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## INTERNAL MIGRATION IN GERMANY IN 1990 AND 2005

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**ABSTRACT.** The article seeks to answer the questions concerning the possibility of identifying regular patterns within internal migration in the towns and rural areas of the Federal Republic of Germany as well as factors contributing to regional variations in the process. The research involves 439 German counties (Kreise) and compares data on internal migration in the country in the years 1991 and 2005, i.e. from its reunification until the year 2005. The 15-year period of functioning of one reunited state has been assumed sufficient for capturing some regularities and trends.

**KEY WORDS:** Federal Republic of Germany, push-pull factors hypothesis, migration, inflow, outflow, balance of migration.

### INTRODUCTION

The article seeks to answer the questions concerning the possibility of identifying regular patterns within internal migration in the towns and rural areas of the Federal Republic of Germany and factors inducing regional variations in the process.

A discussion of internal migration should not omit the basic premises underlying migration theory. Among other things, the theory states that the number of persons going a given distance is directly proportional to the number of opportunities at the distance and inversely proportional to the number of intervening opportunities (Thomas, 1938; Stouffer, 1940). The premises provide a basis for describing and analyzing migration within the framework of E.S. Lee's push-pull factors hypothesis (1966), which is one of the major concepts applied to explain migratory processes. This study of internal migration in Germany also

refers to the hypothesis. It analyses the situation of German counties (439) in the years 1991 and 2005, that is in both rural counties (*Landkreise* – 323) and towns with county status (*Kreisstädte* – 116, hereafter urban counties), and explores all internal migration occurring in Germany and on the territories of former West Germany and East Germany (western and eastern Länder).

## POPULATION INFLOW

Analysis of population inflows taking place inside Germany shows that the process changed significantly between the years 1991 and 2005. In 1991, inflows ranged from 20.0‰ to 40.0‰ in 48.3% of counties, but in 2005, the counties' proportion rose to as much as 65% of all units, i.e. 287 counties in absolute terms.

As far as the group of towns with county status (116) is concerned, the lowest intensity of migration, below 20‰, was noted in 23 units. In 2005, counties with such a low level of migration were not found – all the analyzed urban counties received over 20 persons per 1,000 inhabitants. The number of urban counties where the rate of population inflow exceeded 40.0‰ grew in the investigated period from 50 (1991) to 71 (2005) (Table 1).

On the other hand, the proportion of rural counties with population inflows between 20.0‰ and 40.0‰ increased from 169 in 1991 to 242 at the end of the period.

Generally, however, East Germany (divided into 113 counties) changed the most. Starting from 1989, the bad financial situation, the unavailability of jobs and the uncertainty of what tomorrow would bring made the East German population seek ways of improving their and their families' standard of living and move to other areas. Analyzing population inflows in all East German counties in 1991, we can see that only 5.3% of them (i.e. Potsdam and Mittelmark and the urban counties of Greifswald, Plauen, Jena, Suhl and Weimar) had inflow rates exceeding 20.0‰, because of population outflow to the western Länder. In the other counties, inflow rates were much lower. In 2005, however, inflow rates in excess of 20.0‰ were already found in as much as 63.7% of all East German counties. In the town of Greifswald, the rate was even above 60.0‰. Being an academic centre vibrant with socio-economic life, this urban county located on the Bay of Greifswald (German: Greifswalder Bodden) attracts both students and residents of the neighbouring communes.

As far as in-migration in West Germany is concerned, we need to note that inflow rates were definitely higher there. In 1991, as much as 63.2% of West German counties had the rates between 20.0‰ and 40.0‰, and in the other

32.8% they even ranged within 40.0–60.0%. In 2005, however, the proportion of the latter dropped to 19.6% of all counties, while the former increased their share (to 71.2%). In Western Germany, changes mainly occurred in rural counties and not in urban counties (Table 1).

Table 1. County rates of internal migration inflow in Germany in 1991 and 2005

Year	Rate of internal inflow (‰)		5.3 – 19.9		20.0 – 39.9		40.0 – 59.9		60.0 – 79.9		80.0 – 113.0		total	
			a	b	a	b	a	b	a	b	a	b	a	b
1991	1	N	111	25.3	212	48.3	107	24.4	8	1.8	1	0.2	439	100.0
		EG	107	94.7	6	5.3	0	0.0	0	0.0	0	0.0	113	100.0
		WG	4	1.2	206	63.2	107	32.8	8	2.5	1	0.3	326	100.0
	2	G	23	19.8	43	37.1	44	37.9	6	5.2	0	0.0	116	100.0
		EG	22	81.5	5	18.5	0	0.0	0	0.0	0	0.0	27	100.0
		WG	1	1.1	38	42.7	44	49.5	6	6.7	0	0.0	89	100.0
	3	G	88	27.3	169	52.3	63	19.5	2	0.6	1	0.3	323	100.0
		EG	85	98.8	1	1.2	0	0.0	0	0.0	0	0.0	86	100.0
		WG	3	1.3	168	70.9	63	26.6	2	0.8	1	0.4	237	100.0
2005	1	G	62	14.1	287	65.4	80	18.3	9	2.0	1	0.2	439	100.0
		EG	41	36.3	55	48.6	16	14.2	1	0.9	0	0.0	113	100.0
		WG	21	6.4	232	71.2	64	19.6	8	2.5	1	0.3	326	100.0
	2	G	0	0.0	45	38.8	62	53.4	8	6.9	1	0.9	116	100.0
		EG	0	0.0	15	55.6	11	40.7	1	3.7	0	0.0	27	100.0
		WG	0	0.0	30	33.7	51	57.3	7	7.9	1	1.1	89	100.0
	3	G	62	19.2	242	74.9	18	5.6	1	0.3	0	0.0	323	100.0
		EG	41	47.7	40	46.5	5	5.8	0	0.0	0	0.0	86	100.0
		WG	21	8.9	202	85.2	13	5.5	1	0.4	0	0.0	237	100.0

Note: 1 – all counties, 2 – urban counties, 3 – other counties, G – all Germany, EG – East Germany, WG – West Germany, a – the number of units, b – %

Source: developed by the authors based on Statistisches Landesamt Deutschland data

The spatial distribution of the rate of internal migration inflow demonstrates that in 1991 the rate's values were higher in the following areas: (1) most urban counties in southern Länder, (2) some northern counties in Schleswig-Holstein, (3) the belt of counties from the county of Ammerland in north-west to the Hannover Region and Hameln-Pyrmont in the north-western part of Lower Saxony (Niedersachsen), (4) counties surrounding the city of Munich (München), and (5) counties in west Baden-Württemberg (Fig. 1).

Higher inflow rates in some of the towns should be attributed to the very character of the settlement units that promise better living conditions and more job opportunities (Szymańska, 2007).

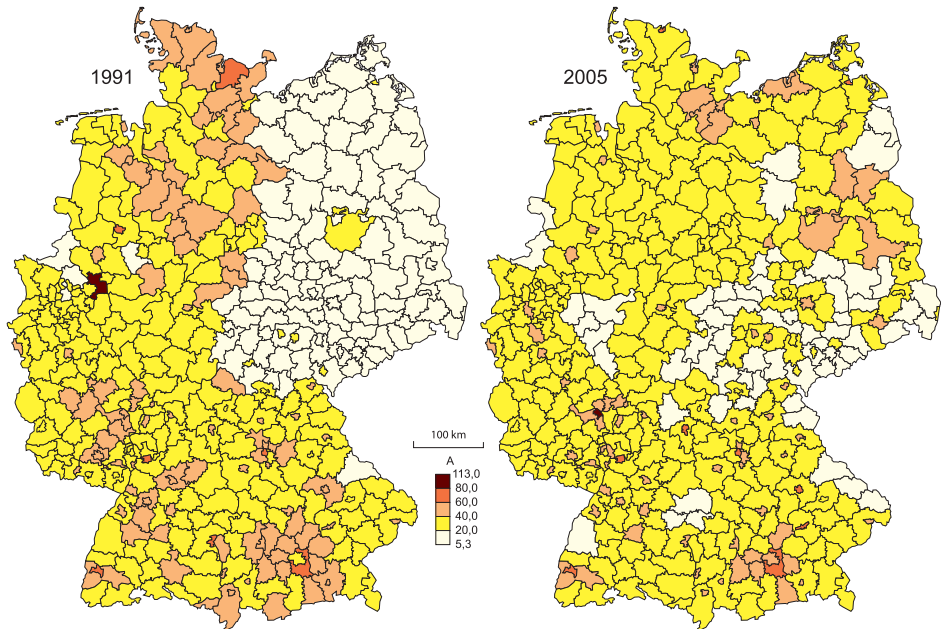


Fig. 1. County rates of internal migration inflow in Germany in 1991 and 2005

Note: A – a rate of inflow per 1,000 persons (‰)

Source: developed by the authors based on Statistisches Landesamt Deutschland data

The 1991 in-migration was high (above 40.0‰) also in counties situated in dynamically developing regions that offered good employment opportunities to movers coming mostly from East Germany. A good example of such regions has been, and still is, the southern part of Bavaria (Bayern).

Analysis of population inflows realised in 2005 shows that a definite majority of the studied counties had inflow rates exceeding 20.0‰ (85.9% of their total number).

## POPULATION OUTFLOW

In both the first (1991) and last (2005) year of the examined period, the rates of internal migration inflow did not exceed 30.0‰ in most counties (56.5% of all counties in 1991 and 52.9% in 2005). Between 1991 and 2005 the proportion of urban counties with outflows within 30.0–60.0‰ increased in that group of counties from 76 (65.5% of their total number) to 93 (80.2%), (Table 2).

In 1991, as much as 76.1% of all East German counties had outflow rates between 15.5 and 30.0‰ and another 23% within 30.0–60.0‰. In 2005, however,

the 30.0–60.0‰ range occurred in as much as 50.4% of the counties, while the first group's share went down to 49.6%. In absolute terms, the group of East German counties losing from 30–60 persons per 1000 inhabitants increased from 26 in 1991 to 57 in 2005. As regards the urban counties, in 1991 there were 15 urban counties with outflow rates below 30.0‰ in East Germany, but within the next 14 years their number fell to merely three, while the group of urban counties where outflow values ranged from 30.0 to 60.0‰ increased by half (from 12 to 24) (Table 2).

Table 2. County rates of internal migration outflows in Germany in 1991 and 2005

Year	Rate of population outflow (‰)		15.5 – 29.9		30.0 – 59.9		60.0 – 89.9		90.0 – 330.9		Total	
			a	b	a	b	a	b	a	b	a	b
1991	1	G	248	56.5	181	41.2	6	1.4	4	0.9	439	100.0
		EG	86	76.1	26	23.0	1	0.9	0	0.0	113	100.0
		WG	162	49.7	155	47.6	5	1.5	4	1.2	326	100.0
	2	G	36	31.0	76	65.5	3	2.6	1	0.9	116	100.0
		EG	15	55.6	12	44.4	0	0.0	0	0.0	27	100.0
		WG	21	23.6	64	71.9	3	3.4	1	1.1	89	100.0
	3	G	212	65.7	105	32.5	3	0.9	3	0.9	323	100.0
		EG	71	82.5	14	16.3	1	1.2	0	0.0	86	100.0
		WG	141	59.5	91	38.4	2	0.8	3	1.3	237	100.0
2005	1	G	232	52.9	202	46.0	5	1.1	0	0.0	439	100.0
		EG	56	49.6	57	50.4	0	0.0	0	0.0	113	100.0
		WG	176	54.0	145	44.5	5	1.5	0	0.0	326	100.0
	2	G	19	16.4	93	80.2	4	3.4	0	0.0	116	100.0
		EG	3	11.1	24	88.9	0	0.0	0	0.0	27	100.0
		WG	16	18.0	69	77.5	4	4.5	0	0.0	89	100.0
	3	G	213	66.0	109	33.7	1	0.3	0	0.0	323	100.0
		EG	53	61.6	33	38.4	0	0.0	0	0.0	86	100.0
		WG	160	67.5	76	32.1	1	0.4	0	0.0	237	100.0

Note: 1 – all counties, 2 – urban counties, 3 – other counties, G – all Germany, EG – East Germany, WG – West Germany, a – the number of units, b – %

Source: developed by the authors based on Statistisches Landesamt Deutschland data

On the other hand, in 1991 14 rural counties in East Germany had outflow values from 30.0 to 60.0‰, but at the end of the analyzed period there were as many as 33 of them, i.e. almost 40.0% of their total number (Table 2, Fig. 2).

In West Germany, the number of rural counties with outflow values below 30.0‰ increased in the years 1991–2005 (from 141 to 160), while the number of counties where the rates varied from 30.0 to 60.0‰ diminished (from 91 to 76).

The observed changes generally show that out-migration in West Germany was evidently even-paced and relatively equal in both 1991 and 2005, but in East Germany the 2005 outflow of internal migrants was greater than in 1991. This was particularly notable in the north-eastern parts of Mecklenburg Cispomerania (Mecklenburg Vorpommern) and in the counties encircling Berlin, where outflow rates exceeded 30.0‰ (Fig. 2).

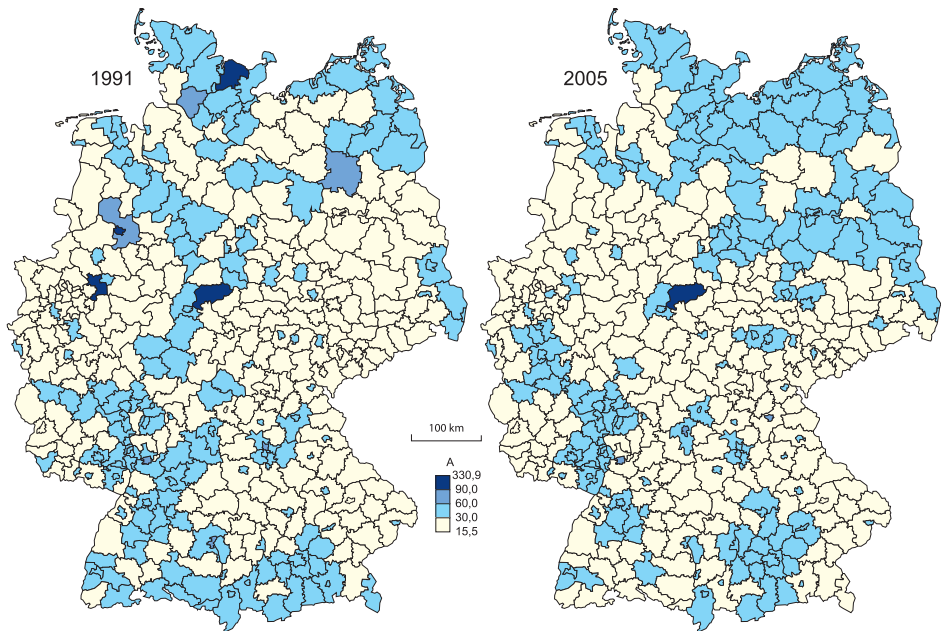


Fig. 2. County rates of internal migration outflows in Germany in 1991 and 2005  
 Note: A – outflow per 1,000 people (‰)

Source: developed by the authors based on Statistisches Landesamt Deutschland data

S. Kröhnert, F. Medicus, and R. Klingholz attribute progressing depopulation processes in northern Mecklenburg to the character of the Land that has no major industry and its economy is based on agriculture and tourism to some degree. There is a short supply of jobs in the region, especially those available to women, which forces the young population to leave it behind (Kröhnert, Medicus, Klingholz, 2007:70–77).

In Western Germany in 2005, four contiguous groups of counties with outflow rates exceeding 30.0‰ could be distinguished: (1) the counties surrounding the city of Bonn, (2) south-western Hessen (Hessen), (3) the eastern part of Rhineland-Palatinate (Rheinland-Pfalz) and the neighbouring counties of

Karlsruhe and Pforzheim, and (4) counties in Upper Bavaria. The areas are very attractive for potential immigrants and their populations show a high degree of spatial mobility.

Analysis of German out-migration does not indicate any explicit push factors. In the investigated years (1991 and 2005) both underdeveloped and developed counties experienced population outflows. To produce a more accurate picture of in-migration in Germany, the next part of the analysis will deal with the balance of internal migration.

### MIGRATION BALANCE

Analysis of internal migration balances in all German counties shows that 77 of them had balance values below  $-10.0\text{‰}$ , but that number dropped to merely 17 units by 2005. It is also worth noting that 57 counties in 1991 had migration balances above  $10.0\text{‰}$ , but fourteen years later, in 2005, such high rates were only noted in 9 units (7 urban counties, i.e. Cologne (Köln), Mainz, Landshut, Nuremberg, Dresden, Greifswald, Magdeburg, and the counties of Miesbach and Oberhavel).

As for the urban counties alone, the category of counties where internal migration balances were below  $-10.0\text{‰}$  diminished in the analyzed period (from 19 to 4). Among the rural counties, the proportion of units with migration balance between  $-0.1$  and  $-5.0\text{‰}$  increased the most, from 4.3% (14 counties) in 1991 to 34.7% (112 counties) at the end of 2005. In other words, the incoming population did not compensate for the outflow of inhabitants in every third rural county in Germany in 2005 (Table 3).

Analysing the balance of migration in East Germany we see that in 1991 as many as 69 East German counties (61.1%) had migration balance below  $-10.0\text{‰}$ , i.e. they lost more than 10 persons per 1,000 inhabitants in favour of other areas. At the end of 2005, though, the number of such units dropped to 16 (14.2%). It is worth remembering that while in 1991 Berlin was the only one to have a positive internal migration balance, fourteen years later population inflows exceeded population outflows in 18 East German counties. Nine of them were urban counties (with Magdeburg having the highest migration balance in this group –  $15.5\text{‰}$ ). As regards the group of the rural counties in 1991, the largest proportion represented those with migration balance below  $-10.0\text{‰}$  (52 counties – 60.5% of the total). In 2005, slightly more than half of the rural counties had negative migration balances (i.e. 51, making up 59% of their total number), but their values ranged then from  $-5.0$  to  $-10.0\text{‰}$ . In 2005, as many as 9 rural areas achieved positive values of migration balance. It is worth recalling here that in 1991 there was not a single rural county where the migration balance was positive.

Table 3. Internal migration balance in Germany in 1991 and 2005 by county

Year	Balance of migration (%)		-268.1 to -10.0		-5.0 to -9.9		-0.1 to -4.9		0.0 to 4.9		5.0 to 9.9		10.0 – 44.4		Total			
			a		b		a		b		a		b		a		b	
			a	b	a	b	a	b	a	b	a	b	a	b	a	b	a	b
1991	1	G	77	17.5	43	9.8	40	9.1	105	23.9	117	26.7	57	13.0	439	100.0		
		EG	69	61.1	36	31.8	7	6.2	1	0.9	0	0.0	0	0.0	113	100.0		
		WG	8	2.5	7	2.2	33	10.1	104	31.9	117	35.9	57	17.4	326	100.0		
	2	G	19	16.4	12	10.3	26	22.4	32	27.6	19	16.4	8	6.9	116	100.0		
		EG	17	63.0	7	25.9	2	7.4	1	3.7	0	0.0	0	0.0	27	100.0		
		WG	2	2.2	5	5.6	24	27.0	31	34.9	19	21.3	8	9.0	89	100.0		
	3	G	58	18.0	31	9.6	14	4.3	73	22.6	98	30.3	49	15.2	323	100.0		
		EG	52	60.5	29	33.7	5	5.8	0	0.0	0	0.0	0	0.0	86	100.0		
		WG	6	2.5	2	0.8	9	3.8	73	30.8	98	41.4	49	20.7	237	100.0		
2005	1	G	17	3.9	59	13.5	162	36.9	157	35.7	35	8.0	9	2.0	439	100.0		
		EG	16	14.2	54	47.8	25	22.1	7	6.2	7	6.2	4	3.5	113	100.0		
		WG	1	0.3	5	1.5	137	42.1	150	46.0	28	8.6	5	1.5	326	100.0		
	2	G	4	3.4	4	3.4	50	43.2	40	34.5	11	9.5	7	6.0	116	100.0		
		EG	4	14.8	3	11.1	11	40.8	4	14.8	2	7.4	3	11.1	27	100.0		
		WG	0	0.0	1	1.1	39	43.8	36	40.5	9	10.1	4	4.5	89	100.0		
	3	G	13	4.0	55	17.0	112	34.7	117	36.3	24	7.4	2	0.6	323	100.0		
		EG	12	13.9	51	59.3	14	16.3	3	3.5	5	5.8	1	1.2	86	100.0		
		WG	1	0.4	4	1.7	98	41.4	114	48.1	19	8.0	1	0.4	237	100.0		

Note: 1 – all counties, 2 – urban counties, 3 – other counties, G – all Germany, EG – East Germany, WG – West Germany, a – the number of units, b – %

Source: developed by the authors based on Statistisches Landesamt Deutschland data

Presenting separately the West German balance of internal migration, we need to note that in 1991 its values exceeded 5.0‰ in as many as 174 counties (53.3%), but in 2005 such high values were only noted in 33 counties (10.1%).

As far as the urban counties are concerned, as much as 65.2% of their total number had positive migration balances in 1991, but this proportion decreased to 55.1% in 2005. The group of urban counties where out-migrants clearly prevailed over in-migrants slightly grew (from 31 in 1991 (34.8% of their total number) to 40 in 2005 (44.9%)). It should be remembered, though, that while in 1991 seven urban counties had negative migration balances lower than -5.0‰, in 2005 only the town of Salzgitter had a balance of migration standing at -7.0‰.

As regards the rural counties, in 1991 every fifth West German county had migration balance above 10.0‰ (Table 2), but in 2005 the county of Miesbach was the only one to retain the rate's value at a similarly high level (11.1‰). This South Bavarian county lies close to the Austrian border, touching the city of Munich (München) in the north. Situated at the base of the Alps, Miesbach is an extremely attractive area, especially to young people (persons aged 30–49



years and young families with children account for the main part of the inflow). The county offers a broad range of living and social opportunities, fast transport connections to Munich, as well as other facilities (Landkreise Miesbach 2008).

The spatial distribution of internal migration balance in Germany in 1991 makes it clear that the country was divided then into two parts, according to its partition into the FRG and the GDR from before 1989. In fact, in 2005 the division was still visible (Fig. 3).

Consequently, all counties and towns with county status in the eastern Länder, excluding Berlin, had negative internal migration balances. Their values in the counties around the capital city of Germany were somewhat lower, because suburbanization started in that area only after 1990. High negative migration balances (below  $-10.0\%$ ) characterised almost all counties in Mecklenburg Cispomerania (Mecklenburg Vorpommern) as well as the belt of counties stretching from the counties of Halberstadt and Wernigerode in the west as far as the border counties in East Saxony (Spree-Neisse, Niederschlesischer Oberlausitz and Löbau-Zittau).

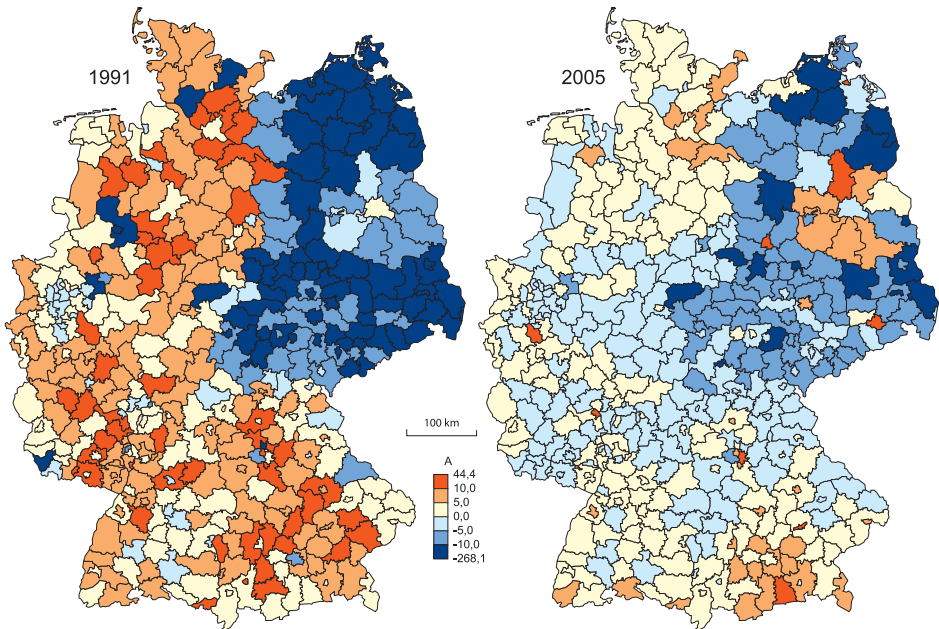


Fig. 3. Internal migration balance in Germany in 1991 and 2005 by county  
Note: A – migration balance per 1,000 persons (%)

Source: developed by the authors based on Statistisches Landesamt Deutschland data

Except for the Ruhr Basin counties, most western Länder had positive values of internal migration. The highest values were noted in the most attractive parts of Germany, where jobs and appropriate infrastructure were readily available (South Bavarian counties). In the urban counties, the balance of migration was evidently lower, because in 1999 masses of population still moved from the eastern Länder westwards, although the process became somewhat less intensive (Fig. 3).

In 2005, the stream of migrants moving from the eastern Länder towards the western parts of the country continued to dominate over the counterstream. By that time, however, some East German counties and towns with county status, mainly those surrounding Berlin (Brandenburg), had already achieved positive migration balances. Owing to their location, they constantly gain new residents. The only exception among them is the north-eastern county of Märkisch-Oderland on the Polish border.

Besides, Eastern Germany has several urban counties that initially suffered from a mass outflow (or rather flight) of their residents, but now they have revived to become attractive places for living once more, following the revitalization of the housing stock and infrastructure and many new foreign investments. This improvement is evidenced by the high, positive values of internal migration balance. In the western Länder, however, there are only single counties and towns with county status that still show positive and high values of migration balance, after the mass inflow of East Germans has ceased. This group consists of counties located near and around Munich together with some towns with county status in Bavaria (Bayern) and six counties in the northern Länder.

## CONCLUSIONS

Analysis of internal migration in Germany demonstrates that objective and subjective factors were behind the out-migration decisions in both 1991 and 2005. In the case of the East German population the economic “push factors” certainly included, in both the years, unemployment (14.4% in 1991), wage levels lower than in West Germany (in 1991, an average East German wage made up 48.9% of that paid in the western Länder (Czech-Rogosz, 2004: 97)), and insufficient infrastructure. The factors that evidently “pulled” population living in the eastern Länder ranged from the possibilities of having higher earnings and improving one’s standard of living, to personal or career development. In 1991, the factors were related to the uncertain economic situation in the eastern Länder that have been undergoing a constant process of systemic transformation. In 2005, the definite majority of counties in the eastern Länder had negative migration balances, probably due to the unsuccessful attempts at reforming the eastern

Länder that were launched after 1990. Even so, some counties in the eastern Länder managed to achieve positive internal migration balances as early as 2005. This proves that some former GDR areas were capable of seizing opportunities that a free market offers and of attracting new residents. At the same time, the positive balance of migration in the western Länder counties mainly stemmed from economic circumstances, especially in the developed Länder guaranteeing well-paid and interesting jobs, such as South Bavaria, where the balance of migration was positive and high in 2005 too.

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