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DIVERSIFICATION OF HUMAN CAPITAL RESOURCES IN RURAL AND URBAN AREAS IN POLAND

Key words: human capital, rural areas, urban areas, spatial diversification

ABSTRACT. The aim of this paper is to estimate, as well as analyse and assess spatial diversification in human capital resources in rural and urban areas of Poland. Studies have static nature and relate to the state of the situation in 2018 year. A synthetic index of human capital resources (*IHCR*) was applied, based on which a hierarchy was developed for rural and urban areas, depending on the administrative division into provinces determining the degree of their diversification in terms of their human capital resources. Human capital resources were analysed in four categories, i.e. in terms of employment, education, entrepreneurship and unemployment, using data from the Local Data Bank CSO database. Research results indicate considerable regional (spatial) diversification of rural and urban areas. We may distinguish two homogeneous classes, including urban areas with a high level of human capital development, as well as rural areas with their low level. Moreover, there is a heterogeneous group of the so-called medium level of human capital, composed of both urban and rural areas. Particularly, observed polarization in human capital resources may in the future reduce the absorption of development impulses within both national and EU development policies.

INTRODUCTION

Considerable differences may be observed in the level of development not only between countries, but also between areas serving different socio-economic functions [Stanny 2009, 2013, 2018, Zegar 2012, Wójcik, Herbst 2012, 2013, Zaucha, Szlachta 2015, Bartnik 2016, Hozer-Koćmiel 2018]. These authors stressed that the differences in the standard of development typically do not vary from those observed in entities with a comparable level of income per capita. In socio-economic studies, it is emphasized that regions characterized by greater human capital reach higher values of other development indexes. For this reason, it is desirable to have greater human capital resources, since, to a considerable extent, this implies better prospects for future development. The quality of human capital combined with social capital determines the potential for development and competitiveness of countries and regions [MRR 2016]. In the opinion of Ewa Rokicka [2012], human capital facilitates innovativeness and promotes greater efficiency, while, at the same time, it is considered to be the most important input. In this context, it is a necessary prerequisite for the effective implementation of the Europe 2020 Strategy, as

well as the attainment of its objectives, particularly actions aiming at smart, sustainable and inclusive development [EC 2010].

Analysis of literature on the subject indicates a lack of one, generally accepted definition of human capital. In its many definitions, human capital is considered to be equivalent to education. Robert Lucas [see: Herbst 2007] defined it as the level of an employee's skills. In turn, Leszek Zienkowski [see: Herbst 2007] understood human capital as an aggregated body of knowledge of the entire society. Adam Czyżewski [2001, p. 6] perceived this capital as "the body of knowledge, health and vital energy comprised in a given society or nation". Human capital may be considered equivalent with human life, a sum of skills. It is defined as the capital composed of people with their knowledge, skills and health [Rokicka 2012]. It may be investigated both at an individual level – as characteristics of a given person, and at a community level, e.g. a region.

This analysis of human capital concerns the problem in its spatial distribution aspect. Prior to the intensification of globalization processes, competition was generally observed primarily between economic entities, while, at present, increasingly often, competition is found between territorial systems, i.e. countries, economic blocks of states, regions or cities. Thus, various spatial structures more and more frequently compete for innovative capital, which brings desirable multiplier effects and contributes to the establishment of highly qualified and well-paid jobs.

The definition of human capital has been evolving for decades, starting from the narrow approach, treating human capital in terms of outlays on education and expected future benefits. Research based on analysed evidence, undertaken in the 1960's, showed benefits resulting from a higher level of education of employees (Schultz 1963) – since accumulation of knowledge is one of the methods ensuring high income in the future [Strawiński 2009] – the extension of the schooling period (Mincer 1962) – frequently an additional year of education - results in individual income increased by approx. 5-10% [Strawiński 2009], as well as a positive dependence between the level of education (years of schooling) and future remuneration [Krueger, Lindahl 2001]. According to contemporary theories of human capital, it is people with their skills, qualifications, motivation and health that need to be perceived as the primary source of success for both companies and the entire economy [Becker 1961, Schultz 1975, Faggian, Mccann 2009]. At the same time, if the standard and quality of life in a given population and the employment rate are high and stable, such an economy may be termed as competitive. Moreover, the level of economic activity in a given region should not undermine the external balance of the economy or pose a threat to the welfare of future generations [EC 2013, 2014]. Thus, it may rightly be stated that the activity of a region and its competitiveness, to a considerable extent, depend on its human capital resources. It is stressed that this type of capital is the primary input ensuring sustainable growth [Romer 1986, 1990, Lucas 1988, Jones, Manuelli 1990, Klenow, Rodríguez-Clare 2004, Jones, Schneider 2006]. In view of the fact that rural areas in Poland account for over 90% of total area of the country [Wilkin 2007] and the share of the rural population in Poland is estimated at almost 40% (one of the highest in EU countries), it is advisable to investigate potential in terms of the division into urban and rural areas. This is particularly important, since economic data indicate that rural areas constitute the weakest element in the economic potential of Poland.

MATERIAL AND METHODS OF HUMAN CAPITAL MEASUREMENT

Analyses of human capital resources typically take the intensity of its utilization, level, quality and allocation into consideration. The most general measures of intensity of human resource use is provided by the economic activity rate and employment rate, as well as the unemployment rate. Apart from indexes describing the intensity of human resource use, it is also necessary to focus on those, which describe the standard of human resources. For this reason, the population structure is analysed in terms of the level of education and the mean years of schooling. Indexes describing the standard of skills are also used, e.g. the entrepreneurial activity rate [Rokicka 2012].

In this study, it was decided to estimate human capital in rural and urban areas, in Poland, in terms of the administrative division of the country, i.e. provinces. For this purpose, selected human capital indexes were used, describing the intensity of use of these resources, the level of these resources and the level of skills. When analysing the problem, an attempt was made to find answers to the following research questions:

– What is the status of human capital resources in rural and urban areas of Poland?
– What is the diversification of capital in investigated rural and urban areas?
– In which provinces are rural and urban areas characterized by the highest/lowest level of human capital resources?
– What is the gap between the units with the highest and lowest levels of human capital resources?

In the course of this study, the authors adopted an assumption on the existence of diversification between analysed units in terms of their human capital resources.

In order to estimate human capital (*HC*), a synthetic index of human capital resources (*IHCR*) was applied, the general form of which, for a given province in a specific time point, may be presented as [Nowak 1997]:

$$IHCR = 1/n \sum_{i=1}^{n} Wpij$$

The partial index may be estimated applying the formula:

– for the stimulant $$Wpij = \frac{Xij - min\{xij\}}{max\{xij\} - min\{xij\}}$$

– for the destimulant $$Wpij = \frac{max\ Xij - Xij}{max\{xij\} - min\{xij\}}$$

where: i – the index of the calculated partial derivative, assuming values from 1 to 4 (the number of partial derivatives), j – the index of a given province, assuming values from 1 to 16 (the number of provinces), X_{ij} – specific value of the i-th factor attained by a given rural/urban area of the j-th province in a given year, $min\ \{x_{ij}\}$ – minimum value of the i-th factor attained by a given rural/urban area of the province in a given year, $max\ \{x_{ij}\}$ – maximum value of the i-th factor attained by a given rural/urban area of the province in a given year.

Rural and urban areas were distinguished based on administrative criterion following the methodology of the CSO (Central Statistical Office). Studies have a static nature and relate to the state of the situation in 2018. In the research approach, diagnostic variables were adopted, describing three aspects of human capital:

1. intensity of resource use:
– the employment rate (X_1) – estimated as the share of employed individuals in the population aged 15 years and older;
– the economic activity rate (X_2) – estimated as the share of economically active individuals (working and unemployed) in the population aged over 15 years;
– the unemployment rate (X_3) – estimated as the share of the labour force that is unemployed.
2. the quality of human resources:
– the level of education (X_4) – described as the percentage of individuals with a higher education in the total population aged 15 years and older.
3. the level of skills:
– the entrepreneurial activity rate (X_5) – defined as the number of economic entities registered in the REGON register per 1 thousand inhabitants.

In order to determine the dependencies and strength of relationships between investigated characteristics, Pearson's correlation analysis was performed. Based on the obtained correlations between diagnostic variables, variable (X_2) was eliminated from the set, as it was found to be completely correlated with variable (X_1), with the correlation amounting to almost 98%[1].

The analysis was conducted on secondary data from the Local Data Bank's CSO database and selected literature sources on the subject concerning human capital.

A detailed list of variables and their values originally used in investigations is given in Table 1, while *IHCR* was calculated using variables X_1, X_3, X_4 and X_5. Among them variable X_3 was a destimulant, while the other variables X_1, X_4 and X_5 were stimulants.

RESULTS

The highest employment rates (Table 2) were recorded for urban areas of the Mazowieckie Province (1.0) and rural areas of the Pomorskie (0.88) and the Wielkopolskie Provinces (0.86). This means that the three above-mentioned units were leaders in the ranking in terms of the diagnostic variable (X_1), among all the other investigated administrative units. In turn, the lowest partial values of the employment index were observed for the rural areas of the Warmińsko-Mazurskie Province (0.0), while they were also low in the entire Świętokrzyskie Province, both in rural (0.28) and urban areas (0.24). Thus, it may be stated that, among all the provinces, the relatively worst situation, in the case of employment, is recorded in the entire Świętokrzyskie Province. In terms of the standard of human capital resources, based on the level of education in a respective population, a better situation was observed in urban areas compared to rural areas. This is evidenced by

[1] According to the Joy Guilford classification by correlations, the correlation between other characteristics was below levels of an almost full correlation ($0.9 < r < 1.0$), hence other features were adopted for the construction of the synthetic index.

Table 1. Values of variables used in the analysis of 2018

List of areas in individual provinces	Areas*	Employment rate	Economic activity rate	Unemployment rate	Education index	Entrepreneurial activity index
		X_1	X_2	X_3	X_4	X_5
		%				
Dolnośląskie	U	55.1	57.2	3.5	30.0	141.6
	R	55.5	58.4	5.0	15.1	86.3
Kujawsko-pomorskie	U	52.8	54.7	3.6	25.4	107.6
	R	50.8	53.9	5.8	11.2	72.0
Lubelskie	U	52.7	55.3	4.7	32.8	110.6
	R	50.5	53.9	6.3	12.9	56.5
Lubuskie	U	53.7	55.2	2.8	23.6	126.8
	R	52.2	54.0	3.3	11.9	78.6
Łódzkie	U	53.9	56.7	4.9	27.3	115.1
	R	57.6	59.0	2.7	15.1	68.6
Małopolskie	U	53.9	56.0	3.9	37.0	145.5
	R	51.5	53.8	4.3	16.1	76.1
Mazowieckie	U	59.9	61.9	3.2	42.8	182.6
	R	54.6	57.3	4.7	17.4	82.5
Opolskie	U	54.3	56.1	3.1	25.6	127.5
	R	53.5	55.6	3.7	14.1	72.5
Podkarpackie	U	52.7	55.2	4.7	32.0	109.0
	R	51.9	55.6	6.5	14.9	57.7
Podlaskie	U	54.8	56.5	2.9	30.8	102.0
	R	51.0	52.6	3.2	14.8	56.9
Pomorskie	U	55.3	57.2	3.3	32.5	143.7
	R	58.3	59.3	1.6	14.7	88.4
Śląskie	U	50.8	52.4	2.9	25.2	108.0
	R	50.7	52.1	2.7	16.1	83.8
Świętokrzyskie	U	49.9	52.1	3.9	30.0	121.2
	R	50.4	53.1	5.0	15.5	62.5
Warmińsko-mazurskie	U	51.0	53.3	4.3	23.0	104.0
	R	46.7	49.8	6.2	11.4	61.3
Wielkopolskie	U	56.0	57.8	2.9	28.3	144.1
	R	58.0	59.8	2.9	13.2	89.1
Zachodnio-pomorskie	U	52.9	54.8	3.4	26.6	145.8
	R	54.7	55.9	2.5	13.7	93.9

* U – urban areas, R – rural areas
Source: [BDL 2019]

the markedly highest values of the diagnostic variable (X_4), recorded for urban areas in the Mazowieckie (1.0), Małopolskie (0.82) and Lubelskie Provinces (0.68). High partial derivatives of *IHCR* result from the highest percentage of the population having a higher education in the total analysed population. In each of the above-mentioned provinces, in urban areas, this share was generally at least 1/3, while in the Mazowieckie Province it exceeded 40%. In turn, the lowest partial derivatives were recorded solely for selected rural areas. Relatively, the lowest level of education was found for the rural population in the Kujawsko-pomorskie (0.00), Warmińsko-mazurskie (0.01) and Lubuskie Provinces (0.02). The low values of the partial derivative in this case were determined by the lowest percentage of inhabitants having a higher education in these regions, being below 12%. Such a situation indicates that the markedly inferior level of education among the rural population, compared to the urban population, still persists.

Analysis of the level of skills in human capital, as described by the entrepreneurial activity index, indicates considerable differences between urban and rural areas. While generally urban areas may be considered privileged, as a rule, rural areas show recession in terms of entrepreneurial activity. The highest values of the entrepreneurial activity index were recorded in urban areas of the Mazowieckie (1.0) as well as the Małopolskie and Zachodniopomorskie Provinces (0.71). In turn, the lowest level of entrepreneurial activity was observed for the population of rural areas in eastern Poland, particularly the Lubelskie (0.0), Podlaskie (0.01) and the Podkarpackie Provinces (0.01). Values of partial *IHCR* derivatives are determined by the level of entrepreneurship among local inhabitants (Table 1).

Analysis of the intensity of use of human capital resources in terms of the unemployment rate (X_3) among the population indicates that, at least formally, the urban population is not privileged in relation to the rural population. This is clearly evidenced by the highest values of partial derivatives attained in some rural areas. In terms of the highest value of the partial derivative, the leaders are rural areas of the Pomorskie Province (1.0), while very high values were also recorded for rural areas in the Zachodniopomorskie (0.82) as well as the Łódzkie and Śląskie Provinces (0.78 each). In this case the highest values of partial derivatives in practice denote the lowest unemployment level among respective populations. Analysis of unemployment showed that its lowest level, which amounted to 1.6%, was actually recorded in rural areas of the Pomorskie Province (Table 1). Such a low unemployment level was not observed in any other administrative division unit, either in the group of rural areas or in the group of urban areas. The lowest values of partial derivatives for variable (X_3) were found for rural areas in the Podkarpackie (0.00), Lubelskie (0.04) and Warmińsko-mazurskie Provinces (0.06). This means that rural areas in the above-mentioned provinces are characterized by the highest unemployment rate among the population, which ranged from 6.2% to 6.5%.

Based on values of the synthetic index of human capital resources, three classes of provinces were distinguished applying the mechanical method:

– class 1, *IHCR* (0.026; 0.3237) – low level of human capital resources,
– class 2, *IHCR* (0.3237; 0.6211) – medium level of human capital resources,
– class 3, *IHCR* (0.6211; 0.9184) – high level of human capital resources.

Class 1 comprised provinces characterized by the lowest level of human capital. The synthetic index of human capital resources in this group of areas falls within the range

Table 2. Values of partial derivatives considered in the determination of the synthetic human capital index depending on province (2018)

List of areas in individual provinces	Areas	Partial derivative			
		X_1	X_3	X_4	X_5
Dolnośląskie	U	0.64	0.61	0.59	0.67
	R	0.67	0.31	0.12	0.24
Kujawsko-pomorskie	U	0.46	0.59	0.45	0.40
	R	0.31	0.14	0.00	0.12
Lubelskie	U	0.45	0.37	0.68	0.43
	R	0.29	0.04	0.05	0.00
Lubuskie	U	0.53	0.76	0.39	0.56
	R	0.42	0.65	0.02	0.17
Łódzkie	U	0.55	0.33	0.51	0.46
	R	0.83	0.78	0.12	0.10
Małopolskie	U	0.55	0.53	0.82	0.71
	R	0.36	0.45	0.16	0.16
Mazowieckie	U	1.00	0.67	1.00	1.00
	R	0.60	0.37	0.20	0.21
Opolskie	U	0.58	0.69	0.46	0.56
	R	0.52	0.57	0.09	0.13
Podkarpackie	U	0.45	0.37	0.66	0.42
	R	0.39	0.00	0.12	0.01
Podlaskie	U	0.61	0.73	0.62	0.36
	R	0.33	0.67	0.11	0.00
Pomorskie	U	0.65	0.65	0.67	0.69
	R	0.88	1.00	0.11	0.25
Śląskie	U	0.31	0.73	0.44	0.41
	R	0.30	0.78	0.16	0.22
Świętokrzyskie	U	0.24	0.53	0.59	0.51
	R	0.28	0.31	0.14	0.05
Warmińsko-mazurskie	U	0.33	0.45	0.37	0.38
	R	0.00	0.06	0.01	0.04
Wielkopolskie	U	0.70	0.73	0.54	0.69
	R	0.86	0.73	0.06	0.26
Zachodniopomorskie	U	0.47	0.63	0.49	0.71
	R	0.61	0.82	0.08	0.30

Source: own calculations based on Table 1

Table 3. Ranking of provinces depending on the synthetic index of human capital resources in 2018

List of areas in individual provinces	Areas	IHCR	List of areas in individual provinces	Areas	IHCR
Mazowieckie	U	0.9184	Łódzkie	U	0.4616
Wielkopolskie	U	0.6687	*Łódzkie*	R	0.4551
Pomorskie	U	0.6674	Zachodniopomorskie	R	0.4494
Małopolskie	U	0.6496	Warmińsko-mazurskie	U	0.3812
Dolnośląskie	U	0.6296	Śląskie	R	0.3624
Podlaskie	U	0.5823	Mazowieckie	R	0.3420
Zachodniopomorskie	U	0.5745	Dolnośląskie	R	0.3330
Opolskie	U	0.5720	Opolskie	R	0.3262
Pomorskie	R	0.5606	Lubuskie	R	0.3166
Lubuskie	U	0.5587	Małopolskie	R	0.2807
Lubelskie	U	0.4836	Podlaskie	R	0.2790
Wielkopolskie	R	0.4780	Świętokrzyskie	R	0.1925
Kujawsko-pomorskie	U	0.4770	Kujawsko-pomorskie	R	0.1440
Śląskie	U	0.4742	Podkarpackie	R	0.1301
Podkarpackie	U	0.4741	Lubelskie	R	0.0956
Świętokrzyskie	U	0.4703	Warmińsko-mazurskie	R	0.0264

Source: own calculations based on Table 2

of (0.026; 0.3237). It may be stated here that it is a homogeneous group, formed solely by rural areas of eight provinces: the Lubuskie, Małopolskie, Podlaskie, Świętokrzyskie, Kujawsko-pomorskie, Podkarpackie, Lubelskie and the Warmińsko-mazurskie.

Class 2, being the most numerous, consists of areas with a medium level of human capital. The synthetic index of human capital resources in this group of areas falls within the range of (0.3237; 0.6211). This group is not homogeneous, as it is composed of both urban and rural areas. It may be observed that, among rural areas, the highest level of human capital in this group is found in rural areas of the Pomorskie and Wielkopolskie Provinces, for which the value of the synthetic index is (0.56) and (0.48), respectively. At the same time, it needs to be stressed that the human capital of rural areas in these two provinces is characterized by a higher level of development compared to that in some urban areas within that class. Such a situation was found in the case of human capital in urban areas of the Kujawsko-pomorskie, Śląskie, Podkarpackie, Świętokrzyskie, Łódzkie and Warmińsko-mazurskie Provinces. It is also necessary to emphasize the low position in the ranking for rural areas in the Dolnośląskie and particularly in the Mazowieckie Provinces. Generally, this situation indicates how greatly assessments of human capital development in a given region may differ, when major agglomerations for a given region are excluded from analysis, e.g. as in this case such urban agglomerations as Wrocław or Warszawa.

Class 3 comprises provinces with the highest level of human capital development. The synthetic index of human capital resources in this group of areas falls within the range of (0.6211; 0.9184). It is also a homogeneous group, this time represented solely by urban areas, including the Mazowieckie, Wielkopolskie, Pomorskie, Małopolskie and Dolnośląskie Provinces. Among them a definite leader in terms of human capital resources is represented by urban areas of the Mazowieckie Province, as evidenced by the highest value of the synthetic index (0.92). Nevertheless, it needs to be shown that, in the case of other provinces also characterized by a high level of human capital, values of the synthetic index of human capital resources are considerably lower and range from 0.63 to 0.67. The marked gap in development within this group between urban areas of the Mazowieckie Province and the others results from the fact that diagnostic variables X_1, X_4 and X_5 reached maximum level on a national scale, which, as a consequence, determined the maximum values of *IHCR* partial derivatives and also implied the highest value of the synthetic index for urban areas of the Mazowieckie Province.

CONCLUSIONS

Based on the obtained results, it needs to be stated that rural and urban areas in Poland vary greatly in the spatial distribution of human capital resources. Marked spatial differences are observed in the level of human capital. Two homogeneous classes may be distinguished, including urban areas with a high level of human capital development, as well as rural areas with their low level. Moreover, there is a heterogeneous group of the so-called medium level of human capital, composed of both urban and rural areas. At the same time, it is the most numerous group, since it comprises 19 administrative division units taking the division into urban and rural areas into consideration. In Poland, urban areas of the Mazowieckie Province are definite leaders in terms of human capital resources and their quality. At the same time, we need to be aware that human capital in rural areas of the Mazowieckie Province, compared to that in urban areas of that province, shows markedly inferior levels, which indicates a lower level of its development. Generally, it may be assumed that this is a perfect illustration of the problems of so-called growth centres for the socio-economic development of the region and the disparities in the development of the region as a whole.

In Poland, there are some rural areas, in which human capital resources and their quality surpass those of some urban areas. It may be concluded that examples of such areas are, in particular, rural areas in the Pomorskie and Wielkopolskie Provinces, which exceeded several urban areas from other provinces in the ranking.

This confirms the adopted assumption on the strong diversification of rural and urban areas in Poland in terms of human capital resources. Within the obtained spatial distribution of diversified human capital resources, it may rightly be stated that the level of convergence and socio-economic cohesion, in view of the standard of human capital resources, is rather unsatisfactory. As a consequence, we may also conclude on the insufficient effectiveness of regional policy at a national level and/or also polices of individual regions in the limitation and elimination of development disparities between regions and areas serving different economic functions. Particularly, the observed polarization in hu-

man capital resources may, in the future, reduce the absorption of development impulses within both national and EU development policies.

Considerable differences in the spatial distribution of human capital resources and their quality are disadvantageous. In the future, an attempt needs to be made to eliminate existing disparities between provinces, as well as those found between urban and rural areas, because they are significant obstacles in attaining sustainable development in the entire country, both in light of economic and social aspects.

In view of the execution of regional, social and cohesion policies in the socio-economic aspect in future periods, it is necessary to advocate and persuade decision-makers to focus on the problem of human capital resources to initiate actions leading to the elimination of development gaps in this respect. It seems that one of the key actions needs to include education and training, or, more generally, support for attaining professional and vocational qualifications, particularly by inhabitants of rural areas, as those determining human capital, and this, in turn, is a key determinant of economic development. However, it is advisable to exercise caution and diligence when constructing the forms and principles for such support, since based on the results of evaluation studies [IRWiR PAN 2019] for the interventions initiated and implemented to date using EU funds, it turns out that often support for the improvement of vocational qualifications in the rural population was not reflected in increased employment or self-employment rates. Frequently changes in the level of education or qualifications attained through courses or training prove to be questionable, since their offer and quality were not adapted or cohesive with the needs of the local or global labour market; this is because "while we may indicate examples of a positive, direct impact of soft-skill projects (e.g. training) on undertaking economic activity or employment, it is not a common effect" [IRWiR PAN 2019].

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ZRÓŻNICOWANIE ZASOBÓW KAPITAŁU LUDZKIEGO NA OBSZARACH WIEJSKICH I MIEJSKICH W POLSCE

Słowa kluczowe: kapitał ludzki, obszary wiejskie, obszary miejskie, zróżnicowanie przestrzenne

ABSTRAKT

Celem artykułu jest oszacowanie oraz analiza i ocena zróżnicowania przestrzennego zasobów kapitału ludzkiego na obszarach wiejskich i miejskich w Polsce. Badania mają charakter statyczny i odnoszą się do stanu sytuacji w 2018 roku. Wykorzystano syntetyczny wskaźnik zasobów kapitału ludzkiego (WSZKL), na podstawie którego dokonano hierarchii obszarów wiejskich i miejskich w przekroju województw określając stopień ich zróżnicowania badanych pod względem zasobów kapitału ludzkiego. Analizę zasobów kapitału ludzkiego przeprowadzono w czterech kategoriach, tj. w aspekcie zatrudnienia, wykształcenia, przedsiębiorczości oraz bezrobocia, wykorzystując dane Banku Danych Lokalnych GUS. Wyniki badań wskazują na znaczne zróżnicowanie terytorialne (przestrzenne) obszarów wiejskich i miejskich. Można wyróżnić dwie homogeniczne klasy, w tym obszary miejskie o wysokim poziomie rozwoju kapitału ludzkiego, oraz obszary wiejskie o niskim poziomie rozwoju kapitału ludzkiego. Ponadto występuje niejednorodna grupa o tzw. średnim poziomie kapitału ludzkiego, składająca się zarówno z terenów miejskich, jak i wiejskich. W szczególności występująca polaryzacja w zakresie zasobów kapitału ludzkiego może ograniczać w przyszłości absorpcję impulsów rozwojowych, zarówno w ramach krajowych, jak i unijnych polityk rozwojowych.

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