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PRZESTRZENNE ZRÓŻNICOWANIE AKTYWNOŚCI ZAWODOWEJ LUDNOŚCI NA OBSZARACH WIEJSKICH

Key words: rural areas, working population, unemployment rate, entrepreneurship

Słowa kluczowe: obszary wiejskie, aktywność zawodowa, stopa bezrobocia, przedsiębiorczość

Abstract. The study presents the results of research on the professional activity of rural inhabitants of provinces in Poland. Moreover, the spatial diversity of professional activity in the years 2003 and 2009 is compared. Research is based on the materials, "Rural areas in Poland" sourced from the Central Statistical Office (GUS). For the sake of this study, provinces are classified according to employment indicator and unemployment rate. The Pearson correlation coefficient for the unemployment rate and the rate of entrepreneurship is determined. The unemployment rate is compared with the rate of entrepreneurship in the years 2003 and 2009. The lowest rate of employment in rural areas is found to be in the provinces along the eastern border, in particular in the West Pomerania Province. These provinces are characterized by a high unemployment rate. Simultaneously, the rural areas of these regions share a high rate of entrepreneurship.

Introduction

Rural areas cover over 90% of the country and are inhabited by almost 40% of the Polish population. For this reason the problem of professional activity of rural residents is an important issue. Especially since rural areas are governed by specific conditions being the development of agriculture as well as the development of non-agricultural activities. In 2009, the entrepreneurship rate measured by the number of entities per 1000 inhabitants was almost two times lower in rural areas than in cities. [*Rural areas...* 2013].

This study presents the results of research on the professional activity of rural inhabitants of provinces in Poland. Moreover, the spatial diversity of professional activity in the years 2003 and 2009 is compared. The unemployment rate is compared with the rate of entrepreneurship in those years.

Methodology of research

The purpose of the work was the analysis of changes in the professional activity of residents in the countryside, in the spatial arrangement of provinces in 2003 and 2009. Research was based on the materials, "Rural areas in Poland" sourced from the Central Statistical Office (GUS). For the sake of the study, provinces were classified according to employment indicator and unemployment rate. Moreover, the Pearson correlation coefficient for the unemployment rate and the rate of entrepreneurship was determined. The rate of professional activity was calculated as the participation of professionally active people in the population (aged 15+). The rate of registered unemployment was measured by considering working people on private farms in agriculture (who are a civilian component of the economically active population) estimated on the basis of census results.

Research results

The average employment rate in rural areas in provinces in 2003 was 44.2%, while in 2009 it increased by more than five percentage points reaching 49.7%. These ratios vary spatially; the highest in 2003 was recorded in Lubuskie Province and in 2009 in Mazovia Province. The lowest similar values were reached in the Warmia-Masuria province and the Lower Silesia Province.

The examined provinces were classified into four groups according to the value of the employment rate:

- class 1 – a high employment rate,
- class 2 – an average employment rate,
- class 3 – a low employment rate,
- class 4 – a very low employment rate.

Table 1. The values of the employment rate and the unemployment rate between 2003 and 2009, according to provinces

Tabela 1. Wartości wskaźnika zatrudnienia i stopy bezrobocia w okresie między 2003 i 2009 rokiem, podział na województwa

Province/Województwo	Employment indicator/Wskaźnik zatrudnienia [%]		Unemployment rate/Stopa bezrobocia [%]	
	2003	2009	2003	2009
Dolnośląskie	37.2	46.2	29.1	10.3
Kujawsko-pomorskie	43.9	49.0	21.2	9.6
Lubelskie	52.1	53.3	12.0	7.8
Lubuskie	41.1	47.0	23.3	9.5
Łódzkie	48.9	53.3	17.3	6.6
Małopolskie	51.0	51.4	15.2	7.2
Mazowieckie	49.7	53.9	14.4	6.4
Opolskie	37.8	48.1	18.4	9.8
Podkarpackie	49.1	52.9	14.7	10.1
Podlaskie	50.3	52.2	10.4	4.7
Pomorskie	41.7	48.5	23.5	8.0
Śląskie	39.3	46.0	18.3	5.7
Świętokrzyskie	44.6	52.7	15.1	8.8
Warmińsko-mazurskie	38.4	46.1	25.5	8.8
Wielkopolskie	47.0	52.7	17.7	7.5
Zachodnio-pomorskie	35.1	42.4	31.0	13.2

Source/Źródło: *Rural areas in Poland*, accessed 25.03.2013

Table 2. Classes of provinces according to the rate of employment

Tabela 2. Klasyfikacja województw ze względu na wskaźnik zatrudnienia

A class of provinces/ Klasa województwa	Criterion/ Kryterium	Numerical range/ Przedział liczbowy		The size of class/Wielkość klasy	
		2003	2009	2003	2009
Class 1 – high employment rate/ Klasa 1 – wysoki wskaźnik zatrudnienia	$\max W_z; W_z + S w_z$	<52,1-49,08>	<53,9-53,2>	3	3
Class 2 – average employment rate/ Klasa 2 – średni wskaźnik zatrudnienia	$W_z + S w_z; W_z$	(49,8-44,2>	(53,2-49,7>	5	5
Class 3 – low employment rate/ Klasa 3 – niski wskaźnik zatrudnienia	$W_z; W_z - S w_z$	(44,2-38,6>	(49,7-46,2>	4	4
Class 4 – very low employment rate/ Klasa 4 – bardzo niski wskaźnik zatrudnienia	$W_z - S w_z; \min W_z$	(38,6-35,1>	(46,2-42,4>	4	4

Source: own study

Źródło: *opracowanie własne*

The criterion for including a specific group of provinces due to level of employment was the value (W_z) and a standard deviation ($S w_z$) of the employment rate (Tab. 2).

In both examined years, the Lublin Province is marked by the highest indicator of employment in rural areas, and the West Pomerania Province by the lowest. The structure of classes is the same in 2003 and 2009. In both years, five provinces achieved an average indicator of employment, and three provinces had a high indicator.

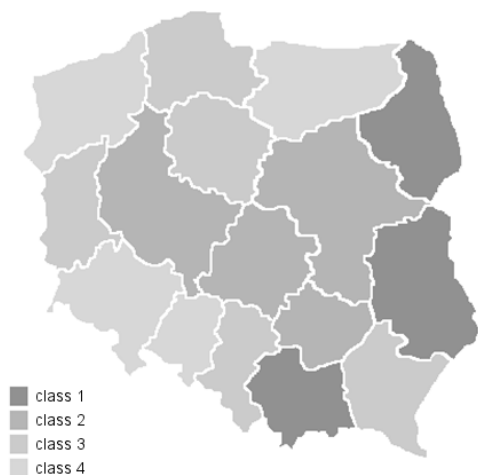


Figure 1. Spatial diversity of the employment rate in rural areas of provinces in 2003

Rysunek 1. Różnorodność przestrzenna wskaźnika zatrudnienia na wiejskich terenach województw w 2003 r.

Source: own study

Źródło: opracowanie własne



Figure 2. Spatial diversity of the employment rate in rural areas of provinces in 2009

Rysunek 2. Różnorodność przestrzenna wskaźnika zatrudnienia na wiejskich terenach województw w 2009 r.

Source: own study

Źródło: opracowanie własne

The same methodology was adopted to designate the four classes due to the value of the unemployment rate (Tab. 3).

The highest rate of unemployment in 2003 and 2009 is recorded in the West Pomerania Province. In 2009 it remained the only province in the high unemployment rate class. Significant changes can be observed in class two, which determine the average rate of unemployment. In

Table 3. Classes of the provinces according to a rate of unemployment

Tabela 3. Klasyfikacja województw ze względu na stopę bezrobocia

A class of provinces/ Klasa województwa	Criterion/ Kryterium	Numerical range/Przedział liczbowy		The size of class/Wielkość klasy	
		2003	2009	2003	2009
Class 1 – high employment rate/ Klasa 1 – wysoki wskaźnik zatrudnienia	$\max W_b ; W_b + S w_b$	<31,0- 25,1>	<13,2- 10,4>	3	1
Class 2 – average employment rate/ Klasa 2 – średni wskaźnik zatrudnienia	$W_b + S w_z ; W_z$	(25,1- 19,2>	(10,4- 8,4>	3	7
Class 3 – low employment rate/ Klasa 3 – niski wskaźnik zatrudnienia	$W_b ; W_b - S w_b$	(19,2- 13,3>	(8,4- 6,4>	8	6
Class 4 – very low employment rate/ Klasa 4 – bardzo niski wskaźnik zatrudnienia	$W_b - S w_b ; \min W_b$	(13,3- 10,4>	(6,4- 4,7>	2	2

Source: own study

Źródło: opracowanie własne



Figure 3. Spatial diversity of the unemployment rate in the rural areas of provinces in 2003

Rysunek 3. Różnorodność przestrzenna stóp bezrobocia na wiejskich terenach województw w 2003 r.

Source: own study

Źródło: opracowanie własne

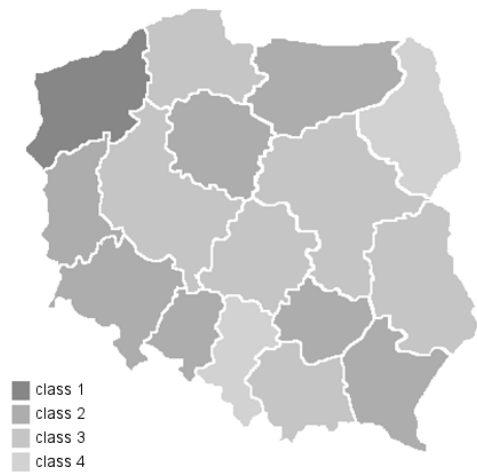


Figure 4. Spatial diversity of the unemployment rate in rural areas of provinces in 2009

Rysunek 4. Różnorodność przestrzenna stóp bezrobocia na wiejskich terenach województw w 2009 r.

Source: own study

Źródło: opracowanie własne

2009, compared to 2003, the number of provinces in this class increased to four. In both years, only two provinces were placed in the very low unemployment rate class. In 2003 these provinces were the Lublin and Podlaskie Provinces, and in 2009 the Silesia and Podlaskie Provinces.

Border provinces of western Poland are characterized by the highest unemployment rate. The West Pomerania Province is particularly hard-hit due to historically conditioned circumstances concerning political and social-economic changes. After WWII, large farms were divided into smaller ones – creating national and cooperative farms, thus reducing the share of the individual economy [Jasiulewicz 1988].

During the period of economic transformation, the liquidation of state-owned farms dramatically contributed to the occurrence of high unemployment in these areas. The high level of unemployment in this area remains a problem until this day.

Growth of entrepreneurship in rural areas constitutes the main determinant of multifunctional development of rural areas and reduces the level of unemployment in the countryside.

While analysing correlation coefficients of the rate of entrepreneurship and unemployment in 2003 and 2009, it appears that it has a positive value and amounts to 0.54 and 0.34.

Applying the same methodology as before (Tab. 2 and 3), for the years 2003 and 2009, four classes were determined according to the rate of entrepreneurship (measured by the number of business entities per 1000 inhabitants), into which rural provinces were classified.

In 2003, the West Pomerania Province was distinguished by both a high unemployment rate and a high rate of entrepreneurship. Similarly, provinces with an average unemployment rate reached a higher rate of entrepreneurship than provinces with a lower level of unemployment.

A similar phenomenon can be observed in 2009. It is worth noting that in the rural areas of the Pomeranian Province, in 2003, the unemployment rate dropped from an average rate to a low rate (third class), while the entrepreneurship rate moved up one class to the first class in 2009 from the second class in 2003.



Figure 5. Spatial diversity of the indicator of entrepreneurship in the rural areas of provinces in 2003
Rysunek 5. Różnorodność przestrzenna wskaźnika przedsiębiorczości na wiejskich terenach województw w 2003 r.

Source: own study

Źródło: opracowanie własne

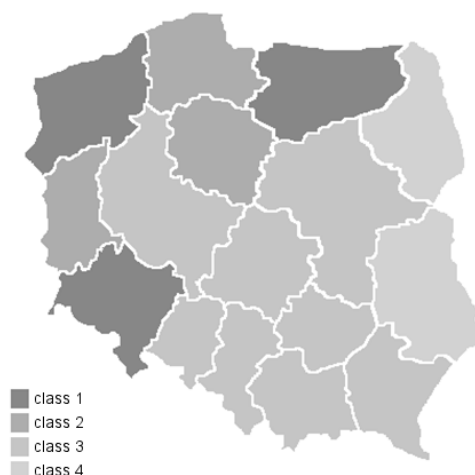


Figure 6. Spatial diversity of the indicator of entrepreneurship in rural areas of provinces in 2009
Rysunek 6. Różnorodność przestrzenna wskaźnika przedsiębiorczości na wiejskich terenach województw w 2009 r.

Source: own study

Źródło: opracowanie własne

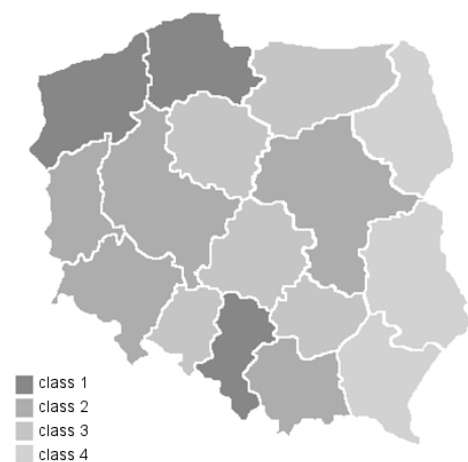


Figure 7. Spatial diversity of the indicator in rural areas of provinces in 2009

Rysunek 7. Różnorodność przestrzenna stopy bezrobocia przedsiębiorców na wiejskich terenach województw w 2009 r.

Source: own study

Źródło: opracowanie własne



Figure 8. Spatial diversity of the unemployment rate of entrepreneurship in the rural areas of provinces

Rysunek 8. Różnorodność przestrzenna wiejskich terenów województw w 2009 r.

Source: own study

Źródło: opracowanie własne

Conclusions

1. The lowest rate of employment in rural areas can be found in the provinces along the western border, in particular in the West Pomerania Province. These provinces are distinguished by a high unemployment rate. The situation is to a great extent caused by historical conditions, especially the elimination of state farms (PGR).
2. At the same time in the rural areas of these regions, there is a high rate of entrepreneurship. In both 2003 and 2009, the West Pomerania Province was classified to the first class (provinces with the highest rate of entrepreneurship in the rural areas). In 2009, the rural areas of the Pomeranian Province joined this class.
3. A positive correlation coefficient of the rate of entrepreneurship and unemployment could indicate that the areas with higher unemployment are followed by a rapid development of business however, it should be underlined that the areas of the western border have been distinguished by a higher level of entrepreneurship than the national average since 1998. [Mierosławska 2005].

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Streszczenie

Przedstawiono wyniki badań dotyczących aktywności zawodowej mieszkańców obszarów wiejskich województw, porównano zróżnicowanie przestrzenne tego zjawiska w 2003 i 2009 r. W badaniach wykorzystano materiał statystyczny GUS. Dokonano klasyfikacji województw według wskaźnika zatrudnienia i stopy bezrobocia, a także wyznaczono współczynnik korelacji Pearsona dla takich cech, jak: stopa bezrobocia i wskaźnik przedsiębiorczości. Stopę bezrobocia zestawiono ze wskaźnikiem przedsiębiorczości w badanych latach. Najniższy wskaźnik zatrudnienia na obszarach wiejskich wystąpił w województwach położonych wzdłuż wschodniej granicy, w szczególności województwo zachodniopomorskie. Województwa te wyróżniały się również wysoką stopą bezrobocia. Jednocześnie na obszarach wiejskich tych województw występuje wysoki wskaźnik przedsiębiorczości.

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