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MIGRATION IN PRAGUE AND THE PRAGUE METROPOLITAN AREA

Summary: The text is focused on migration in the Czech Republic in the time of transformation of Czech society after 1989. Suburbanization tendencies have been on the rise since the mid 1990s in the Czech Republic. The analysis of migration shows hierarchical relations and the strengthening of a dominant position of Prague and the whole area of central Bohemia in the settlement system of the Czech Republic. The process of concentration in the metropolitan areas will continue with the dominating area in central Bohemia.

1. Introduction

Migration is an important part of regional processes. The transformation of Czech society after 1989 brought about the major social changes which had a significant impact on the development of the geographic organization of the society.

Migration is, in comparison with the natural change, more variable both regionally and with regard to time. It led to significant changes in regional development. After the fall of the obligatory decision-making system a more natural socio-economic development was applied on the basis of the attractiveness of the territory, both in terms of position towards the centre and in terms of the previous socio-economic development. These tendencies were perfectly natural responses to a long-term situation caused by centralized decision-making on economic and other activities in different regions of the Czech Republic.

Migration is a process that significantly contributes to the regional differentiation in the Czech Republic. It is quite clear that it constitutes one of the key mechanisms of development of human settlements. Migration studies then play an important role in the evaluation of transformational change in the CR after 1989 [Čermák 2005]. Nowadays, the most important trends of migration processes are strongly influenced by the creation of new forms of settlement systems. Most of this influence is felt in the process of suburbanisation, which is typical of the spatial distribution of an urbanized area. The hinterlands of big cities recorded a major population growth, since they became an attractive destination for immigrants, both from nearby and

Table 1. Number of immigrants and emigrants aged 20+ (internal migration) in and from Prague in the period 1992-2003 (annual average per 1000 inhabitants)

Administrative region	Immigrants	Emigrants	Migration balance	Migration change
Středočeský	2,82	4,70	-1,88	7,52
Jihočeský	1,12	1,07	0,05	2,19
Plzeňský	0,80	0,68	0,12	1,48
Karlovarský	1,12	0,57	0,55	1,69
Ústecký	0,99	0,90	0,09	1,89
Liberecký	1,02	0,97	0,05	1,99
Královehradecký	0,91	0,73	0,18	1,64
Pardubický	0,80	0,59	0,21	1,39
Vysočina	0,79	0,57	0,22	1,36
Jihomoravský	0,41	0,20	0,21	0,61
Olomoucký	0,46	0,22	0,24	0,68
Zlínský	0,43	0,20	0,23	0,63
Moravskoslezský	0,40	0,13	0,27	0,53
Total	12,07	11,53	0,54	23,60

Source: own research.

more distant areas as well as the determining proportion of migrants from the centre of the settlement area. The dominant example of this process in the Czech Republic is an area of the Prague agglomeration.

2. Development of Prague before the year 1990

Prague has a dominant position in the settlement system of the Czech Republic. The main reason is the historical development as virtually since its founding Prague has been both administrative and economic centre of the country.

Prague, like other European cities in the period after World War II, aged; natural growth in the interwar period was only 11 thousand people. The migration was crucial to its growth; its balance reached approximately 300 thousand people between the years 1920-1939. It was three times more compared to the period between the years 1970-1989 i.e. in the period in which the migration reached its highest positive balance [Čermák 1999]. Migration regionalization carried out on the basis of 1930 census provided Prague with the immigration background, which occupies approximately 63% of the Bohemian territory [Hampl 1982].

Table 2. Migration balance of Prague with regions of the Czech Republic in the period 1992-2003

Administrative region	Age group							Total
	20-24	25-29	30-34	35-39	40-49	50-59	60 +	
Středočeský	259	-1 757	-3343	-2 904	-5 162	-5 463	-6 665	-25 035
Jihočeský	871	1 300	220	-15	-131	-607	-1 251	387
Plzeňský	529	846	269	125	-85	-280	-629	775
Karlovarský	569	713	365	174	237	-3	-65	1 990
Ústecký	834	1 404	393	70	-183	-553	-1 108	857
Liberecký	499	663	112	-69	-100	-284	-562	259
Královehradecký	770	1 095	300	-14	-53	-268	-658	1 172
Pardubický	696	1 012	323	68	60	-127	-732	1 300
Vysočina	872	999	292	76	5	-232	-685	1 327
Jihomoravský	732	1 084	519	275	305	94	-43	2 966
Olomoucký	537	806	367	117	132	15	-86	1 888
Zlínský	466	746	245	85	109	13	-40	1 624
Moravskoslezský	1029	1 682	654	314	339	144	60	4 222
Total	8 663	10 593	716	-1 698	-4 527	-7 551	-12 464	-6 268

Source: own research.

The post-war development of Prague has been drastically affected by the preferences of socialist industrialization causing the stagnation of the development. In the 1970s, the further development of Prague was badly affected by so-called central system of settlement, in which population centres of lower order were preferred. Prague migration development was affected throughout all the post-war period up to 1989 by the deformation effects of administratively planned forms of management.

Table 3. Migration balance and migration volume among people aged 20+ (internal migration) total in and from Prague in the period 1992-2003

Period	Praha - východ		Praha - západ		Total	
	migration balance	migration change	migration balance	migration change	migration balance	migration change
1992-1994	-514	5 282	-886	5 620	-1 400	10 902
1995-1997	-1 404	5 210	-1 942	5 622	-3 346	10 832
1998-2000	-3 302	5 500	-4 941	8 019	-8 243	13 519
2001-2003	-3 732	9 060	-5 033	9 643	-8 765	18 703
1992-2003	-8 952	25 052	-12 802	28 904	-21 754	53 956

Source: own research.

Table 4. Immigrants and emigrants at the age 20+ with university education (internal interregional migration) in and from Prague in the period 1992-2003

Administrative region	Immigrants	Emigrants	Migration balance	Migration change
Středočeský	5 978	10 678	-4 700	16 656
Jihočeský	2 375	1 424	951	3 799
Plzeňský	1 415	723	692	2 138
Karlovarský	889	317	572	1 206
Ústecký	2 235	939	1 296	3 174
Liberecký	1 312	852	460	2 164
Královehradecký	1 798	842	956	2 640
Pardubický	1 514	608	906	2 122
Vysočina	1 376	539	837	1 915
Jihomoravský	1 830	652	1 178	2 482
Olomoucký	1 152	369	783	1 521
Zlínský	1 061	290	771	1 351
Moravskoslezský	2 112	416	1 696	2 528
Total	25 047	18 649	6 398	43 696

Source: own research.

The population growth of Prague was hampered due to the lack of housing construction despite its high natural attractiveness to migration. Even so, Prague's proportion on the turnover of the interregional migration within the Czech Republic increased from approximately 12% at the beginning of the 1960s to approximately 21% in the late 1980s.

3. Development of migration of Prague and the Prague metropolitan area

After 1989 there was a decrease in migration mobility in the whole Czech Republic. If we compare the numbers of immigrants, then the highest decrease was recorded in Prague, where the number of immigrants fell by more than one fourth. The decisive turnover between Prague and Central Bohemia in the directions of migration flows occurred at that period of time. It was the first time ever when Prague recorded a migratory loss towards its hinterlands and the migratory loss deepened over the following period of time. Later on, in 1994, Prague first had a negative overall balance since the beginning of this kind of measurement. It continued until 2002, but after that Prague migratory balance was positive again.

The author's detailed analyses were mainly carried out in the period 1992-2003, divided into 4 three-year periods. For those years the author had detailed information on migration issues in the Czech Republic (electronic data on all migrants). Since 2005, the Ministry of Internal Affairs has followed the migration of the Ministry of Interior, which does not provide such detailed information.

Table 5. Migration balance and migration volume among people aged 20+ (internal migration) with university education in and from Prague in the period 1992-2003

Period	Praha - východ		Praha - západ		Total	
	migration balance	migration change	migration balance	migration change	migration balance	migration change
1992-1994	-109	573	-163	639	-272	1 212
1995-1997	-217	643	-328	728	-545	1 371
1998-2000	-515	883	-1 010	1 391	-1 525	2 274
2001-2003	-798	1 254	-1 092	1 600	-1 890	2 854
1992-2003	-1 639	3 353	-2 593	4 358	-4 232	7 711

Source: own research.

Table 6. Migration balance of Prague with capital cities of regions in the years 1992-2003

Regional capital	Age group							Total
	20-24	25-29	30-34	35-39	40-49	50-59	60 +	
České Budějovice	107	199	31	22	33	-14	-103	275
Plzeň	106	218	74	57	34	14	-51	452
Karlovy Vary	133	181	106	45	58	14	14	551
Ústí nad Labem	111	211	140	58	75	32	-24	603
Liberec	168	235	87	39	60	39	-42	586
Hradec Králové	191	277	126	48	85	18	-70	675
Pardubice	136	188	100	22	46	8	-34	466
Jihlava	76	110	43	8	13	3	-18	235
Brno	306	506	321	187	236	100	71	1 727
Olomouc	98	152	63	17	43	18	-8	383
Zlín	94	167	47	8	47	4	12	379
Ostrava	240	504	187	95	108	62	45	1 241
Total	1 766	2 948	1 325	606	838	298	-208	7 573

Source: own research.

Looking at the development of migration in Prague and its nearest hinterlands, we find that migratory balance in Prague's rural districts was initially not really substantial. However, it started to grow rapidly in the second half of the 1990s. The number of emigrants from the centre into the hinterlands increased gradually and at the same time, the share of this migratory flow increased compared to the total number of emigrants from the centre. In 2002, the migration growth was 25.7 per one thousand in the district of Prague-West and 19.6 per one thousand in the district of Prague-East. In 2008, the corresponding figures for these districts were 48.5 and 58.4 per one thousand. The negative migration balance of Prague deepened even with more distant districts of the Central Bohemian region, even though not at such a rapid pace. One of the most important features of migration processes is the suburbanization migration flow out of the metropolitan area into its hinterlands. Looking at the development of Prague migration with its nearest hinterlands (the districts of Prague-West and Prague-East), we can say that there was a significant increase in the migration from Prague to its hinterlands. In case of Prague, the migration increased almost eight times between the years 1995 and 2007.

Table 7. Migration balance of Prague with capital cities of regions in the years 1992-2003 (with university education)

Regional capital	Age group							Total
	20-24	25-29	30-34	35-39	40-49	50-59	60 +	
České Budějovice	44	129	40	21	32	1	-23	244
Plzeň	33	123	49	12	8	5	-20	210
Karlovy Vary	26	99	39	14	7	1	3	189
Ústí nad Labem	38	104	72	29	16	1	5	275
Liberec	38	102	35	3	2	15	-9	186
Hradec Králové	59	168	73	18	19	-4	-14	315
Pardubice	42	115	67	18	13	-2	0	250
Jihlava	11	65	18	5	10	-2	-4	103
Brno	47	245	181	86	93	47	26	725
Olomouc	26	100	34	10	16	7	-4	189
Zlín	31	105	28	1	13	0	8	186
Ostrava	56	302	99	37	34	21	7	556
Total	451	1 657	735	254	263	90	-25	3 428

Source: own research.

Migration turnover between Prague and other regions comprised of nearly half of inter-regional migration of which there was more than half of migration between Prague and Central Bohemia. The connectivity of these two units into an organic whole of a metropolitan area can be well seen on the development of migration and commuting to work and study.

Table 8. Share of immigration and emigration among people aged 20+ (internal migration) in and from Prague in the years 1992-2003

Administrative region	Immigrants	Emigrants	Migration change
Středočeský	35,8	56,4	46,4
Jihočeský	8,1	7,2	7,6
Plzeňský	5,0	4,1	4,5
Karlovarský	3,9	1,9	2,9
Ústecký	9,4	8,1	8,7
Liberecký	5,0	4,5	4,7
Královehradecký	5,7	4,4	5,0
Pardubický	4,7	3,2	3,9
Vysočina	4,7	3,2	3,9
Jihomoravský	5,4	2,5	3,9
Olomoucký	3,4	1,5	2,4
Zlínský	2,9	1,3	2,1
Moravskoslezský	5,9	1,8	3,8
Total	100,0	100,0	100,0

Source: own research.

Migration turnover between Prague and other regions comprised of nearly half of inter-regional migration of which there was more than half of migration between Prague and Central Bohemia. The connectivity of these two units into an organic whole of a metropolitan area can be well seen on the development of migration and commuting to work and study.

In the monitored period, Prague had a positive migratory balance with all the Czech regions except for the Central Bohemian region. East-West zonality was becoming more and more significant when the positive migration balance with all Moravian region and regional cities, including Brno, increased. Despite the fact that Moravian regions are significantly farther from Prague than the Bohemian regions; Prague has greater migration efficiency with the Moravian regions than with the Bohemian regions. This supports the interpretation of the transformation success. The nearer to Prague the region is, the better the chance of transformation success is. This interpretation, of course, supports the proximity of the richest neighbours in CR.

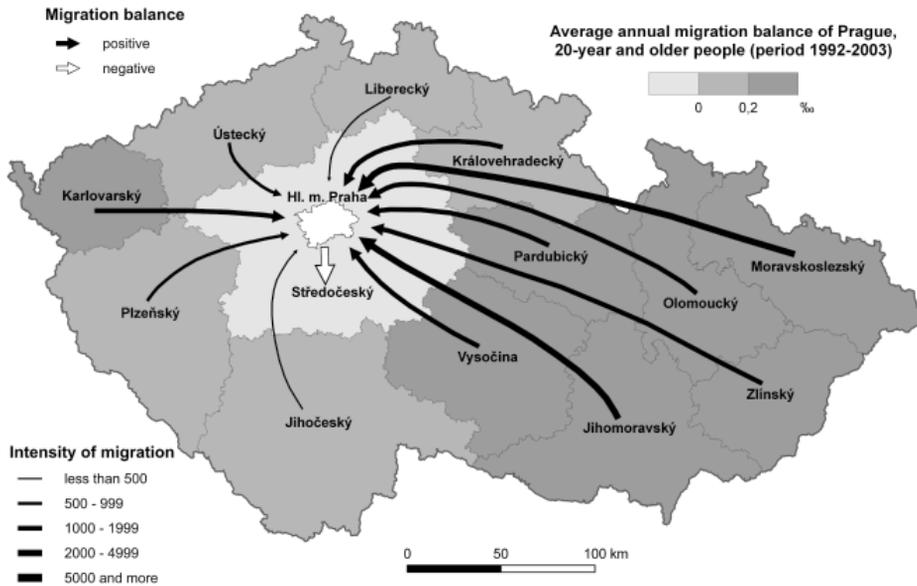


Fig. 1. Intensity of migration and migration balance among people aged 20+ in and from Prague in the years 1992-2003

Source: own research.

Prague and the Prague metropolitan area are very attractive for the middle and upper middle class. Integration into this social category is closely related to education which means that the area of Central Bohemia attracts university educated migrants from all over the country. Prague has a positive migration balance mainly due to fresh college graduates i.e. in the age groups up to 30 years of age (they make up about half of total migration of university graduates); its back areas attract university graduates already vocationally mature who want to get a higher standard of accommodation.

In 2006, there was a change in the natural change of the population of the Czech Republic. There were more births than deaths. Following the regional differences of this indicator, we find that actually migratory movements in the Czech Republic during the transformation significantly influenced these differences. Positive natural change occurred in the rural districts of Prague in 2004, but it was probably around one tenth of the natural growth in the year 2008. As we know that younger age groups significantly contribute to migration movements, it is clear that immigrants in the city hinterlands implement their reproduction. And since the process of suburbanisation and metropolitanisation of the Prague hinterland was reflected in advance of the other cities, we find there is now much higher not only natural but also overall

gain, because the value of migration growth is multiplied due to the attractiveness of Prague to other big cities in the Czech Republic.

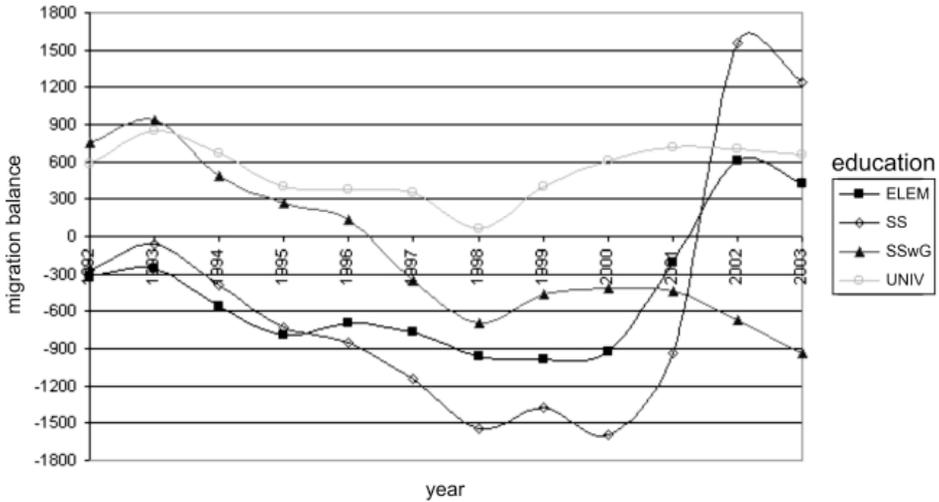


Fig. 2. Migration balance of Prague by education in the years 1992-2003

Source: own research.

The increasing proportion of university graduates on migratory movements is also very significant in the process of suburbanization. We can claim that in successful regions the transformation success brings, in addition to economic growth, statistically significant population growth, as evidenced by the analysis of rural districts of Prague.

4. Impact of international migration on population growth of the Prague metropolitan area

In recent years, we noticed the growth of attractiveness of the biggest cities. These are attractive both for foreign migrants and domestic migration. With the growing numbers of foreigners their growing proportion to the national migration also increases. In 2007, 43 thousand foreigners changed their place of residence within the Czech Republic, which is 17% of the total volume of internal migration. The Ukrainians have the largest share of the internal migration of foreigners (about 54%).

In 2007, nearly a third of foreigners moved to Prague, 16% to the Central Bohemian Region. The decisive factors for immigration were economic reasons along with working opportunities in the Czech Republic. The decisive factors for immigration were economic reasons associated with working opportunities in the Czech Republic. At present (figures for 2008), foreigners make almost 4% of the population of

the Czech Republic. In 2007, the highest ever balance of migration was recorded and it counted almost 84 thousand people.

The development of housing construction was crucial to the improvement of the dynamics of population development. This development is dominated by the Prague metropolitan area where inhabitants showed significantly increased purchasing power allowing a significant increase in residential construction, which was further supported by the easy availability of mortgages.

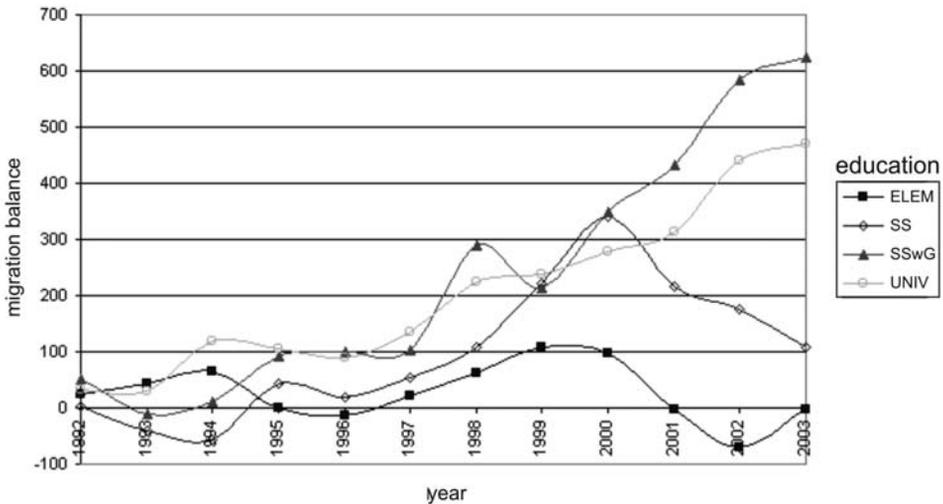


Fig. 3. Migration balance of the district of Prague-East by education in the years 1992-2003

Source: own research.

By looking at the population development of metropolitan areas in the years after 2000, we find that international migration was a crucial element of population growth there. Prague metropolitan area gained international migration of more than 46 thousand people between the years 2002-2006.

All 11 metropolitan areas identified in the Czech Republic gained international migration of approximately 70 thousand people [Čermák, Hampl, Muller 2009]. The above mentioned facts can be supported by the growing proportion of the total number of new dwellings built in the years 2001-2007, when the proportion of the Prague metropolitan area increased from 17.3% to 32.7% of all completed dwellings. In Prague, the number of completed dwellings increased more than three times, in its suburbs, then, more than 4 times.

Data of the employment of foreigners and data of residence permits by regions of the Czech Republic are interesting as well. Overall, more than 335 thousand foreigners are employed in the Czech Republic, which is almost 6% of the total workforce in our country. The highest proportion of foreign workers across all regions is in

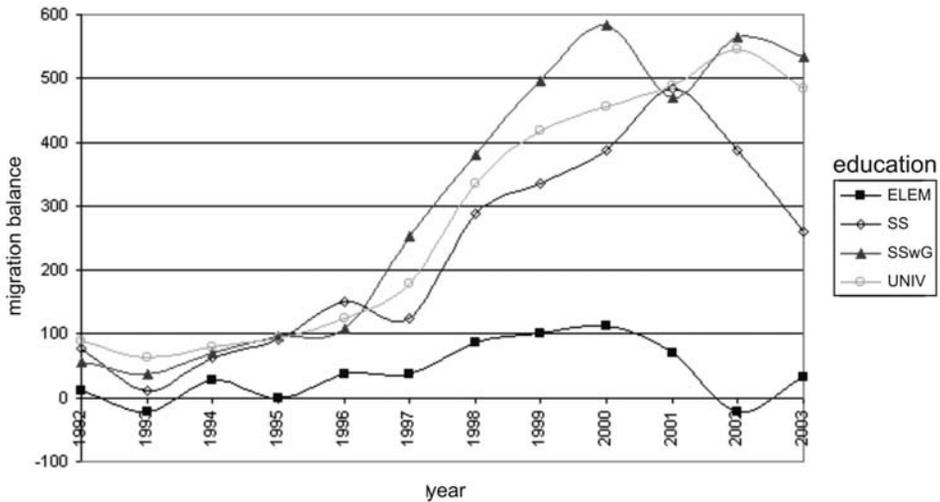


Fig. 4. Migration balance of the district of Prague-West by education in the years 1992 – 2003

Source: own research.

Prague (15.12%), then in the Central Bohemian region (7.39%). The proportion of foreign migrants exceeding 10% can also be found in the Prague-East district.

5. Conclusions

Suburbanization tendencies have been on the rise since the mid-1990s in the Czech Republic. Trends of moving into cleaner and quieter surroundings where land prices are lower and which have relatively easy access to city centres via public transport is not characteristic only for Prague, but also for Brno and Plzen and to a lesser degree for the other big centres. In the 1990s, the decentralization of metropolitan areas took place in the Czech Republic. In Western Europe, the decentralization took place in the 1960s and 1970s. Since the 1980s, though, migration flows in the Western Europe have reversed again, from hinterlands to city centres. It is likely that in the foreseeable future, this process will occur even in Czech cities, mainly in Prague [Aleš 2001].

The analysis of migration flows in the period of transformation of the Czech Republic proved that throughout the observed period after 1989 there was an increasing proportion of university educated people in total migration, especially in its balance. There is a higher “price” for educated people in the labour market and we expect further strengthening of these trends. They illustrate the analysis of hierarchical relations and the strengthening of a dominant position of Prague and the whole area of the Central Bohemia in the settlement system of the Czech Republic. This

confirms the success of the Prague metropolitan area in the transformation period. Another significant fact is the dynamic growth of the Plzeň and Brno metropolitan areas. Suburbanization processes taking place in other regions of the Czech Republic are at a lower hierarchical level. East-West zonality is more and more reflected and, as a whole, Moravian regions increase their negative balance with Bohemian regions. The dominant direction of migration is Prague and its rural districts.

In the early 1990s there was an overall decline in migratory movements and migration as a process appeared to be statistically deconcentrational. After 1995 villages over 5 thousand inhabitants had, as a whole, a negative migration balance and the population of Prague decreased by more than 33 thousand people between 1991 and 2001. After the year 2003, migration (largely thanks to foreign migration) again became a statistically-concentrating process. Between 2001-2008 Prague increased by more than 43 thousand inhabitants and is thus more populated than it was in 1991. Prague's nearest hinterlands, the defined districts of Prague-East and Prague-West, began to gain significantly in the mid-1990s. Between the years 1991-2001, the number of inhabitants increased by 12 thousand and between 2001-2008 by the additional 45 thousand. Overall, in that period, the Prague metropolitan area increased by 88 thousand inhabitants. If there is not a significant and prolonged decline in international migration due to the economic recession, the process of concentration in the metropolitan areas will continue. However, the central Bohemian area will very likely remain the dominating area.

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MIGRACJA W PRADZE I PRASKIM OBSZARZE METROPOLITALNYM

Streszczenie: Niniejszy artykuł koncentruje się na zagadnieniu migracji w Republice Czeskiej w okresie transformacji czeskiego społeczeństwa po 1989 r. Suburbanizacyjne tendencje w Republice Czeskiej wzrastają od połowy lat 90. Analiza migracji pokazała hierarchiczne związki i umocnienie dominującej pozycji Pragi oraz całego Regionu Central Bohemia w systemie osadniczym Czech. Proces koncentracji w metropolitalnych obszarach będzie trwał z dominującą pozycją centralnego obszaru kraju.