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# THE DEMOGRAPHIC POTENTIAL AND ECONOMIC ACTIVITY OF THE RURAL POPULATION OF THE MAŁOPOLSKIE VOIVODESHIP[1]

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**Abstract.** The aim of this elaboration is to identify the demographic situation and the economic activity of the population of rural communes in the Małopolska voivodeship and identification of relations between their level of economic development and features which determine social aspect of their development. The choice of units for the research was based on multicriteria method of zero unitarization. The primary source of information were the statistical data for the years 2004–2011 published by the Local Data Bank and System of Analysis of Local Government. The conducted research demonstrates the existence of statistical links between the level of economic development of local government units and the state and quality of their demographic determinants.

**Key words:** socio-economic development, the rural population, Małopolska voivodeship, rural communes, zero unitarization method, indicator of correlation.

## INTRODUCTION

One of the key factors that determine a region's economic growth potential and capability, including growth of agriculture and rural areas, is its demographic situation. This concept means the entire range of processes related to human resources management, namely the birth rates, migration, social structure (age, sex, occupation, nationality, religion), their spatial distribution and social/sociological impact.

At the moment, many economists dealing with the issues of regional development tend to emphasize that economic growth is determined by people, with their knowledge, ability to acquire and process information, inventiveness, entrepreneurial spirit and seeking new creative solutions. They claim that only a part of effects of economic activities can be attributed to capital investments and external circumstances, while success largely depends on the structure of human resources by age, qualifications, ability to cooperate ability to continuously adapt to changing external circumstances (Górecki, 2004; Gradziuk, 2008; Klepacki, 2005; Wilkin, 2006).

Development of the market economy and strengthening competition are more and more often represented by activities of local government bodies which are forced to introduce new methods of management and utilizing their demographic potential. However, it should be borne in mind that it is not always the quantity but rather the quality that determines the competitive position and growth opportunities. Therefore, treating people as the

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most valuable resource must become the reality because in the era of knowledge and qualifications, the market may no longer accommodate operators that fail to invest in human capital and its innovative quality (Cymanow and Kożuch, 2006).

## RESEARCH MATERIALS AND METHODOLOGY

The purpose of this study is to attempt at an assessment of demographic potential and economic activities of the population of rural communes of the Małopolskie voivodeship and identification of relations between their level of economic development and features which determine social aspect of their development. Defining the research scope and objects for analysis consisted of eliminating the municipal and mixed municipal/rural communes that failed to meet the criteria of being a distinguished rural area in the Małopolskie voivodeship and use of multicriteria method of zero unitarization. The 125 communes were divided into groups at different levels of economic growth on the basis of the values of synthetic measures of growth that were determined on the basis of the adopted set of diagnostic variables (Table 1).

The selection of features was based on the subject-matter criterion, according to which variables should describe the studied phenomenon to the maximum extent, and a formal criterion where the prerequisite for qualification for analysis was the low value of mutual correlation factor and relatively high value of variability factor. Other factors that were taken into account when choosing the variables included availability and completeness of statistical information (Paluch, 2014). Adopted diagnostic variables were transformed into the form, where the interval of variations has a fixed length of 1 (Młodak, 2006). Normalization (unitarization) of the diagnostic features was carried out using unitarization formula (Kukuła, 2000):

$$z_{ij} = \frac{x_{ij} - \min x_{ij}}{\max x_{ij} - \min x_{ij}} \quad x_{ij} \in S$$

where: $z_{ij}$ – value of the normalized variable, $x_{ij}$ – value of the diagnostic variable, $\max x_{ij}$ – maximal value of the diagnostic variable in the set of objects, $\min x_{ij}$ – minimal value of the diagnostic variable in the set of objects, $S$ – set of stimulants.

The values of normalized diagnostic variables allowed to create a synthetic measure ($z_j$) for each of the

**Table 1.** Groups of variables characterizing the economic aspect of development of rural communes
**Tabela 1.** Zestaw zmiennych charakteryzujących rozwój badanych gmin w wymiarze gospodarczym

| Economic aspect of development Gospodarczy wymiar rozwoju |
|---|
| Economic servicization ratio (number of people employed in the service sector per 1000 people) Wskaźnik serwicyzacji gospodarki (liczba osób pracujących w sektorze usług na 1000 mieszkańców) |
| Number of state-run economic entities per 1000 people Liczba podmiotów gospodarczych zarejestrowanych w REGON na 1000 mieszkańców |
| Share of investment outlays in total expenditure in time (%) Udział wydatków majątkowych inwestycyjnych w wydatkach ogółem (%) |
| Own income of the municipality (PLN per person) Wielkość dochodów własnych (zł na mieszkańca) |
| Size of funds sourced from the EU budget (PLN per person) Wielkość środków pozyskanych z budżetu UE (zł na mieszkańca) |
| Level of budget income from tax contributions (PLN per person) Wielkość wpływów do budżetu z tytułu podatków (zł na mieszkańca) |

Source: own elaboration.
Źródło: opracowanie własne.

**Table 2.** Apportionment of rural communities of the Małopolska voivodeship into groups of different levels of economical aspect of development
**Tabela 2.** Podział gmin wiejskich województwa małopolskiego na grupy o różnym poziomie rozwoju w wymiarze gospodarczym

| Group<br>Grupa | Type of group<br>Rodzaj grupy | Criterion of division<br>Kryterium podziału |
|---|---|---|
| I | Highest level of development<br>Najwyższy poziom rozwoju | $z_j \geq Sr(z_j) + S(z_j)$ |
| II | Medium level of development<br>Średni poziom rozwoju | $Sr(z_j) \leq z_j < Sr(z_j) + S(z_j)$ |
| II | Low level of development<br>Niski poziom rozwoju | $Sr(z_j) - S(z_j) \leq z_j < Sr(z_j)$ |
| IV | Lowest level of development<br>Najniższy poziom rozwoju | $z_j < Sr(z_j) - S(z_j)$ |

Source: own elaboration.
Źródło: opracowanie własne.

analysed local government units. The synthetic measures ($z_j$) were used to compare the levels of development of individual multivariate units (Młodak, 2006):

$$z_j = \frac{\sum_{i=1}^{n} z_{ij}}{n} \quad (i = 1, 2, \ldots, r),$$

Explanations: $z_j$ – the average value of the $j$-th variable normalized, $z_{ij}$ – the $i$-th object for the $j$-th normalized variable, $n$ – number of examined objects.

A ranking of the communities of the Małopolskie voivodeship, regarding their level of economic development, was created basing on the values of synthetic measures ($z_j$), listed in not ascending order. In the ranking there were identified four groups of the communities with different level of development. For the identification two characteristics of synthetic measure were used: an arithmetic mean – $Sr(z_j)$ and standard deviation – $S(z_j)$ (Table 2).

In the following part of the paper, there was examined a correlation between the demographic characteristics and economic development indicators within the analyzed local government units. This search was performed using Pearson's correlation coefficient ($r_{xy}$) and chi-squared test. Evaluation of demographic factors and vocational activities of the population domiciled in the territory of rural communes of the Małopolskie voivodeship, characterized by different levels of economic growth, was carried out on the basis of statistical

data published by the Local Data Bank and the Local Government Analysis System. The time range for the studied factors was the period from 2010 to 2011 and for diagnostic variables used for construction of the synthetic measure of 2004–2010.

## RESEARCH FINDINGS

Spatial distribution of the population, which refers to internal differentiation of its socio-economic development level, plays a major part in the analysis of demographic potential of a local unit (Czapiewski, 2004). The groups of rural communes selected for study are characterized by manifest internal differentiation, in terms of the specific values of demographic characteristics. In terms of population size, group III is the largest (at low level of economic development) where the inhabitants of the relevant communes represent almost half (49%) of the studied population. Average population density is 116 persons per square kilometer here, which is the lowest value of all the groups. The smallest number of inhabitants live in group I and IV units, totalling ca. 24% of the aggregate value. Average population density for these groups is the highest of all the tested values, at 138 and 137 persons per square kilometer, respectively. The number of people domiciled in the communes qualified as group II (medium level of economic development) represents ca. 27% of the total, with population density at 134 persons per square kilometer. Feminization rates

**Table 3.** Selected characteristics of the demography of the investigated groups of rural communes
**Tabela 3.** Wybrane charakterystyki demografii badanych grup gmin wiejskich

| Area<br>Obszar | | Population<br>Ludność | Population density<br>(persons per square kilometer)<br>Gęstość zaludnienia<br>(osób/km²) | | | Feminization rate<br>Wskaźnik feminizacji | | |
|---|---|---|---|---|---|---|---|---|
| | | | min. | max.<br>maks. | average<br>średnia | min. | max.<br>maks. | average<br>średnia |
| Poland<br>Polska | | 38 200 037 | | 122 | | | 107 | |
| Małopolska voivodeship<br>Województwo małopolskie | | 3 310 094 | | 215 | | | 106 | |
| Group of<br>communes<br>Grupy gmin | I | 158 693 | 25 | 331 | 138 | 98 | 108 | 102 |
| | II | 327 068 | 22 | 282 | 134 | 95 | 106 | 102 |
| | III | 595 255 | 40 | 246 | 116 | 94 | 111 | 101 |
| | IV | 130 003 | 82 | 193 | 137 | 97 | 106 | 101 |

Explanations of the table: I – communes with the highest level of economic development, II – communes with the medium level of economic development, III – communes with the low level of economic development, IV – communes with lowest level of economic development.
Source: own elaboration based on data published by the BDL for 2012 (BDL, n.d.).
Objaśnienia do tabeli: I – gminy o najwyższym poziomie rozwoju gospodarczego, II – gminy o średnim poziomie rozwoju gospodarczego, III – gminy o niskim poziomie rozwoju gospodarczego, IV – gminy o najniższym poziomie rozwoju gospodarczego.
Źródło: opracowanie własne na podstawie danych BDL za rok 2012 (BDL, b.d.).

in all groups are similar, lower than the measure for the whole voivodeship, at 102 in groups I and II, and 102 in groups III and IV. It means that on average, more women than men live in all the distinguished groups of communes (Table 3).

An important aspect of determination and balancing of developmental processes is the birthrate and population migration, determined by continuously changing internal and external factors. Enhanced migration processes are noticeable in the territory of the Małopolska region, which is prominent for the rural areas of the region. On the one hand, we are dealing with a process of slow suburbanization, i.e. migration of city centers towards the suburbs, which is particularly noticeable in large metropolitan areas of Kraków, Nowy Sącz and Tarnów. On the other hand, in the peripheral areas, intensive depopulation of rural areas, located away from larger metropolitan centers, can be observed.

Apart from continuous migration of inhabitants of the peripheral locations to cities and suburbs, there are also high rates of daily economic migration. The losses

are highest in monofunctional communes with predominantly farm production, i.e. in areas representing traditional agriculture (Jedut, 1992). International migrations, particularly emigration of the rural population, mainly from the southern part of the voivodeship, are temporary and occur at a significantly lesser scale than domestic migrations. Recently, particularly following Poland's accession to the European Union, this process has been quite intensive, with Western European countries being the preferred direction of migration. This is quite important because permanent migration is disadvantageous in terms of rural areas' interests. Internal differentiation of such demographic processes is even more conspicuous within the distinguished groups of rural communes. Average birthrates range from 1.7 in group I through 2.1 in group II and 3.3 in group III, to 4.4 in group IV. The studied groups of communes present average positive balance of internal and international migrations, i.e. from 5.6 in group 1 to 1.2 in group III, with the values for groups II and IV at 3.3 and 2.1, respectively (Table 4).

**Table 4.** Characteristics of the migration and natural increase of the groups of rural communes
**Tabela 4.** Charakterystyki procesów migracji i przyrostu naturalnego badanych grup gmin wiejskich

| Specification Wyszczególnienie | | Birthrate per 1000 population Przyrost naturalny na 1000 mieszkańców | | | Balance of internal and international migration for permanent residence per 1000 population Saldo migracji wewnętrznych i zagranicznych na pobyt stały na 1000 mieszkańców | | |
|---|---|---|---|---|---|---|---|
| Poland Polska | | 1.1 | | | 2.8 | | |
| Małopolska voivodeship Województwo małopolskie | | 2.5 | | | 1.4 | | |
| | | min. | max. maks. | average średnia | min. | max. maks. | average średnia |
| Group of communes Grupy gmin | I | –7.1 | 6.1 | 1.7 | –4.5 | 34.8 | 5.6 |
| | II | –6.8 | 7.6 | 2.1 | –8.2 | 10.9 | 3.3 |
| | III | –6.6 | 9.9 | 3.3 | –4.0 | 8.5 | 1.2 |
| | IV | –5.2 | 12.1 | 4.4 | -0.3 | 7.2 | 2.1 |

Explanation of the table: explanation of the groups is the same as in the table 3.
Source: own elaboration based on data published by the BDL for 2012 (BDL, n.d.).
Objaśnienia do tabeli: oznaczenia jak w tabeli 3.
Źródło: opracowanie własne na podstawie danych BDL za rok 2012 (BDL, b.d.).

What also emerges from the analysis is that the communes qualified to groups I and II (at a higher level of economic development) are characterized by lower birthrates. This is verified by Pearson's linear correlation coefficient ($r_{xy}$), at –0.351, with statistics $t_e = –4.190$ and $t_\alpha = 1.978$, for significance assumed at α = 0.05. Calculated correlation coefficient values range from 0.300 to 0.500, which is an indication of significant average dependency. Negative correlation indicates that the increase of the value of synthetic measure that illustrates the level of economic growth is typically associated with a decrease of the value of birthrate. On the other hand, the analysis of dependency between the level of economic growth of rural communes and the value of migration balance indicates that we are dealing with a reverse occurrence to positive birthrate, i.e. increasing values of synthetic measure are usually associated with higher positive migration balance. The existing dependencies are verified by the value of Pearson's correlation coefficient ($r_{xy}$), at 0.454, while the significance test demonstrated that $|t_e| > t_\alpha$ (where $t_e = 5.691$ and $t_\alpha = 1,978$). Positive value of correlation coefficient will therefore indicate that the higher the value of the synthetic measure of economic development of the given local government unit, the higher the positive balance of migration (surplus of immigration over emigration) of the local population.

According to the assessment of demographic processes occurring in rural communes of the Małopolskie voivodeship, there is a reasonably anticipated dependency between the level of their economic development and the birthrate and population migration. Selected communes qualified to groups with higher levels of economic development (groups I and II) are characterized by lower birthrates, with higher intensity of migrations. In rural areas with a lower level of economic development (groups III and IV), reverse tendencies can be observed. Despite the process of abandoning the view that high birthrates determine low level of economic development, this commonly accepted opinion cannot be disregarded altogether (Zając, 2006). This applies mainly to areas in peripheral locations, with high birthrates and manifest emigration for economic purposes, consequently leading to deterioration of their economic activity. Another important factor is the recently changing family model, i.e. the shift from families with many children towards the 2+1 model, typical of city or suburban population.

In the analysis of dependency between the demographic potential and the level of economic development of the region, its quality plays an important part as well. This is because human capital prevailing in the given area is given more emphasis then material resources in the currently prevailing concepts of local growth (Satoła, 2009). Low level of education among the inhabitants of the rural populations is currently among the most important social problems (Kołodziejczyk, 2002). The existing relationship between the efficiency of farming and the level of education is gaining importance, particularly at the moment. However, it may be difficult to adapt the agricultural industry and the institutional environment of rural areas, particularly in terms of so-called subsistence agriculture and extensive agriculture (Janc and Czapiewski, 2005).

Through analysing the structure of education among the population of rural communes, similar characteristics can be discovered. Group I communes are inhabited by the highest proportion of people with university education and secondary education, at 5.3% and 23.7%, respectively. About 29.6% of the population have vocational qualifications, and approx. 41.4% have complete or partial elementary education or no education at all.

The percentage of inhabitants with the lowest levels of education is highest in group II communes, at 44.7%. The structure of local communities in groups III and IV is similar and the particular components vary slightly. The summary education level calculated as a score for units qualified to these groups is also similar, around 2.83 points[2]. The only exception to this rule is group I with 2.91 points (Table 5).

The average values shown above which represent the level of education among the populations of rural communes in the Małopolskie voivodeship are characterized by low differentiation rates. Therefore, the types of dependencies between the quality of local inhabitants' education and economic development of the given local government units cannot be fully identified on this basis. With low coefficient of variation of diagnostic features, under 10%, it is difficult to determine the existing correlations. Many researchers claim that from the

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[2] Education indicator was determined as weighted average of the specific levels within the point scale from 1 to 5 points where incomplete elementary school and no education represents 1 point, elementary education – 2 points, vocational – 3 points, secondary – 4 points, higher – 5 points.

**Table 5.** Educational structure of the population in the groups of rural communities
**Tabela 5.** Struktura wykształcenia ludności badanych grup gmin wiejskich

| Education level Poziom wykształcenia | Groups of communes – Grupy gmin | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | I | | II | | III | | IV | |
| | % | Rate Wskaźnik | % | Rate Wskaźnik | % | Rate Wskaźnik | % | Rate Wskaźnik |
| University Wyższe | 5.3 | | 4.2 | | 3.8 | | 3.7 | |
| College Średnie | 23.7 | | 21.7 | | 22.1 | | 22.7 | |
| Secondary school Zasadnicze zawodowe | 29.6 | 2.91 | 29.4 | 2.83 | 31.3 | 2.84 | 31.5 | 2.83 |
| Primary school Podstawowe | 36.9 | | 39.5 | | 38.9 | | 38.1 | |
| Incomplete primary school Niepełne podstawowe | 4.5 | | 5.2 | | 4.0 | | 4.0 | |

Explanation of the table: explanation of the groups is the same as in the table 3.
Source: own elaboration based on data published by the BDL for 2012 (BDL, n.d.).
Objaśnienia do tabeli: oznaczenia jak w tabeli 3.
Źródło: opracowanie własne na podstawie danych BDL za rok 2012 (BDL, b.d.).

professional point of view, without this kind of diagnostic feature, objects development level analysis in the social perspective may become incomplete (Czapiewski, 2004; Kukuła, 2000; Stanny, 2011).

The educational processes pending during the recent years in rural areas of Małopolska indicate that, despite the improvement of the general level of education of the population, this did not strongly contribute to bridging the gap between cities and countryside. However, generational replacement and the awareness of the need for professional development among the inhabitants of the rural areas can be an opportunity for bridging the education gap. Out-of-school training models, based on professional experience, organization of training and promoting agricultural knowledge through implementation of its various forms, play an important role in this field (Radwan, 2008).

Another factor that affects the type and rate of socio-economic transformation in the given region in the context of demographic processes occurring in that region is the population structure by economic group. Age structure of the inhabitants of rural communes of Małopolska demonstrates low differentiation as between the tested groups. Pre-working age inhabitants represent ca. 23% of the populations of groups III and IV communes, which is 3.3 percentage points higher than the provincial average; working age people represent ca. 62%, with the value for the entire voivodeship 1.1 p.p. higher; and post-working age population at approx. 15.1%, i.e. 1.5 p.p. less than in Małopolska. Certain differences against the average measure determined for the voivodeship are also demonstrated by group I and II units where this relation is as follows: pre-working age population representing 21.2% and 21.7% of the total, respectively; working age population representing ca. 62.9% and 62.6%, respectively; and post-working age at ca. 15.9% and 15.7% (Table 6).

The analysis of numerical information thus indicates that the age structure of the inhabitants of rural communes is less advantageous than the distribution within the population of the Małopolskie voivodeship. This translates into the value of demographic load coefficient, which is higher than that determined for the region. The values of this coefficient in the selected groups are as follows: I – 58.1; II – 58.6, III – 61.2; IV – 62.6. When analyzing the above mentioned values, certain regularity can be observed, namely in communes at higher economic development levels (groups I and II), the value of demographic load coefficient is lower than for units at lower levels of economic development (groups III and IV).

According to the Central Statistical Office data, age structures of rural commune populations in the

**Table 6.** Age structure of the population in groups of rural communities
**Tabela 6.** Struktura wiekowa ludności badanych grup gmin wiejskich

| Specification Wyszczególnienie | | Share of the working age of the population (%) Udział ludności w wieku (%) | | | Burden demographic Obciążenie demograficzne |
|---|---|---|---|---|---|
| | | before production age przedprodukcyjnym | production age produkcyjnym | after production poprodukcyjnym | |
| Polska Poland | | 18.7 | 64.4 | 16.9 | 55.1 |
| Małopolska voivodeship Województwo małopolskie | | 19.7 | 63.7 | 16.6 | 57.0 |
| Grupy gmin Groups of communes | I | 21.2 | 62.9 | 15.9 | 58.1 |
| | II | 21.7 | 62.6 | 15.7 | 58.6 |
| | III | 23.1 | 61.8 | 15.1 | 61.2 |
| | IV | 23.0 | 61.9 | 15.1 | 62.6 |

Explanation of the table: explanation of the groups is the same as in the table 3.
Source: own elaboration based on data published by the BDL for 2012 (BDL, n.d.).
Objaśnienia do tabeli: oznaczenia jak w tabeli 3.
Źródło: opracowanie własne na podstawie danych BDL za rok 2012 (BDL, b.d.).

Małopolskie voivodeship demonstrate an increasing proportion of the post-working age population. There is also a population shift towards the non-mobile working age limit, namely from 45 to 67 years of age. This leads to an increase of the demographic load coefficient, and this tendency will be maintained. The presented process results from the demographic decline of the 1990s entering the working age, and the baby boomers of 1970s simultaneously reaching the non-mobile age limit. Demographic changes within the region are therefore going to result in age structure transformation and continuously increasing proportion of retirement age population (Województwo..., 2012).

This process is of essential importance in the social and economic perspective, due to its negative effect on the functioning of the job market, on the supply and demand side. The specified demographic changes have certain (usually negative) consequences for the local economy and finances of local government units. A diverse set of actions seems to be a proper response for the anticipated tendency, particularly comprising the local job market area. Because the compensating effect of migration on birthrate is significantly limited, key emphasis should be on projects that stimulate vocational activity of the population, i.e. increasing vocationally active population through indirect impact instruments. This, in particular, refers to elimination of recognizing vocationally inactive populations, i.e. the oldest and the youngest members of the community, as the "economic cycle bumper" of the supply side of the job market (Kryńska, 2011).

Vocational activity of the population is among the key factors that determine the situation on the job market, in addition to education level, sex and domicile. Unemployment rates are demonstrably diverse across the studied communes. The lowest order of magnitude of similar values occurs for group I and II communes, characterized by a higher level of economic development, as against the remaining communes where unemployment rates are at 5.9% and 6.0%, respectively. The highest proportion of the unemployed within the entire population exists in communes at lower levels of economic development (groups III and IV), with unemployment rates at 7.4% and 9.5%, respectively. If we review the rates of unemployment by sex, we can note that women prevail among the unemployed within the separate groups, like for the entire region (Table 7).

**Table 7.** Characteristics of the unemployment of the groups of rural communes
**Tabela 7.** Charakterystyki zjawiska bezrobocia badanych grup gmin wiejskich

| Specification<br>Wyszczególnienie | | Unemployed persons<br>Osoby bezrobotne | | Unemployment rate (%)<br>Stopa bezrobocia (%) | | |
|---|---|---|---|---|---|---|
| | | total (persons)<br>ogółem (osób) | including men (%)<br>w tym mężczyźni (%) | | | |
| Poland<br>Polska | | 1 954 700 | 49.0 | 12.3 | | |
| Małopolska voivodeship<br>Województwo małopolskie | | 142 200 | 46.9 | 10.4 | | |
| | | | | min. | max. | średnia<br>average |
| Group of communes<br>Grupy gmin | I | 5 305 | 48.0 | 3.4 | 12.2 | 5.9 |
| | II | 11 643 | 48.0 | 3.2 | 14.3 | 6.0 |
| | III | 26 366 | 47.0 | 3.9 | 16.3 | 7.4 |
| | IV | 7 430 | 44.9 | 6.2 | 13.5 | 9.5 |

Explanation of the table: explanation of the groups is the same as in table 3.
Source: own elaboration based on data published by the BDL for 2012 (BDL, n.d.).
Objaśnienia do tabeli: oznaczenia jak w tabeli 3.
Źródło: opracowanie własne na podstawie danych BDL za rok 2012 (BDL, b.d.).

Hidden unemployment plays an important part in determining the values that represent the processes occurring on the job market, particularly in rural areas. This phenomenon is difficult to ultimately identify or express quantitatively (Moskal, 2003). Through processing the publicly available statistics, one may notice that the job market in rural areas is mostly determined by the same regularities that apply in municipal areas. Still, it has certain unique characteristics such as high rates of hidden unemployment, slightly lower rate of the registered unemployment, higher rates of vocational activity and employment. Some of these features are apparent only, derived from institutional surroundings (Żmija, 1999). It should be borne in mind that, pursuant to the Act regulating the job market, owners of agricultural establishments (farmers) are usually not allowed to register as unemployed (Ustawa..., 2004). Thus, taking into account the surplus of available workforce in agriculture, unemployment in rural areas would be significantly higher. Therefore, the rate of unemployment in rural areas is officially lower in national registers than in towns and cities, although in fact these values are in a reverse relationship, as the situation of people not owning any land tends to be much more difficult. This is due to such factors as low numbers of employees at employer establishments operating in these areas, poor quality of technical infrastructure, and occasionally passive and conservative attitudes of the rural population on the local job market (Musiał, 2008).

Evaluating the populations of the rural communes of the Małopolskie voivodeship in the context of demographic changes, we may conclude that they are characterized by manifest differentiation between the particular areas. Despite that the birthrate, migration directions, sex structure and proportions of persons from the particular economic groups do have an actual impact on economic growth of the region, aggregate analysis of demographic characteristics of rural communes of the Małopolskie voivodeship demonstrated non-existence of any clear relationship between their economic and social growth rates. The synthetic measure of economic development was correlated with the rate of evaluation of the social dimension at $r_{xy} = 0{,}124$, indicating very weak interdependency of the studied demographic features in aggregate.

## SUMMARY

The division into core and peripheral systems is visibly marked in the studied groups of rural communes of the Małopolskie voivodeship. The social potential is definitely highest in communes located in suburban zones, having multifunctional characteristics, which – together with the neighbouring metropolitan areas – constitute the so-called core areas (groups I and II). In peripheral units (groups III and IV) showing a single-functional, typically agricultural profile, development processes proceed at significantly lower rates and sometimes take a reverse turn. The most important barriers for social and economic growth in the countryside of Małopolska include: lower level of education of local inhabitants than that in cities and suburbs, low demand for work outside agriculture, occurrence of hidden unemployment, growth of grey area, passive attitude and withdrawal from the market of people oriented towards receiving welfare services. One may therefore claim that the agricultural sector will more and more often act as a buffer which accumulates potential unemployed people, which does not mean that the rural areas of Małopolska do not have a sufficient social potential that largely determines improvement of their economic development level. It should be borne in mind that today, it would be difficult to equate agriculture with what is traditionally perceived as rural areas because rural areas are becoming more and more multifunctional today, while the concept of agriculture is no longer restricted to a specific profession.

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## POTENCJAŁ DEMOGRAFICZNY I AKTYWNOŚĆ EKONOMICZNA LUDNOŚCI WIEJSKIEJ WOJEWÓDZTWA MAŁOPOLSKIEGO

**Streszczenie.** Celem opracowania jest próba oceny potencjału demograficznego i aktywności ekonomicznej ludności gmin wiejskich województwa małopolskiego oraz identyfikacja zależności występujących między poziomem rozwoju gospodarczego a cechami warunkującymi ich rozwój w wymiarze społecznym. Przy wyborze jednostek do badań zastosowana została wielokryterialna metoda unitaryzacji zerowanej, a podstawowe źródło informacji stanowiły dane statystyczne za lata 2004–2011 publikowane przez Bank Danych Lokalnych oraz System Analiz Samorządowych. Uzyskane wyniki wskazały na występowanie statystycznie istotnych zależności między poziomem rozwoju gospodarczego badanych jednostek samorządu terytorialnego a stanem i jakością uwarunkowań demograficznych występujących na ich obszarze.

**Słowa kluczowe:** rozwój społeczno-gospodarczy, ludność wiejska, województwo małopolskie, gminy wiejskie, unitaryzacja zerowana, współczynnik korelacji