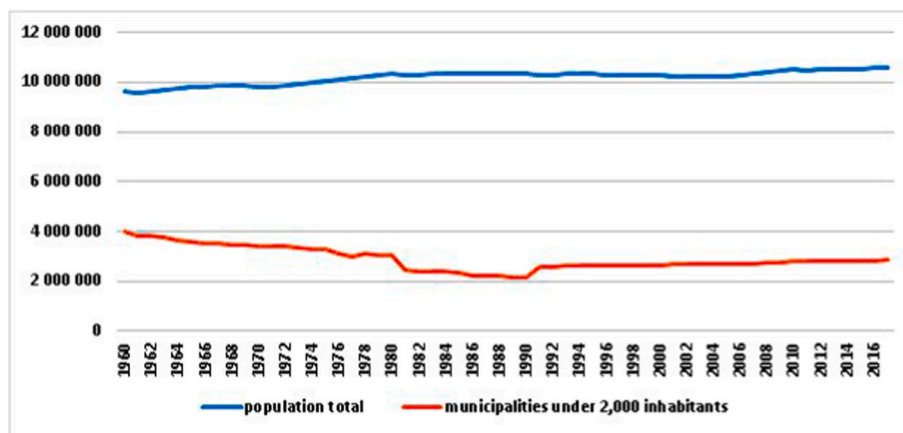


Fig. 2. Long-term population development of the Czech rural municipalities in the period 1960–2016.

was caused by an increase of the productivity in private companies and also statistically by the separation of non-agricultural activities from agricultural companies (which was developed in former Czechoslovakia within the agriculture cooperatives). The decrease of the rural population was stopped around 1995 together with the end of the mass construction of flats in cities and towns. The number, as well as the share of rural population slowly increases in the last 20 years. Villages together with small towns (up to 20,000 inhabitants) accommodate about 55% of the Czech population.

Theoretically, four different types of rural-urban migration can be expected. The first one is traditional, originating from the period when the countryside served as a source of the population for cities. In rural areas, it could be manifested by still positive natural balance and high emigration. The suburban countryside is the second expected type. It is characterized by a high migration increase into the rural settlements which is followed by the positive balance of natural increase because first of all young people move to the suburban countryside. In the third type of rural settlements, young people move into cities for prestigious and well-paid jobs whereas seniors are looking for (sometimes seemingly) easier and cheaper way of life and come (often return) to the countryside. The prevailing natural loss is (at least partly) balanced by a positive balance of migration. The fourth type can be classified as the abandoning countryside. It is characterized by negative balances both natural and migration population development. Of course, individual types can have subtypes and intermediate types.

More ways of rural differentiation can be found in the literature. In any case, at least three different rural territories can be found in almost any country: suburban, typical and peripheral. [Perpar and Kovacic](#)

(2002) even define the peripheral countryside as a rural area which is depopulating. In the Italian literature (e.g. [Punziano and Urso, 2016](#)), it is spoken about inner areas which are losing population.

Naturally, the trend is different in various types of countryside. Using the demographic viewpoint, [Stonawska and Vaishar \(2017\)](#) divided micro-regions of Moravia into four categories: suburbanized countryside, progressive countryside, deficient countryside, and urban areas. The suburbanized countryside shows definite population increase and much better demographic characteristics in the comparison is not only with other types of the countryside but also with cities. The situation of other types of the countryside is less clear. Individual municipalities register different trends both positive and negative. We can find also micro-regions (usually far from regional metropolises and lacking their centre capable enough to integrate the rural hinterland) which are depopulating.

3. Methodological overview

Municipalities under investigation in the South Moravian Region were divided into following size groups: [1] very small municipalities (0–199 inhabitants), [2] small municipalities (200–499 inhabitants), [3] medium-size rural municipalities (500–999 inhabitants) [4] large rural municipalities (1000–1999 inhabitants), [5] very small towns (2000–4999), [6] small towns (5000–9999 inhabitants), and [7] small to medium towns (10,000–19,999 inhabitants). Larger municipalities were not taken into account.

The natural balance and the balance of migration was calculated for each micro-region and each size category of municipalities. The sum of

both movements results in the total population balance. Resulting values were used for the typology of the micro-regions according to the population development. In such a way, depopulating areas or micro-regions threatened by the depopulation were delimited. The five years of 2012–2016 was taken into account. The reason is that a one-year period could be misleading due to the insufficient number of demographic cases. A longer than 5-year period was not applied because the research question is aimed at the contemporary development. However, in general, it is possible to state, that the population increase of rural settlement started between censuses 1991 and 2001. In the beginning, it could be connected with the stopping of the mass construction of prefabricated housing estates in cities (about 1993 or 1994). Later, processes of suburbanization (in the case of Brno approximately after 2000), counter-urbanisation and naturbanization started to play their roles. At present, to gain houses or flats in big cities and/or their surroundings is financially problematic for both young families and seniors. It could be one of the reasons why they are looking for an accommodation in more distanced areas.

The ageing will be characterized by available hard data, namely with the share of the population in the senior age (65 years and more). The data originate from the last population census (2011). At present, the numbers are outdated and it is possible to presuppose that the population is somewhat elder in reality. However, not absolute data but inter-regional differences are substantial for the typology.

4. Empiric research

4.1. Population development in the regional view

The data for individual micro-regions can be found in the appendix. The balance of natural development is in Fig. 3 (the city of Brno and the military training area Březina were excluded from the analysis). The west-east division could be observed with some exceptions. Of course, in the suburbanized hinterland of Brno is the natural population increase

most visible. A positive migration balance is more usual. The immigration prevails especially in the most peripheral parts of the land in the north, south-west and south-east of Moravia.

The total population balance is displayed in Fig. 4. As expected, the general situation depends mostly on the vicinity of individual micro-regions towards regional or sub-regional centres. Of course, the most visible role is played by the city of Brno, followed with remaining regional centres Ostrava, Olomouc, Zlín and Jihlava and with some more important district towns Znojmo and Zďár nad Sázavou. The most visible concentrations of depopulating micro-regions are situated in northern Moravia (borderland with Bohemia and Silesia), south-western Moravia (borderland with Bohemia and Austria), eastern Moravia (borderland with Slovakia). Surprisingly, the belt stretching through the Moravian Gate between Kyjov and Hranice belongs also to this category.

Individual micro-regions are ordered according to the total population balance. They are divided into four basic types: [a] positive both natural balance and net migration, [b] positive natural balance and negative net migration, [c] negative natural balance and positive net migration and [d] negative both natural balance and net migration. Their geographical distribution can be seen in Fig. 5.

The micro-regions of type A with positive both natural and migration balances are situated in the surroundings of big and some medium-size cities. The type B micro-regions (which indicate to be sources of the population for central areas) are mostly in the western border of the land with some exceptions. The B type is represented least. The micro-regions of the type C where the negative natural population development is balanced with a positive net migration mostly fill the space between the main centres. The micro-regions of the D type (depopulating) can be found in the eastern, northern and south-western periphery. The geographical division of individual types can be found in Fig. 6, the respective data are in the appendix.

Of 97 rural micro-regions, 40 recorded a positive demographic development in the last 5 years whereas 57 recorded a negative one. It seems that more than half of the Moravian countryside is depopulating.

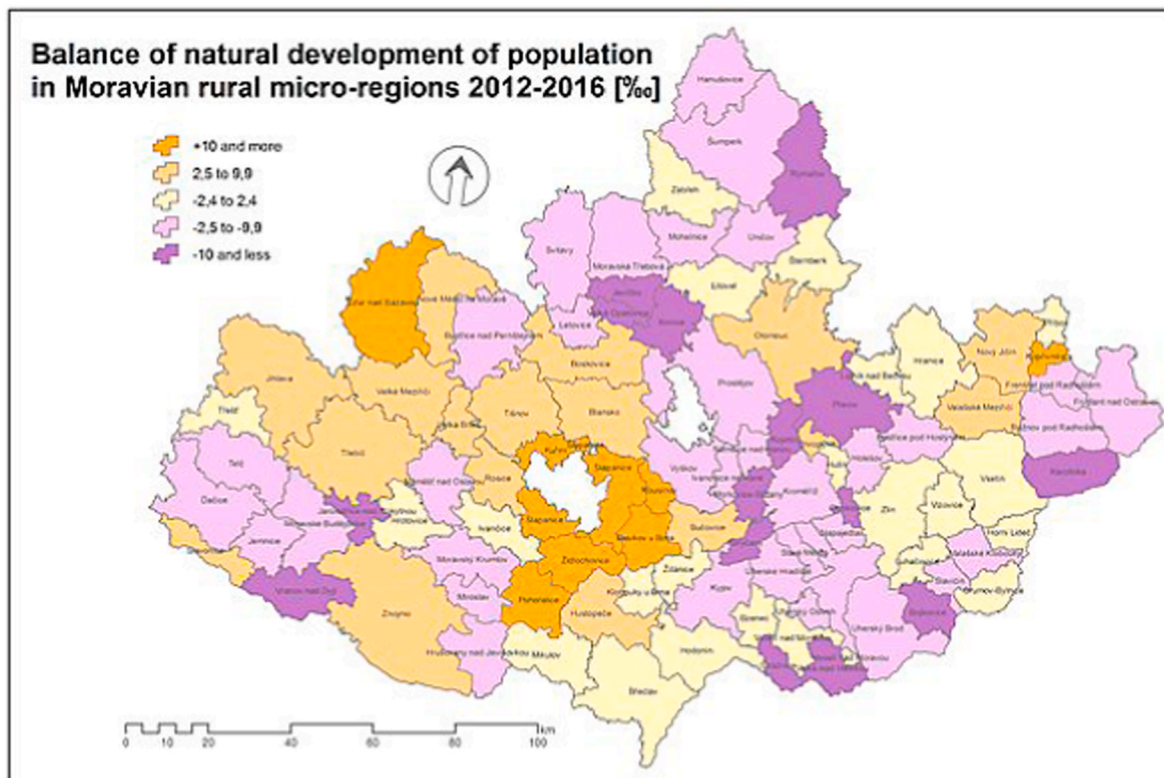


Fig. 3. Balance of natural development of the population in Moravian rural micro-regions 2012–2016. Data: Czech Statistical Office Prague. Own calculations. Drawn by E. Nováková.

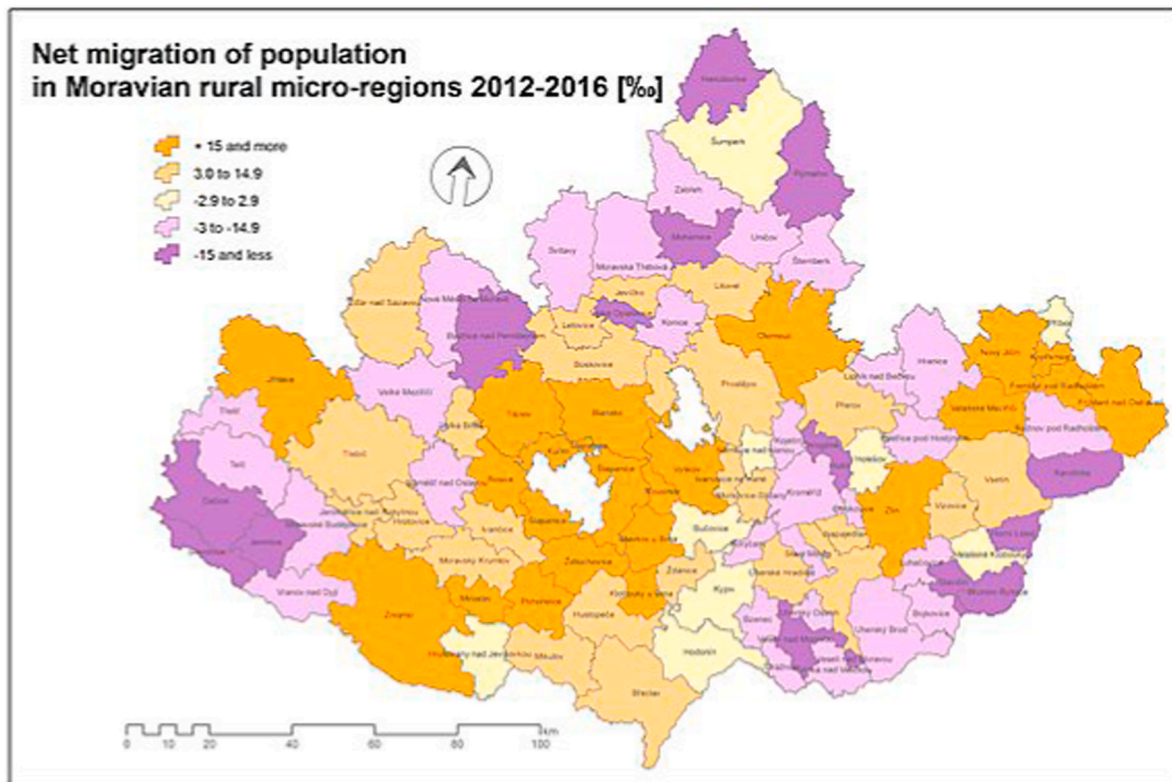


Fig. 4. The net migration of population in Moravian rural micro-regions 2012–2016. Data: Czech Statistical Office Prague. Own calculations. Drawn by E. Nováková.

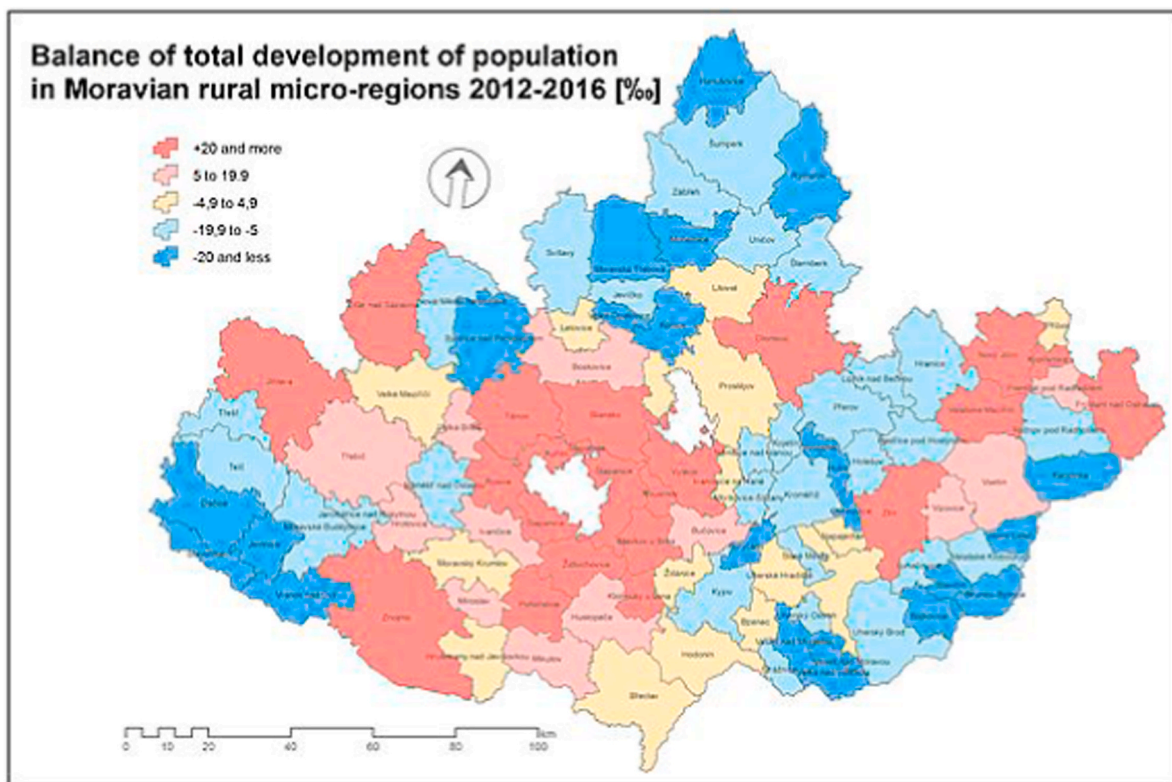


Fig. 5. Total population balance in Moravian rural micro-regions 2012–2016. Data: Czech Statistical Office Prague. Own calculations. Drawn by E. Nováková.

Going to the detail, 13 micro-regions have a stable situation (average change lower than 1% annually), whereas 14 micro-regions recorded extremely positive development (more 5% a year) and 17 micro-regions

showed an extreme population decrease (similar values).

The results of the demographic analysis were more or less expected. The Moravian countryside is not depopulating in general. We can only

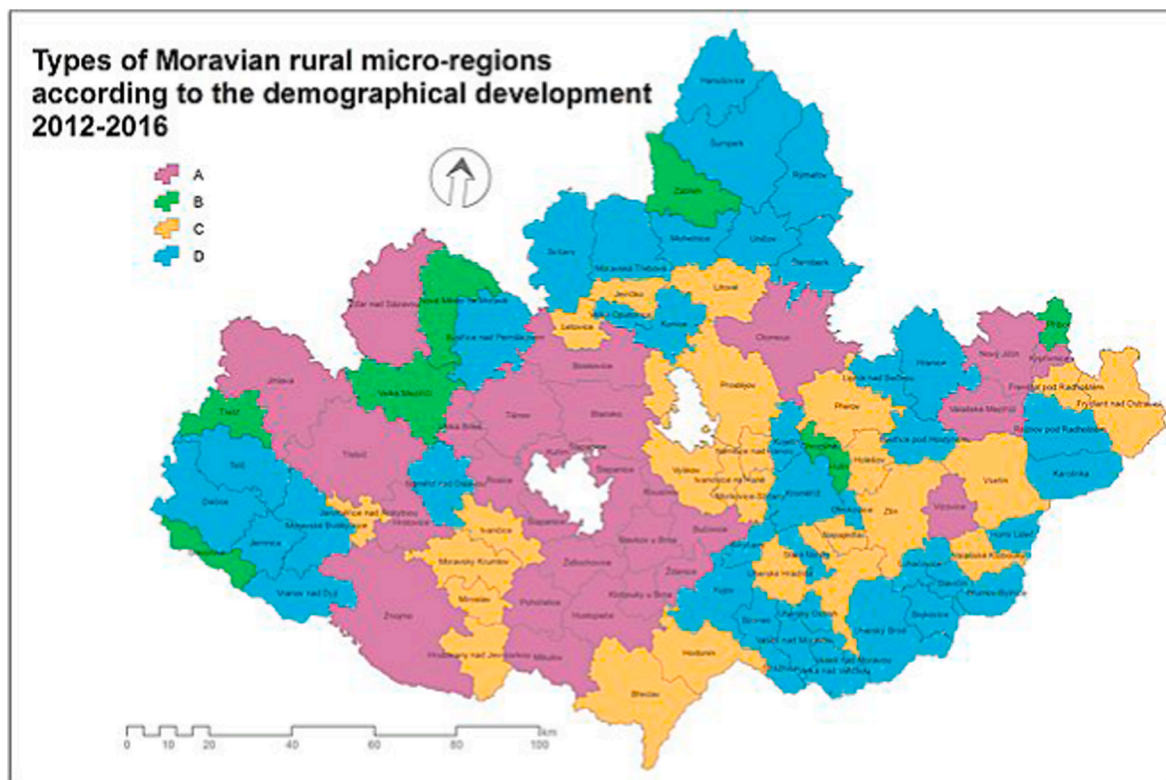


Fig. 6. Types of Moravian rural micro-regions according to the demographic development 2012–2016. Own calculations. Drawn by E. Nováková.

speak about depopulating peripheral micro-regions concentrated mostly in three parts of the Moravian territory. However, a not only geographical position can play a role in the demographic development. We will examine also the size of rural municipalities.

4.2. Population development according to the size of rural municipalities

Population development according to the size of rural municipalities is in Table 1. More or less regular relation can be observed. The smallest municipalities and small towns are losing population whereas small, medium and large villages are winners. Large villages with 1000–1999 inhabitants record the biggest population increase in the last 5 years.

The net migration is also interesting because all size categories of villages are gaining population whereas small towns lose it. The biggest migration increase recorded middle-size villages. The biggest natural population decrease can be observed by very small municipalities which is most probably the result of ageing.

This result evokes another question about the real situation in micro-regions which consist of a small town as a core and rural municipalities in the surroundings. Is it possible that the population decrease goes to the account of the core whereas the population development in its

Table 1
Population development according to the size of municipalities in 2012–2016.

Size	Number of cases	Population total	Natural balance [%]	Migration net [%]	Total balance [%]
0–199	399	52,606	-11.1	+5.9	-5.2
200–499	578	190,096	-3.3	+14.8	+11.5
500–999	485	343,971	-1.3	+17.6	+16.3
1000–1999	279	390,446	+3.7	+15.7	+19.4
2000–4999	152	443,920	0.0	+6.9	+6.9
5000–9999	36	244,296	+0.1	-4.2	-4.1
10,000–19,999	16	209,536	-4.4	-12.4	-16.8

Source: Czech Statistical Office Prague, own calculations

hinterland is positive?

All micro-regions of the D type with nuclei of 5000 to 20,000 inhabitants have been checked. In all cases, the rural part of the micro-region has a better characteristic of the population development than the micro-region as a whole including its core (the only exception being Šternberk, where the values of the indicator of the population development are the same for the core and its hinterland). The differences were mainly caused by the migration whereas the natural balance was often better in towns. It clearly shows that the population rather moves to the rural settlements which seem to be more attractive. Rural abandonment in Moravia is a myth. The rural depopulation is limited to some peripheral micro-regions and individual cases.

4.3. Rural depopulation and labour market

The rural depopulation is seemingly connected with lack of jobs in rural areas. Calculating the unemployment rate according to individual types A – D (Table 2), we concluded that unemployment does not play any role in rural depopulation. The unemployment rate in all types of micro-regions is approximately the same.

On the other side, the unemployment rate in Moravian big cities is as follows: Brno 5.6%, Ostrava 7.6% and Olomouc 4.6%. Additionally, the unemployment rate in all Moravian towns exceeding 20,000 inhabitants without any exception is higher than the unemployment rate in their hinterlands. Consequently, rural unemployment is generally lower than urban unemployment in Moravia.

Table 2
Unemployment rate according to the types of rural micro-regions.

Type	Unemployment rate	Type	Unemployment rate %
A	4.0%	B	3.9%
C	3.9%	D	4.1%

Source: Ministry of Labour and Social Affairs of the Czech Republic, own calculation

Of course, a big part of rural people is employed not in their villages but they commute to work in towns and cities. In a matter of fact, the micro-regions are integrated by this commuting. We can conclude that the place of work is no more important for the migration within the micro-regional scale. People accept the commuting on this scale.

4.4. Differences in the ageing

Indicators of the average age and the share of the population in the age of 65 years and elder are at the disposal for the characteristics of differences among Moravian micro-regions as concerns the ageing. In the sense of our intention to discover concentrations of seniors, we have used the indicator of the share of persons in the senior age. The analysis is based on the data of the Czech Statistical Office (Municipal Statistics) from December 31, 2016.

The regional differentiation of rural micro-regions according to the portions of seniors in the age of 65 and the elder is in Fig. 7. The national average is 18.8% of people in this age. It shows, that many rural micro-regions are younger. Three aspects can play their role in this differentiation: suburbanization in the vicinity of big cities, a smaller number of very small settlements in the micro-region and the borderland position, where the young structure of new settlers (after the WWII) possibly reproduces.

A distribution of seniors according to the size categories of municipalities seems to be more interesting. The differentiation has a little bit surprising logic (Table 3). The middle size villages are the youngest part of the Moravian settlement system. The shares of seniors increase at both ends. The very small villages have the biggest over-average shares of seniors. Some of the villages are threatened by ageing. Also, small towns have over-average shares of seniors. By the way, the situation in the Moravian cities with more than 50,000 inhabitants is as follows: Brno 20.2%, Ostrava 19.1%, Olomouc 19.5%, Zlín 21.3% and Jihlava 19.3%, it means that the cities have higher portions of seniors than the rural areas.

Table 3
Shares of seniors in individual size categories of rural municipalities.

Population number	Share of inhabitants 65+	Population number	Share of inhabitants 65+
0–199	20.3%	2000–4999	18.5%
200–499	18.3%	5000–9999	19.4%
500–999	17.8%	10,000–19,999	19.9%
1000–1999	17.5%		

Source: Municipal Statistics. Czech Statistical Office Praha; own calculations

5. Discussion

It is necessary to add two remarks to the data analysis. Firstly, we work with statistical data which are based on the concept of the permanent stay of people. At present, the permanent stay need not be the same as the usual stay. Many people stay elsewhere due to travelling, studying, working or simply because they have not reported a new place of their residence. So the statistical situation need not fully answer a reality. The second remark relates to the different population numbers in individual micro-regions. Depopulating micro-regions have much less population than the increasing central micro-regions as a rule. Consequently, more people live in the progressive countryside but the depopulating countryside can occupy a relatively larger territory.

To answer the question from the beginning of the article: the Moravian countryside as a whole is **not depopulating**. On the contrary, all size categories of communes with less than 5000 inhabitants have a positive net migration. Only in the very small communes, the migration increase is devalued by a higher demographic loss. It is most probably caused by ageing of the smallest settlements.

Of course, it does not mean that each rural settlement has a positive population development. Not speaking about individual cases, there are micro-regions where the countryside records a relatively high population loss. They are micro-regions in remote geographical positions,

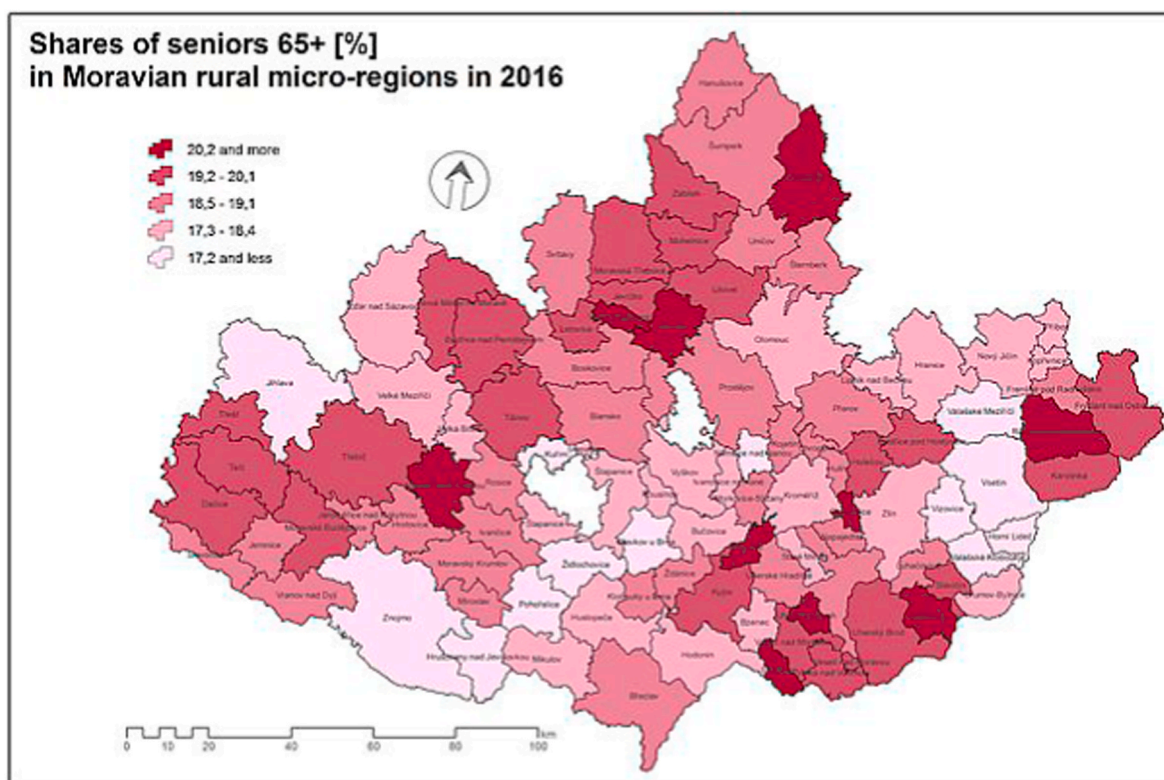


Fig. 7. Shares of seniors in the age of 65 years and more in rural micro-regions in Moravia in 2016. Source of the data: Czech Statistical Office Prague. Own elaboration.

micro-regions without any real urban core, some micro-regions in the East of Moravia (where the West-East gradient can play a role).

The decline in population at national borders and borders between Moravia and Bohemia is due to the following factors: (1) borders represent the border of the sphere of influence by national or regional metropolises, it means regions which are furthest from important centres, (2) borders are often formed by natural limits, mostly mountain ranges in the Czech case, where population density has a natural tendency to decrease, (3) in the northern and southern borders, to this are added the consequences of post-war ethnic population exchange, within it population numbers never reached pre-war levels in rural areas, Some moderation or even reversal of depopulation tendencies in the border areas have recently been signaled in connection with counter-urbanization tendencies.

Additionally, the depopulation of the countryside is not the question of insufficient jobs, in any case, jobs in the primary sector. Leaving people out of the countryside is caused by an insufficient number of prestigious and well-paid jobs, it means a limited possibility to make a career (Vaishar and Pavlů, 2018). However, the countryside is not able to offer such jobs – simply because it is in the countryside. The problem is not solvable by increasing the number of jobs in agriculture neither in tourism. The subsidies into agriculture do not contribute to rural development in this case.

The main message of this paper is running in the conclusion, that the question of whether the Moravian countryside is depopulating has hardly any sense. It is always necessary to ask which countryside. Our results show that only some rural areas are threatened by depopulation. From it follows that regional politics directed to avoiding depopulation tendencies in rural areas does not make sense in general. A selective approach should be applied.

It can be recommended that the measures should consist not in setting up new productive factories for low qualified employees but rather in improving the quality of life of the local population. The active people need both: good quality of life and well-paid jobs. However, dwellings and work could be situated in different localities. On the contrary, the people often move from the places of a concentration of jobs to the job-free settlements and commute to work. The commuting in the micro-regional scale does not impact on the residential preferences directly. However, in the case of commuting, people satisfy many of their demands on services in places where they labour while the places where the people live lose customers.

Is there any strategy for the depopulating countryside? A. Paniagua (2017) states, the basic strategy for inhabitants of depopulating rural areas is to stay. Under which condition is it possible? Political and entrepreneurial strategies are discussed by de Almeida (2017). As a rule, the development of rural tourism concerning well-kept natural beauties often under special protection is suggested as a solution (de Fortescu, 2016). However, tourism is not able to substitute the main activity in the countryside without not being massive. The problem consists in the danger, that the mass tourism would destroy the countryside (as a way of life) and ultimately to destroy itself. By the way, many attractive rural areas are situated in or close to protected areas and thus conflicts between repopulation and landscape protection can occur (see Latocha, 2013). Additionally, the jobs in tourism are on a much worse level than agriculture as concerns salaries and the prestige. Moreover, municipalities are often formed by seniors or other people living from social support. These people are not interested in any economic development in a quantitative sense, they even actively hinder development, because this is usually associated with the movement of people and goods, which these people consider to be disruptive elements. These people would certainly welcome development in a qualitative sense that would improve their standard of living, infrastructure and the availability of services.

We are sceptical of some financial support to the depopulating areas from the EU or national levels. Alonso and Masot (2017) show how mostly the most dynamic areas have received the largest amounts of

funding and these are linked to the agricultural sector and the protection of the environment, leaving aside the rural development in more depressed areas. In the case of financial support, these should be exactly targeted and possibly directed from the regional level.

Some ideas have occurred about the possible role of foreign immigrants in a limitation of rural depopulation and ageing (Collantes et al., 2014). However, the previous experience shows that the immigrants are directed preliminary into the urban milieu in the Czech conditions. Only some Slovaks, especially in the Moravian-Slovak borderland found their residences in the countryside - most probably within the mixed Czech-Slovak matrimonies. In the last time, some foreign seniors (Dutch, German) are looking for their new homes in the Moravian countryside (to connect Czech living costs with western pensions), but these individuals can hardly defend the countryside from the rural depopulation and ageing. Some foreign immigrants can be theoretically engaged in commerce and services in rural areas of mass tourism which hardly exist in the Moravian countryside though.

An eventual direction of culturally maladapted immigrants into depopulating remote rural areas would probably lead not to their adaptation but rather to the separation and ghettoization, pushing the rest of the indigenous population out. Neither in immigration friendly countries like Sweden, the experience does not show any important influence of foreign immigration on an improvement of the rural demographic situation (Hedlund et al., 2017).

On the other side, it shows that no substitution of agricultural jobs is necessary. The demographic development in the Moravian countryside is not connected with the job market. Additionally, it seems that some creation of new jobs would have negative consequences. Such jobs should accept the education level of local people; it means that they would be poorly paid. Free local working force (if any) are not interested in working for the lowest wages. Thus, the new jobs would be occupied by foreign immigrants which is not the aim.

The countryside is not able to compete with towns in the social and cultural life and high services, it is a limited place for the building of a career there. To protect from the depopulation, rural settlements have to improve those characteristics which are attractive for their inhabitants, it means the quality of life for prospective rural inhabitants (seniors, less educated people, nature lovers). It means to ensure necessary social and technical infrastructure, to support the social life and to fight against any environmental disturbance. Ageing is a natural feature which expects Europe soon. It is necessary to live with it. It could change the community life in rural municipalities seriously in a negative (see e.g. Ouređníček et al., 2011) or in a partly positive way (e.g. Heley and Jones, 2013). The economy of ageing can be seen as a prospective branch of rural economy which could partly substitute the decrease of jobs in primary branches (maybe better than the tourism).

Martínez-Filgueira et al. (2017) presuppose (in the case of Galicia) that villages with good access to regional centres can be among those who can overcome the negative development. We can add that also the size of rural settlements plays an important role. The question is, what to do with the extreme peripheral micro-regions which are really in the process of depopulation. One of the solutions is seen in using social capital (e.g. Meijer and Syssner, 2017). However, only a part of peripheral villages has a social capital sufficient for evoking some development. Sometimes existing social networks can lead to a rejection of the development and conservation of the old way of life. Villages which will not find any source of prosperity will probably gradually change into settlements of the second housing.

6. Conclusion

Although the research resulted in an expected picture as concerns the demographic development, some connections seem to be on the contrary to general beliefs - especially the fact of prevailing urban to rural migration and non-existent dependence of the demographic development on the labour market. Our investigation has also defined three

peripheral territories in Moravia, where the rural depopulation and high unemployment exist.

First two hypotheses defined at the beginning of the work were confirmed. The demographic development of the Moravian countryside is highly differentiated and individual demographic types show quite contradictory tendencies. The demographic development of rural municipalities depends on their size among others, but differently, than it was assumed – namely more positive migration development has been recorded in rural municipalities. The third hypothesis has not been confirmed. Rural municipalities (except those with less than 200 inhabitants) are mostly younger than towns and cities.

The contemporary population development of the Czech countryside is different from other East and Central European countries. It is closer to some countries in the south-western part of Europe, where it is possible to speak about a new cycle of rural development concerning the post-industrial transition approximately in the same time as in Czechia (see e.g. Collantes and Pinilla, 2011). The population growth of the majority of the Czech rural areas is combined with a rapid change of the rural labour market and with the low social importance of agriculture for rural development. In many cases, rural areas economically depend more on the industry. Rural economic activities are relatively diversified (Šimon and Bernard, 2016). According to Klufová (2016), the Moravian part of the Czech countryside is typical stable developing countryside represented mostly by larger villages and higher (rural) population density.

In general, it is necessary to substitute the experience by modern

trends (see Huning et al., 2012). The amenity migration changes the past migration for work to the migration for the well-being.

CRediT authorship contribution statement

Antonín Vaishar: Conceptualization, Methodology, Writing - original draft. **Milada Štastná:** Supervision, Writing - review & editing. **Jana Zapletalová:** Investigation, Data curation. **Eva Nováková:** Investigation, Data curation.

Declaration of competing interest

None.

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Appendix

Population development in individual Moravian micro-regions in the period of 2012–2016. Source: Czech Statistical Office Prague, own calculations.

Micro-region	Average population number	Natural balance [%]	Migration net [%]	Total balance [%]	Type
Šlapanice	64,527	15.5	58.7	74.2	A
Židlochovice	31,444	16.9	55.4	72.3	A
Pohořelice	12,528	11.7	51.6	63.3	A
Slavkov u Brna	22,324	13.8	43.9	57.7	A
Rousínov	8395	10.8	38.0	48.8	A
Tišnov	30,013	7.0	37.9	44.9	A
Rosice	24,770	4.0	36.9	40.9	A
Kuřim	22,199	15.5	25.0	40.5	A
Blansko	30,157	6.0	32.9	38.9	A
Kopřivnice	5452	10.6	28.1	38.7	A
Frýdlant nad Ostravicí	24,102	-5.4	43.1	37.7	C
Olomouc	61,129	8.1	24.0	32.1	A
Vyškov	16,295	-3.9	34.4	30.5	C
Jihlava	24,562	9.4	20.8	30.2	A
Nový Jičín	24,758	5.9	18.5	24.4	A
Klobouky u Brna	7360	1.1	22.7	23.8	A
Valašské Meziříčí	15,284	8.2	15.0	23.2	A
Žďár nad Sázavou	21,413	12.3	10.3	22.6	A
Zlín	23,751	-0.1	22.3	22.2	C
Znojmo	39,690	3.5	16.8	20.3	A
Frenštát p. Radhoštěm	19,173	-4.9	20.8	15.9	C
Boskovice	35,143	4.4	10.2	14.6	A
Hrotovice	7480	0.0	13.2	13.2	A
Třebíč	23,887	3.7	8.1	11.8	A
Vsetín	22,816	-2.0	13.8	11.8	C
Velká Bíteš	8539	4.6	6.9	11.5	A
Hustopeče	28,169	2.9	6.3	9.2	A
Mirotslav	6980	-9.6	18.8	9.2	C
Mikulov	19,295	0.1	8.0	8.1	A
Ivančice	23,896	0.0	7.5	7.5	C
Bučovice	15,705	3.8	1.7	5.5	A

(continued on next page)

¹ <https://cordis.europa.eu/project/id/870644>.

(continued)

Micro-region	Average population number	Natural balance [%]	Migration net [%]	Total balance [%]	Type
Vizovice	15,878	2.4	3.1	5.5	A
Ždánice	8517	0.0	4.6	4.6	A
Velké Meziříčí	27,355	7.6	-3.1	4.5	B
Litovel	23,748	-1.4	4.2	2.8	C
Břeclav	34,802	-1.4	3.7	2.3	C
Moravský Krumlov	15,232	-3.7	5.6	1.9	C
Letovice	10,217	-4.9	5.8	0.9	C
Hodonín	36,244	0.0	0.6	0.6	C
Prostějov	45,342	-5.4	5.9	0.5	C
Ivanovice na Hané	5707	-8.6	8.2	-0.4	C
Uherské Hradiště	44,194	-6.6	6.1	-0.5	C
Napajedla	13,571	-8.2	6.5	-1.7	C
Příbor	13,200	0.1	-2.6	-2.5	B
Hrušovany n. Jeviš.	11,544	-6.7	2.9	-3.8	C
Nové Město na Moravě	18,464	6.8	-11.9	-5.1	B
Luhačovice	11,451	0.0	-5.6	-5.6	D
Němčice nad Hanou	8669	-7.8	2.1	-5.7	C
Valašské Klobouky	11,885	-7.0	1.2	-5.8	C
Třešť	11,310	2.1	-8.0	5.9	B
Bzenec	12,136	0.0	-5.9	-5.9	D
Lipník nad Bečvou	14,900	0.0	-6.3	-6.3	D
Holešov	21,468	-8.5	1.3	-7.2	C
Rožnov p. Radhoštěm	29,736	-3.6	-3.6	-7.2	D
Morkovice-Slížany	6476	-17.4	10.2	-7.2	C
Přerov	25,421	-16.3	8.8	-7.5	C
Šumperk	36,061	-7.5	-0.1	-7.6	D
Jaroměřice n. Rokyt.	5769	-11.3	3.5	-7.8	C
Jevíčko	6643	-11.4	3.0	-8.3	C
Svitavy	14,674	-4.6	-3.7	-8.4	D
Šternberk	24,569	-1.5	-8.1	-9.6	D
Staré Město u Uh. Hr.	11,578	-2.5	-7.8	-10.3	D
Hranice	34,505	-1.4	-9.1	-10.5	D
Uherský Brod	43,048	-3.5	-7.8	-11.3	D
Náměšť nad Oslavou	13,401	-2.5	-9.3	-11.8	D
Kyjov	35,121	-9.4	-2.9	-12.3	D
Kroměříž	14,452	-3.7	-9.9	-13.6	D
Zábřeh	17,662	0.1	-14.1	-14.0	D
Uherský Ostroh	9291	-7.2	-7.7	-14.9	D
Strážnice	7432	-13.3	-4.8	-18.1	D
Telč	13,131	-6.5	-11.9	-18.4	D
Uničov	21,406	-6.7	-11.9	-18.6	D
Moravské Budějovice	16,007	-7.7	-10.9	-18.6	D
Kojetín	12,306	-14.4	-5.2	-19.6	D
Bystrice pod Hostýnem	15,677	-9.1	-10.6	-19.7	D
Mohelnice	17,338	-4.3	-15.7	-20.0	D
Otrokovice	21,096	-10.5	-11.8	-22.3	D
Moravská Třebová	20,970	-8.6	-13.7	-22.3	D
Velká nad Veličkou	8047	-11.9	-12.2	-24.1	D
Bystrice nad Pernšt.	20,160	-9.4	-15.0	-24.4	D
Veselí nad Moravou	23,214	-1.7	-24.5	-26.2	D
Slavičín	8464	-2.5	-23.7	-26.2	D
Horní Lideč	6733	-1.3	-27.0	-28.3	D
Karolinka	10,279	-13.2	-15.3	-28.5	D
Bojkovice	8654	-21.0	-7.7	-28.7	D
Chropyně	6865	5.8	-34.5	-28.7	B
Dačice	15,594	-4.2	-25.0	-29.2	D
Koryčany	4099	-25.9	-3.4	-29.3	D
Brumov-Bylnice	11,629	-1.6	-27.7	-29.3	D
Vranov nad Dyjí	5163	-16.3	-13.2	-29.5	D
Konice	10,973	-19.6	-11.8	-31.4	D
Velké Opatovice	5959	-12.3	-19.5	-31.8	D
Hulín	8,691	0.1	-32.8	-32.7	B
Jemnice	7459	-5.9	-33.2	-39.1	D
Slavonice	3741	4.3	-43.0	-39.7	D
Rýmařov	15,672	-13.7	-28.3	-42.0	D
Hanušovice	7570	-3.2	-47.3	-50.5	D

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrurstud.2020.10.044>.

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