

JOANNA HUK

UNIVERSITY OF WROCLAW

EFFECTIVENESS OF MIGRATION, FOR WROCLAW, FROM 1989 TO 2001

ABSTRACT. The article discusses the changes in permanent migration effectiveness for Wrocław from 1989 to 2001. The value of effectiveness coefficient includes population movement from and to Wrocław and different territorial units (other urban areas in the country, rural areas, towns in a region, rural areas in a region, and voivodeships).

KEY WORDS: internal migration, migration effectiveness, region, urban and rural areas.

INTRODUCTION

The process of European integration contributes to the growth of interest in the development of big cities in Poland, the cities, which are the central areas in economic regions. Migration is a sensitive indicator of the status quo and the changes in regional economy. Good economy in a city (or a region) contributes to their attractiveness as employment centre. People, who want to move, consider urban centres, which are economically attractive.

Considering its population, Wrocław is the fourth largest city in Poland. It is an important regional and national migration centre. Based on research results (Huk, 2002), we can conclude that, from 1994 to 1998, there was growing interest in Wrocław as migration destination. The frequency of choosing Wrocław by migrants from many smaller cities in Lower Silesia grew, compared the period from 1994 to 1998, with the period from 1989 to 1993. We can ask, therefore, a question: does Wrocław also attract people from other regions in Poland? Does their interest grow? Wrocław attractiveness can be analysed according to Huk's research method (2002) and according to migration effectiveness coefficient.

This article includes the analysis of internal migration effectiveness coefficient in general, and different partial effectiveness coefficients, based on the data from Wrocław. Partial coefficients are connected with effectiveness of migration from and to Wrocław, and 1) other urban areas in the region of Lower Silesia, 2) other urban areas in Poland, 3) rural areas in the region, 4) other rural areas in the country, 5) urban areas in other voivodeships (administrative regions of the 1st order), 6) selected big cities. Points 1 to 5 include effectiveness dynamics from 1989 to 2001, point 6, because of insufficient data, includes the period from 1989 to 1998.

Migration effectiveness coefficient for territorial unit A, which is related with a B unit, is shown as $W = (I - E)/(I + E)$, where I is an inflow to A from B, E is an outflow from A to B, in a given period of time. The numerator in that equation includes net migration for A, and the denominator includes turnover migration between A and B. The value of that coefficient is positive, when net migration is positive, and negative in diametrically different situation. Often, the coefficient is given in % (Rykiel and Żurkowa, 1981; Runge and Kłosowski, 2000; Michalski and Szafrńska, 2000; Huk, 2003). For the purpose of this research, we established the effectiveness as low, when $|W| < 20\%$, as average, when $20\% \leq |W| \leq 40\%$ and, as big, when $|W| > 40\%$.

THE EFFECTIVENESS OF MIGRANT MOVEMENTS FROM/TO WROCLAW AND LOWER SILESIA, AND WROCLAW AND OTHER REGIONS IN POLAND, COMPARED WITH THE EFFECTIVENESS OF MIGRATION IN GENERAL

In 1989, when many important political, social and economic changes started in Poland, there was a significant inflow and outflow of migrants in Wrocław. The number of migrants was significantly higher than in the following years. In 1989, there were 8,719 new permanent residents who registered in Wrocław's resident registration offices. They came from other parts of the country. In the following years, the average number of registered new residents who came from Poland was 5,530. In 2000, there were only 4,677 people (the lowest number of newcomers registered in the research period of time). In 1989 the outflow was 5,312 people (the number doesn't include people who went abroad), and in the following years, the average outflow was 4,218 people. The lowest registered outflow was in 1995: 3,813 people.

In general, the effectiveness of migration in Wrocław was, in the entire research period, positive, and was rather low, except in 1989 and 1993 (Fig. 1). There were significant differences between migrant exchange from/to urban and rural areas. Before 1993, the effectiveness of migrant movements between Wrocław and rural areas had been positive, and bigger than the effectiveness of migrant exchange between Wrocław and all other cities in Poland. From 1993 to

1998, the exchange was positive, but the relationship between the two partial coefficient was reverse. Starting in 1997, Wrocław had negative net migration exchange with rural areas, but the effectiveness of exchange, as to absolute value, was lower than with urban areas (Fig. 1).

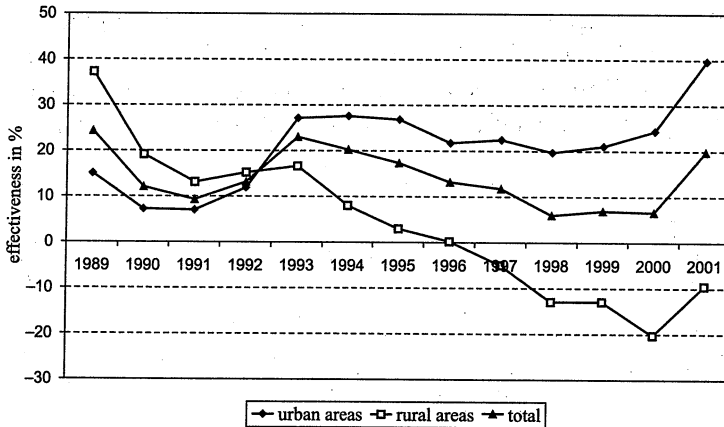


Fig. 1. Migration effectiveness in relations: Wrocław – urban areas, Wrocław – rural areas, and Wrocław – total urban and rural areas, from 1989 to 2001

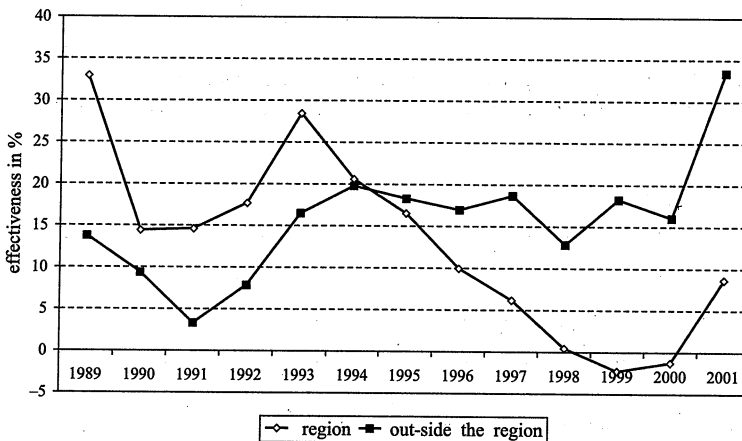


Fig. 2. The values of the partial coefficients of migration effectiveness, including the exchange between Wrocław and the region, and the rest of Poland, from 1989 to 2001

The coefficient of migration effectiveness was influenced by different regional and other national migration. From 1989 to 1994, the value of partial coefficient effectiveness, regarding migrants between Wrocław and Lower Silesia, was positive and bigger than positive values of the coefficient, which inclu-

ded the exchange with the rest of the country (Fig. 2). From 1995 to 2000, the significance of regional migration was diminishing. In 1999, and 2000, net migration was negative, and the effectiveness was very low. In 1999 and 2000, migration effectiveness from/to Wrocław and the rest of Poland was, on the average, at 17% level. In 2001, net migration exchange between Wrocław and Lower Silesia was again positive, and the effectiveness of migration significantly increased, both regional and other national (Fig. 2). It may indicate growing attractiveness of Wrocław, and/or, it may only be a transient tendency, which includes the growth of coefficient values considered in our research.

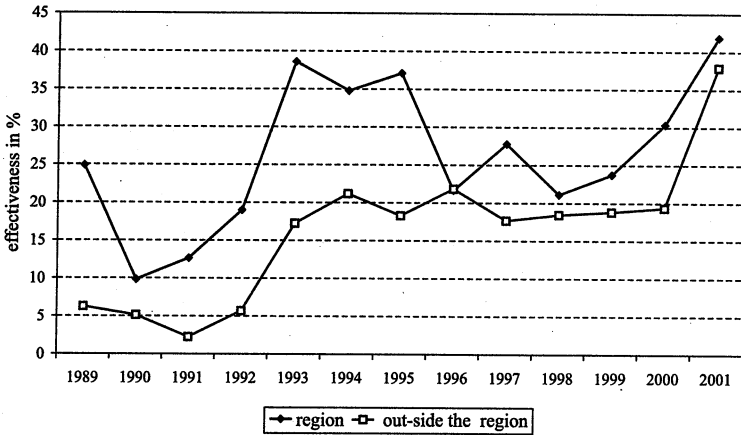


Fig. 3. The values of partial migration effectiveness coefficients regarding migrant exchange between Wrocław and urban areas in the region, and other urban areas in Poland, from 1989 to 2001

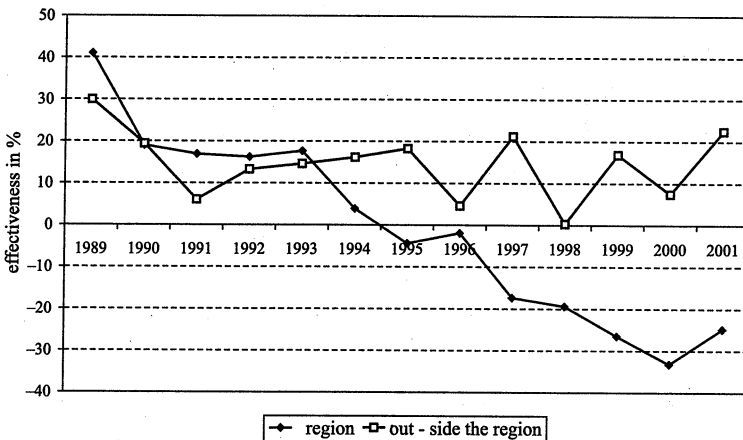


Fig. 4. The values of partial coefficients of migration effectiveness for the exchange between Wrocław and rural areas in the region, and other rural areas in Poland

The effectiveness of migration exchange between Wrocław and other urban areas in the region of Lower Silesia, in the entire period of time, which we considered in our research, was bigger than the exchange between Wrocław and other urban areas in Poland (Fig. 3). The values of both partial effectiveness coefficients, shown in Fig. 3, have similar change patterns, and average difference for the period from 1996 to 2001 is significantly smaller than for the period from 1989 to 1995. The exchange of migrants between Wrocław and rural areas in Poland is different (Fig. 4). From 1995, the effectiveness regarding the first situation, was negative and growing, and, regarding the second situation (in the entire period of time), it was positive, starting in 1995, and it oscillated around the average of 13%.

Comparing (Fig. 1 & 4) we should notice that the migration exchange between Wrocław and all rural areas in Poland (Fig. 1) isn't significantly influenced by migration exchange between Wrocław and rural areas out-side Lower Silesia (Fig. 4). Both the changes of participation of the inflow to Wrocław from rural areas out-side the region, and the outflow to those areas, don't follow any significant increase and decrease trends; the values of that participation aren't big (from 11 to 15%), and average participation differs only by 0.11%.

The changes of migrant movement effectiveness between Wrocław and the areas out-side of Lower Silesia follow the same pattern as the changes of the partial coefficient of super-regional exchange between urban areas out-side of these regions (comparing the curve "country", Fig. 2, and the "country urban areas", Fig. 3). The average from absolute value differences of the coefficients is 2.8%, and the maximum difference, observed in 1989, is 7.5.

THE EFFECTIVENESS OF MIGRANT EXCHANGE BETWEEN WROCLAW AND URBAN AREAS IN OTHER PROVINCES IN POLAND

The data regarding migrant exchange between Wrocław and other regions in Poland aren't complete. Therefore, we included in my research the information regarding movements between Wrocław and urban areas in other voivodeships. The last paragraph in the previous chapter of the text suggested that the results of the analysis discussed in this part of the text aren't significantly different from the results, which would have been obtained if we had included the data regarding migrant movement between Wrocław and rural areas of the voivodeships.

Spatial differentiation of migrant movement effectiveness from 1989 to 2001 between Wrocław and urban areas in different voivodeships is shown in Fig. 5. Only in two voivodeships (Mazowieckie and Pomorskie), there was a small negative exchange effectiveness. Fifty percent of other voivodeships had low positive exchange effectiveness. The effectiveness in Lubuskie, Świętokrzyskie, Opolskie, Podkarpackie, Lubelskie, Łódzkie, and Dolnośląskie voivodeships was average, 20 to 40%.

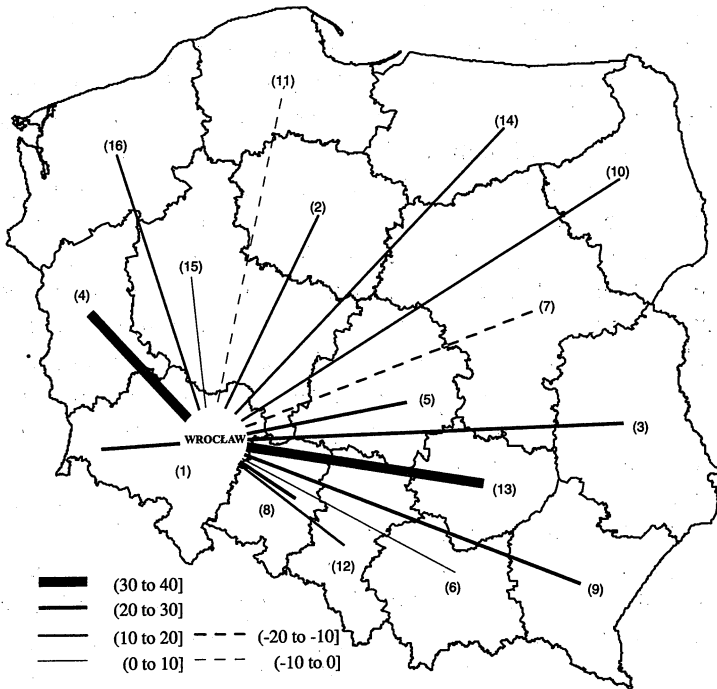


Fig. 5. The effectiveness of migrant exchange between Wrocław and urban areas in voivodeships, from 1989 to 2001, in % (names of voivodeships in Table 1)

Almost the same migrant exchange effectiveness values are between Wrocław and Lubuskie (35.8%), and Świętokrzyskie (35.5%) voivodeship, and they have different sources. In the first situation, net migration and migration turnover are three times bigger.

The analysis of migrant exchange trends regarding movement effectiveness between Wrocław and each voivodeship suggests that in ten voivodeships, there was a significant linear trend coefficient at alpha level $\alpha = 0.1$, and in one-sided critical area. Those provinces are listed according to decreasing absolute (gross) trend value: Świętokrzyskie (4.9), Opolskie (4.6), Śląskie (3.8), Podkarpackie (3.0), Wielkopolskie (3.0), Lubelskie (2.9), Mazowieckie (2.6), Kujawsko-Pomorskie (2.3), Łódzkie and Lubuskie (2.0). The increase of the effectiveness in all voivodeships in three periods, from 1989 to 1993, from 1994 to 1998, and from 1999 to 2001, was illustrated in Fig. 6. In the last period, which include three years, the effectiveness of migrant exchange between Wrocław and urban areas in Świętokrzyskie voivodeship increased up to 21 percentage points reaching 60% of the effectiveness. Also, the exchange between Wrocław and Opolskie, Lubuskie, and Lubelskie voivodeships, was very significant.

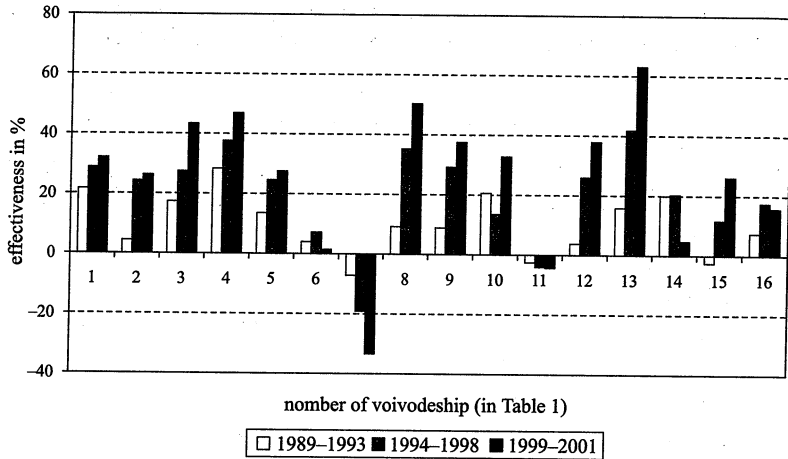


Fig. 6. The effectiveness of migrant exchange between Wrocław and urban areas in each voivodeship in three time periods

MIGRATION EFFECTIVENESS IN RELATIONS: WROCLAW – BIG CITY

The changes in migrant movement effectiveness between Wrocław and selected urban areas were only compared in periods from 1989 to 1993 and from 1994 to 1998, because there were no data available regarding the period from 1999 to 2001. The analysis included big cities, which are the seats of voivodeship governments and self-governing administrative units. In 13 voivodeships, excluding Dolnośląskie, both province and self governing administrative units are located in the same cities. In Lubuskie and Kujawsko-Pomorskie, different governments are located in different cities.

The effectiveness of migration for Wrocław from 1994 to 1998 in relations between Wrocław and five urban areas (Warszawa, Kraków, Poznań, Gdańsk and Szczecin) was negative, and it was positive with other cities (Table 1). The effectiveness is bigger, when compared with the period from 1989 to 1993, between Wrocław and Warszawa, Kraków, and there was a decrease in exchange between Wrocław and Poznań, Gdańsk. The effectiveness of exchange with Szczecin was positive (12%), but later, it became negative (-4.3%). The exchange effectiveness with Łódź in both periods was very small and positive (Table 1). There was a big increase of positive exchange effectiveness with the second period between Wrocław and Opole, Wrocław and Kielce. From 1989 to 1993, there was a negative exchange effectiveness between Wrocław, and Rzeszów, Katowice, Olsztyn, Bydgoszcz, Białystok. It was positive and much bigger in the second period.

Table 1. The values of effectiveness coefficient in % regarding migrant movements between Wrocław and selected urban areas (with voivodeship governments and self-governing administrative units)

VOIVODESHIP		CITY	EFFECTIVENESS COEFFICIENT	
No.	NAME		1989-1993	1994-1998
Voivodeship of:				
1	Dolnośląskie	Wrocław	-	-
2	Kujawsko-Pomorskie	Bydgoszcz	-14.00	15.38
	Kujawsko-Pomorskie	Toruń	16.52	30.77
3	Lubelskie	Lublin	12.08	14.5
4	Lubuskie	Zielona Góra	6.34	20.38
	Lubuskie	Gorzów Wielkopolski	23.87	34.51
5	Łódzkie	Łódź	6.74	2.31
6	Małopolskie	Kraków	-2.04	-21.32
7	Mazowieckie	Warszawa	-19.02	-35.87
8	Opolskie	Opole	1.18	28.64
9	Podkarpackie	Rzeszów	-8.45	35.48
10	Podlaskie	Białystok	-6.38	12.09
11	Pomorskie	Gdańsk	-17.24	-13.45
12	Śląskie	Katowice	-8.49	29.52
13	Świętokrzyskie	Kielce	11.34	48.43
14	Warmińsko-Mazurskie	Olsztyn	-16.83	19.48
15	Wielkopolskie	Poznań	-20.83	-15.38
16	Zachodniopomorskie	Szczecin	11.97	-4.31

Source: my own calculation results, based on the data from GUS

CONCLUSIONS

The effectiveness of migration from/to Wrocław, during the entire research period, was positive and low (< 20%) or average (20 to 40%). There were changes in the relations between partial coefficient effectiveness values regarding migrant exchange, including Wrocław and 1) urban and rural areas, 2) Lower Silesia and the rest of the country. There was a small positive trend in increasing two-way movement regarding Wrocław and all urban areas. Positive values were replaced by negative values because of regional migration, regarding the exchange between Wrocław and rural areas. The differences between partial coefficient values, regarding the migration between Wrocław and urban areas in Lower Silesia, and Wrocław and other urban areas in Poland, were decreasing.

National increase of Wrocław's importance as migration centre was small in the last years of the research voivodeships. Positive effectiveness of migrant exchange between Wrocław and urban areas in 11 provinces and several big cities in Poland grew. There was a change, from negative to positive, in migration effectiveness exchange values between Wrocław and Rzeszów, Katowice, Olsztyn, Bydgoszcz, Białystok (from 1989 to 1993, they were negative, and from 1994 to 1998, they were positive). Constant negative effectiveness of population exchange between Wrocław and Warszawa, Kraków, Poznań, Gdańsk decreased. Based on that steady negative effectiveness of migrant exchange, we can conclude that Wrocław should be listed as the fifth urban area on the list of migration system in Poland.

REFERENCES

- Huk, J.** 2002: Testy statystyczne w badaniach stacjonarności procesów stochastycznych opisujących zmiany prawdopodobieństw wyboru określonych kierunków migracji (na przykładzie województwa dolnośląskiego). In Rogacki, H., editor, *Możliwości i ograniczenia zastosowania metod badawczych w geografii społeczno-ekonomicznej i gospodarce przestrzennej*, Poznań: Bogucki Wydawnictwo Naukowe, pp. 99–106.
- Michalski, W., Szafrńska, E.** 2000: Wewnętrzne migracje stałe mieszkańców Łodzi w 1997 roku. In Szymańska, D., editor, *Procesy i formy ruchliwości przestrzennej ludności w okresie przemian ustrojowych*, Toruń: Uniwersytet Mikołaja Kopernika, pp. 201–216.
- Runge, J., Kłosowski, F.** 2000: Migracje ludności miast województwa śląskiego w latach 1977–1997. In Szymańska, D., editor, *Procesy i formy ruchliwości przestrzennej ludności w okresie przemian ustrojowych*, Toruń: Uniwersytet Mikołaja Kopernika, pp. 121–133.
- Rykiel, Z., Żurkowska, A.** 1981: Migracje między miastami: Systemy krajowe i regionalne. In Dziewoński, K. and Korcelli, P., editors, *Studia nad migracjami i przemianami systemu osadniczego w Polsce, Prace geograficzne Instytutu Geografii i Przestrzennego Zagospodarowania PAN*, Nr 140, PAN, pp. 138–188.

CORRESPONDENCE TO:

Joanna Huk
 Department of Social and Economic Geography
 Institute of Geography and Regional Development
 Wrocław University, Pl. Uniwersytecki 1, 50–137 Wrocław, Poland
 [e-mail: Huk@geogr.uni.wroc.pl]

