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# POPULATION MOVEMENT RELATED TO EMPLOYMENT ON THE EXAMPLE OF RURAL COMMUNES OF THE ŁÓDŹ VOIVODSHIP

Key words: local government, population movement, employment, rural development

ABSTRACT. The aim of the study was to identify directions of functional and spatial connections based on employment-related population movement. Two basic accessibility variables were adopted as the basis for analysis, namely distance and travel time. The spatial scope of the study was limited to selected rural communes of the Łódź Voivodship, which were characterised by a low rate of population movement to work, illustrating the ratio of the number of people coming to a given commune to work, to the number of people leaving the given commune to work in other territorial units. The indicator was calculated based on data from the Central Statistical Office regarding population movement. Distance and travel time were also analysed based on the statistical data of the Central Statistical Office in the scope of estimated distance and travel time from the commune being the place of residence to the commune of the workplace. Analysis showed that both the distance and time of commuting to work practically does not deviate from accepted values. In some cases, rural residents are willing to travel longer distances, and thus spend more time commuting to work. Decisions about daily commuting to work to the city are linked to the possibilities of taking up employment, although a short distance is not a sufficient and only criterion here. Underdeveloped cities are not thereby less attractive in terms of employment, however the interest of potential employees in them is much weaker than in the case of cities allowing for a proper matching of labour demand and supply.

## INTRODUC-TION

Along with progressing socio-economic development, not only cities, but also villages are undergoing dynamic transformation. A consequence of these changes is, for example, an observed increase in the population living in rural areas. In the years 2010-2018, it increased by 250 thousand, reaching a level of 15,318 people (31.12.2018). As forecasts indicate, this trend will also continue in the coming years. According to estimates, in 2035, 15,532 thousand people will live in the villages of Poland, which means an increase by 214 thousand compared to 2018 [GUS 2019a]. Aforementioned demographic changes are a result of many factors; however, they are mainly caused by: the birth rate, internal migration between a city and a village, foreign migration for permanent residence and changes in the administrative division.

Table 1. Number of people living in cities and villages (31.12)

| Years | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|
| City | 22,716 | 22,216 | 21,618 | 20,945 |
| Village | 15,421 | 15,525 | 15,567 | 15,532 |

Source: [GUS 2019a]

As a consequence, not only the population of villages is changing. For many years, it has been involved in disagrarisation, manifesting itself by a decrease in the percentage of people employed in agriculture, but also a decrease in the importance of agricultural income in the income structure of rural residents. It is becoming increasingly clear that agriculture is no longer the main form of activity. In 2016[1], it was the sole source of income for less than 10% of those working in the countryside. Whereas income from contract work constituted 48.5% of the total income in rural households (in cities, this share was at a level of approx. 55%) [Wilkin 2018, p. 13].

The village is also becoming an increasingly attractive place of residence for city residents. This is confirmed by migrations for permanent residence between villages and cities, which were, next to birth rate, the second factor of an increase in the number of the rural population. In 2016, as in previous years, the migration balance was positive for villages, although it decreased from 1.9 persons per 1000 rural population in 2014 to 1.6 in 2016 [Frenkel 2018, p. 29].

The movement of people from the city to the countryside has certain consequences. As city residents settling in the countryside "bring" a different lifestyle with them, characterised by urban mentality, behaviour and habits, they also have different needs and expectations concerning the quality of public services rendered, development and amenities in public spaces, etc. [Szukalski 2014]. Thus, the similarity of attitudes, aspirations (e.g. educational and professional) and consumption patterns of rural residents with the rest of the country are becoming ever more and more visible.

In the context of considerations carried out, it is impossible to ignore the issues related to the intensive development of the road infrastructure in Poland, which has significantly increased the mobility of the population, and thus the accessibility of urban centres. From the perspective of rural residents, this has allowed for the separation of the place of residence and employment. Cities offer more favourable conditions for realising many needs, above all including those related to work (obtaining relatively reliable and stable employment), but also concerning education, health care, culture, sport, recreation and leisure or shopping. They become a reference point for emerging functional relationships on the village-city line (deconcentration). Relationships resulting, on the one hand, from the "escape" of city residents to the countryside in response to rising living costs, the deterioration of living conditions (noise, pollution, artificial isolation of city fragments, the "plundering" of green areas, etc.) and, on the other hand, – from the search by "indigenous" village residents for non-agricultural employment [Sharma 2017].

However, it should be emphasised that the decisions of city residents regarding their place of residence in rural areas will be closely linked to the expected conditions of com-

[1] Adoption of year 2016 as a reference point for the presented considerations results from the cycle of conducting public statistics. Data on employment-related population movement presented in the latter part of the article was collected in 2006, 2011 and in the discussed 2016.

muting to work, primarily in terms of time, as in the case of rural residents deciding to take up employment in the city [Eliasson et al. 2003]. In turn, this state of affairs has a multi-faceted impact on the transformation of the character of the contemporary Polish village. Therefore, it should not be underestimated when shaping rural development policy.

The emergence of a network of relationships between the city and village, based on employment, requires more attention be paid to the movement of rural residents resulting from the performance of work outside their place of residence. It is not only about optimising movement – although this is extremely important, if only due to growing road congestion (increased demand for commuting often exceeds the possibilities of it being handled by road infrastructure). However, it is worth looking at the issue through the prism of the reorientation of the nature of rural areas, or even, as in the case of some so-called surrounding communes, their "absorption" by cities. The increasing number of rural residents commuting to work to other territorial units can also be treated as a signal of a weakening (loss) of their economic base [Renkow, Hoover 2000]. Thus, research on daily commuting is widely used in determining the impact of urban centres on communes located in their area of influence. They are one of the criteria for the delimitation of socio-economic space, the identification of spatial and functional relationships and connections between settlement units [Ilnicki, Michalski 2015, Bul, Walaszek 2015]. Unfortunately, they are still underestimated in papers focused on analysing socio-economic changes and transformations of rural areas, which seems puzzling in the face of the intensification of this phenomenon.

3.3 million employees commuted to work in Poland in 2016 (3.1 million in 2011), which accounted for 30.6% of their total number. Population movement resulting from employment are characterised by a noticeable diversity at a regional level (the most numerous streams of people coming to work from other provinces are directed to Mazovia, Silesia, Greater Poland and Lower Silesia voivodships), but also between communes themselves. It is also not surprising that at this level, they are aimed at large urban centres, although not only them [GUS 2019b].

## MATERIAL AND RESEARCH METHODS

The aim of the article was to identify the directions of functional and spatial relations based on population movement between areas of origin and destination related to employment, on the example of selected communes of the Łódź Voivodship. Analysis was conducted based on two basic accessibility variables – distance and time. Accessibility is a feature of space in which at least two elements distant from each other (in absolute or geodetic distance) can unilaterally or mutually interact with each other (e.g. the source and destination element of accessibility, the source and end point of travel). It needs to be noted that in socio-economic systems, there is no such thing as movement "without reason". Every action is assumed to have a purpose and a reason, which means a cause and effect relationship of emerging potential, i.e. possible relations to be achieved at a specific time and by specific means [Śleszyński 2014].

The considerations presented in the article were based on research on commuting to work carried out by the Central Statistical Office (a matrix of employment-related

population movement). Data comes from the last survey of this type conducted in 2016 (previously it took place in 2006 and 2011). It presents the scale and directions of commuting to work (this should be understood here as the movement of people who work in a commune other than the territorial unit being their place of residence[2]) [GUS 2019b]. In order to determine the direction, time and distance, Central Statistical Office data included in the accessibility matrix, containing selected characteristics of spatial accessibility based on OpenStreetMap resources for 2016, were also used. Road accessibility and estimated travel time by passenger car were used in a "minutes: seconds" record [GUS 2019c].

The spatial scope of the study was limited to communal local government units of the Łódź Voivodship. Selected rural communes were established as the source point (place of residence), for which the directions of occupational activity of residents (performing work in a different place) were indicated – the workplace. The criterion for selecting rural communes for inference was the index of population movement to work (Wpl), calculated on the basis of statistical data of the Central Statistical Office and according to the method adopted by the Office.

Table 2. The index of population movement to work and its scale

| Indicator of population movement related to employment* | Scale |
|---|---|
| $Wpl_{\text{of the commune X}} = \frac{\text{Number of people coming to work to a given commune}}{\text{Number of people leaving a given commune to work in other communes}}$ | 2.01 and more<br>1.51-2.00<br>1.01-1.50<br>1<br>0.51-0.99<br>0.50 and less |

* The number of people coming to work includes both movement between communes of a given province and movement to communes of other provinces

Source: own study based on [GUS 2019b]

The higher the value of the indicator, the more attractive the labour market of a given commune – in other words, the population inflow from other communes due to employment exceeds its outflow. Whereas communes with an indicator located at the bottom of the scale are characterised by weak labour market potential. It is in them that the daily outflow of people to work outside their place of residence is mainly recorded (inflow is rather low).

Based on this, 49 rural communes were identified, the movement to work indicator of which was in the range of 0.50 or less, with all surrounding communes being taken into account, regardless of the value of this indicator. The direction, time and distance of resident movement in relation to employment were determined for selected communes, wherein only the commune of the place of work, to which most residents of the examined commune commuted, was taken into account.

This article only presents a fragment of a broader study concerning the functional and spatial conditions of development of local government units from the perspective

[2] The data presented in the travel matrix concern the influx/efflux of more than 10 contract workers – employed on the basis of an employment relationship (e.g. employment contract, appointment, selection) [GUS 2018].

of cooperation between cities and their surrounding communes. However, the results below have a slightly different perspective. As indicated in the aim, emphasis is put on identifying the direction, time and distance of movement in question, not only in relation to surrounding communes, but also other rural communes from the Łódź Voivodship.

## RESEARCH RESULTS

In 2016, approx. 6.3% of all people were commuting in the Łódź Voivodship. They were most often people living in rural communes, which were not offering expected conditions in terms of satisfying needs related to employment outside of agriculture. Considering that cities are the centres of concentration of economic and social functions and a significant place for providing public services, it will not be an overstatement to say that they are the main destination of discussed movement.

The factor determining commuting to work is distance. The conditions of commuting are of key significance regarding the possibility of undertaking such distances (availability, the state of road infrastructure, the possibility of using public or private transport, etc.) which result in the readiness of taking up employment in a place other than that of one's residence. According to the research, every third commuter in the UK travels a distance of approx. 50 km one way [Lyons, Chatterjee 2008]. The results of the Polish research in this regard do not deviate significantly from British ones – the acceptable commuting distance is also up to 50 km[3] [Bednarowska, Paweł 2013]. This is also confirmed by the Labour Force Survey of the Polish Central Statistical Office [CSO 2011] or Katarzyna Iwaszko-Nizałkowska, focusing on commuting to work in the Lower Silesian Voivodship [Iwaszko-Nizałkowska 2016].

This was confirmed by testing the road distance of the analysed rural communes of the Łódź Voivodship. Only in the case of 5 of them – Łyszkowice, Domaniewice, Nieborowo, Kutno and Grabów, the distance to the commune of the workplace was over 50 km. The destination of this movement was the capital of the Łódź region. Whereas the smallest distance was recorded in the case of surrounding communes, the residents of which commuted, in almost every case, to the city with which they form areas characterised by similar social, economic and spatial features (so-called functional areas)[3]. Out of 15 communes of this type in the Łódź Voivodship, in 9 the road distance did not exceed 10 km, in 5 – it was between 20 and 30 km and only in 1 (Kutno) amounted to approx. 80 km. However, most of all the examined communes were in the group of commuting to work up to 20 km.

The distance is closely related to travel time (time accessibility measure). It is currently one of the most important elements taken into account in assessing the spatial organisation of socio-economic systems. It depends on many factors resulting from spatial features (e.g. road and rail network coverage, network condition), motivation and purpose of travel (cyclical travel – e.g. to work, school, occasional travel – e.g. to the theatre, doctor, etc.) as well as means of transport (public, private). It is, therefore, necessary to assume some simplifications, the most common of which is the human desire to minimise travel time

[3] In Polish administrative practice, a surrounding commune is defined as a situation in which a city and a rural area, despite their functional relationships and the same name, constitute two separate units of local government. There are 158 such communes across Poland.

Table 3. Classification of examined communes according to road distance and travel time to the workplace

| Groups of communes (n = 49) * | Road distance to the commune of the workplace | Travel time to the commune of the workplace |
|---|---|---|
| Group 1 (10 communes)<br>Łowicz, Sieradz, Skierniewice, Rawa Maz., Radomsko, Zduńska Wola, Łęczyca, Tomaszów Maz., Ozorków, Zapolice | Up to 10 km | Up to 20 min |
| Group 2 (22 communes)<br>Sulmierzyce, Mokrsko, Maków, Siemkowice, Sławno, Moszczenica, Pabianice, Andrespol, Białaczów, Galewice, Pątnów, Wierzchlas, Sędziejowice, Gidle, Wola Krzysztoporska, Ostrówek, Rozprza, Nowe Ostrowy, Głowno, Lgota Wielka, Lubochnia, Paradyż | Up to 20 km | Up to 30 min |
| Group 3 (12 communes)<br>Szczerców, Burzenin, Brzeziny, Lutomiersk, Rząśnia, Gomunice, Kluki, Nowa Brzeżnica, Bełchatów, Zgierz, Rokiciny, Gorzkowice | Up to 40 km | Up to 30 min |
| Group 4 (5 communes)<br>Łyszkowice, Domaniewice, Nieborów, Kutno, Grabów | Over 50 km | Up to 90 min |

* communes were listed incrementally according to the criterion of road distance

Source: own study based on [GUS 2019c]

between the source and destination. The average time spent commuting to work is not the same in all countries. According to the OECD, people spend an average of 20 minutes in Finland, Spain and Sweden commuting one way, while for example in Japan or Turkey it is 40 min. It is estimated that across the world, people commute to work every day for approx. 38 min [OECD 2016]. In Poland, the average commuting time is 40 min and is close to the European average determined to be 42 min[4]. It also does not radically differ from the values recorded in non-European countries.

In the discussed communes, the commuting time to the commune did not virtually take more than 30 minutes. More time was required for employees to travel from Bełchatów to Kleszczów (approx. 50 min) and from Zgierz and Kutno – approx. 40 and 60 min, respectively. The inhabitants of Grabów travelled the farthest, covering a distance of nearly 93 km to Łódź and devoting approx. 80 min (however, it did not exceed the 90-minute limit in any of the cases). It is worth noting movement directions here. The destination for commuting to work was primarily the urban commune, which often forms a functional area with the rural commune. The best examples of this are the aforementioned surrounding communes, the residents of which took up employment in nearby urban communes. However, not all of them show "gravitation towards their cores". This applies to 5 communes – Głowno, Brzeziny, Bełchatów, Zgierz and Kutno, the residents of which chose employment in communes, requiring longer commuting time, but offering more

[4] The "Commute Survey" study conducted by PageGroup (Michael Page) in 11 European countries. Nearly 12,500 respondents answered in the online survey, including 1,072 respondents from Poland.

beneficial employment conditions. It is worth noting that the destination communes of the workplace were also non-urban ones. Namely Stryków, a rural area, and Kleszczów. These are communes "rich" in workplaces. In the first one, there is a modern logistics centre (warehouse and industrial areas). The location at the intersection of the A1 and A2 highways creates very good conditions for the distribution of goods not only in Poland, but also in Europe. On the other hand, Kleszczów has one of the largest lignite opencast mines in Europe, along with a power plant.

The same trend is observed for the other communes. Population movement from rural communes related to employment are directed to economically better developed, urban communes. Łódź, centrally located in the road network of the region, was a workplace for the residents of 10 examined communes, although it was accessible in less than only 30 minutes for two of them – Andrespol and Lutomiersk. Employees living in Domaniewice, Nieborów, Kutno and Grabów had to cover 60 km and more, with time accessibility of over 50 min (in the case of Grabów up to 80 min). The exception is the rural commune of Kleszczów, to which residents of as many as 8 communes came in connection with employment. Road accessibility in Kleszczów was at a level of 30 km, while timewise from 30 to 50 min.

Daily population movement related to employment are determined not only by the possibilities of taking up work in other communes, but also by the possibility of actual movement. Hence, accessibility to transport infrastructure junctions that allow to connect with the network of roads, especially expressways and highways, is becoming extremely important. Szymon Wiśniewski [2016] conducted extensive research in the field of spatial differentiation of the accessibility of the Łódź Voivodship communes to junction elements

Table 4. Directions of commuting to work from the surrounding communes of the Łódź Province

| Commune of residence | Commune of the workplace | Road distance [km to the workplace] | Time of travel [min : sec] |
|---|---|---|---|
| Łowicz (r)* | Łowicz (u)** | 3.45 | 6:53 |
| Sieradz (r) | Sieradz (u) | 3.82 | 7:31 |
| Skierniewice (r) | Skierniewice (u) | 4.24 | 9:21 |
| Rawa Maz. (r) | Rawa Maz. (u) | 4.29 | 10:19 |
| Radomsko (r) | Radomsko (u) | 4.93 | 10:44 |
| Zduńska Wola (r) | Zduńska Wola (u) | 5.57 | 12:19 |
| Łęczyca (r) | Łęczyca (u) | 6.68 | 11:23 |
| Tomaszów Mazowiecki (r) | Tomaszów Maz. (u) | 6.94 | 15:39 |
| Ozorków (r) | Ozorków (u) | 8.70 | 17:10 |
| Pabianice (r) | Pabianice (u) | 13.45 | 15:48 |
| Głowno (r) | Stryków, rural area | 17.41 | 23:01 |
| Brzeziny (r) | Łódź (city with district rights) | 24.74 | 32:16 |
| Bełchatów (r) | Kleszczów (r) | 30.36 | 46:08 |
| Zgierz (r) | Łódź (city with district rights) | 30.60 | 37:38 |
| Kutno (r) | Łódź (city with district rights) | 76.14 | 57:16 |

* (r) designation of the rural commune, ** (u) designation of the urban commune

Source: own study based on [GUS 2019c]

of road infrastructure. On their basis, he identified areas with particularly favourable conditions for accessibility to the road network[5]. They are made up of communes located in the northern part of the voivodship and a group from its eastern part. The studied communes ranked high – that is, they achieved a high level of transport accessibility of existing junction elements of the road network, among others Rawa Mazowiecka, Sieradz, Łask (they were in the group of communes with the shortest road distance and the shortest travel time to the workplace commune – Table 5). They owe their good situation to the proximity of trunk roads and an expressway.

On the other hand, there were communes that fell significantly below in terms of the level of accessibility to the road network, e.g. Radomsko, Działoszyn or Domaniewice, Łyszkowice (Łyszkowice and Domaniewice were placed in the group of communes with the longest road distance and the longest travel time to the workplace commune). As indicated by Szymon Wiśniewski, in their case, we can see, among others, the barrier character of the highway route, resulting from the location of exits in places limiting the possibility of using this type of infrastructure for residents of communes having a short physical distance to it [Wiśniewski 2016]. Łódź is also characterised by relatively low accessibility, despite access to numerous junctions/intersections. This state of affairs is caused by the large number of inhabitants per junction elements of road infrastructure [Wiśniewski 2016].

Table 5. Selected destinations for population movement in connection with employment

| Commune of residence* | Range of road distance from the commune of residence to the commune of the place of work [km] | Range of travel time [minutes] | Commune of the workplace |
|---|---|---|---|
| Andrespol, Brzeziny, Lutomiersk, Zgierz, Rokiciny, Łyszkowice, Domaniewice, Nieborów, Kutno, Grabów | 13.59-92.71 | 20-80 | Łódź |
| Sulmierzyce, Lgota Wielka, Szczerców, Rząśnia, Gomunice, Kluki, Bełchatów, Gorzkowice | 10.95-33.93 | 20-55 | Kleszczów |
| Moszczenica, Wola Krzysztoporska, Rozprza | 12.65-16.88 | 20-30 | Piotrków Trybunalski |
| Mokrsko, Pątnów, Wierzchlas, Ostrówek | 11.11-16.42 | 14-25 | Wieluń, city |
| Sławno, Białaczów, Paradyż | 12.60-19.74 | 16-30 | Opoczno, city |
| Zduńska Wola, Zapolice, Sędziejowice | 5.57-15.42 | 13-20 | Zduńska Wola |

* communes are listed according to the criterion of road distance to the commune of the workplace, from the lowest to the highest value in the indicated range

Source: own study based on [GUS 2019c]

[5] The analysis took those points of space into account where highways, expressways, publicly accessible trunk roads and province roads connected.

Table 6. Forecast balance of migration of selected rural communes of the Łódź voivodship

| Commune of residence | Index of population movement related to employment | Forecasted average balance of internal migration in 2017-2030 | Direction of population movement related to employment |
|---|---|---|---|
| Zgierz | 0.27 | + 202 | Łódź |
| Bełchatów | 0.21 | + 144 | Kleszczów (r) |
| Andrespol | 0.26 | + 128 | Łódź |
| Lutomiersk | 0.44 | + 97 | Łódź |
| Pabianice | 0.65 | + 95 | Pabianice (u) |
| Zduńska Wola | 0.54 | +60 | Zduńska Wola (u) |
| Zapolice | 0.21 | - 33 | Zduńska Wola (u) |
| Lubochnia | 0.25 | - 60 | Tomaszów Maz. (r) |

Signs: (r) rural commune, (u) urban commune

Source: own study based on [GUS 2017]

The factors presented above determine the predominance, or lack thereof, of specific communes as potential sites for both investment (workplace creation) and residence. This will be reflected in the potential population growth, which also has its source in the form of internal migration. Among the discussed rural communes, Kleszczów, next to the rural communes of Bełchatów, Andrespol, Lutomiersk, Zgierz and Pabianice, is distinguished by one of the higher forecasted balances of internal migration in the years 2017-2030. It is noteworthy that the communes of Zgierz, Bełchatów and Andrespol achieved one of the lower values of the employment-related population movement index (a higher employment-related outflow than inflow was recorded). It can, therefore, be presumed that the increase in population in these communes will be caused by other factors than those resulting from the attractiveness of the labour market. Most likely, the potential increase in the number of inhabitants will be a consequence of the settlement of the inhabitants of Łódź in them (applies to Zgierz and Antresol) or Bełchatów (applies to the rural commune of Bełchatów). Undeniably, they will become members of a given local community, however using the labour market and, consequently, the public services of "their" movement destinations – Łódź or other urban centres.

## CONCLUSIONS

Considerations concerning commuting to work are multifaceted. In addition, we are dealing with a high dynamicity of changes caused by various factors in this field. Hence, indicating the strength and nature of their impact on the socio-economic transformations of specific areas is not easy. On the other hand, however, it is extremely necessary, though underestimated, from the point of view of creating development policy not only in rural but also urban areas.

Many threads were omitted in the article. It is limited only to identifying, based on available data, the directions of employment-related population movement. The conducted

analysis, although significantly narrowed down, as in other research on the relationships between centres, indicates, above all, the gravitation of economically weaker centres towards those with a stronger economic base.

It is not surprising that they are primarily urban communes, which create the possibility of using much more developed – in terms of quality and quantity, rendered services of both public and commercial nature (education, health care, culture, entertainment, sport, shopping, etc.). Above all, however, they offer wider access to employment in the non-agricultural sector. Therefore, it will not be an overstatement to say that many rural areas have labour markets that cannot provide enough workplaces for their residents, thus forcing commuting to work. With this, cities become a magnet attracting both new residents and "daily" users using its infrastructure and services. In the case of rural areas, shortening the distance to urban centres has become one of the elements of life assessment quality.

However, it should be borne in mind that the impact of urban centres will be limited by distance and travel time. Of course, the further development of a road infrastructure, resulting in an increase in the mobility of residents, will be conducive to increasing the travel distance from the place of residence to the workplace. However, the limiting factor will still be the cost related not only to the movement itself, but also to the loss of time spent on travelling to work. No less important are the transport costs associated with the negative impact of road transport on the environment.

The increase in the mobility of Polish residents in recent decades has undoubtedly been a result of the dynamic development of road infrastructure and, on the other hand, the high accessibility of private means of transport (ease of purchase). This, in turn, has opened new opportunities for professional fulfilment outside of agriculture for rural residents, as part of their daily commute to work in the city. However, decisions about daily commutes to work in the city are closely related to employment prospects. It should be emphasised that the small distance separating the rural area from the city is not a sufficient criterion determining the direction of employment-related movement (the example of the rural commune of Zgierz or Brzezina, the inhabitants of which commute to work to the further located Łódź and not to the nearby urban communes of Zgierz and Brzezina). Underdeveloped cities are not an attractive labour market, and therefore gravitating towards them is a lot rarer than in the case of cities allowing for a proper matching of labour demand and supply.

As already mentioned, commuting cannot only be considered from one perspective. The observed movement of the rural population to cities due to employment have specific consequences both for rural areas themselves and for cities becoming a workplace. In the first case, the "urbanisation" of rural areas may occur, especially those remaining in the circle of settlement interests of city residents. This happens, among others, through strong lobbying of specific particular interests of "new" residents expecting the proper equipment of chosen rural areas with a technical and social infrastructure. In relation to cities, the outflow of the population to other territorial units, unfortunately, does not relieve authorities from the need to secure and develop technical and social infrastructure for those who use it, but do not participate in the costs of its production and maintenance through the system of local taxes (the stowaway phenomenon).

To sum up, employment-related population movement will undoubtedly diversify rural area development patterns. In the discussion, more and more often the issue referring to

the territorial rather than sectorial approach to public policies is raised, in other words to territorially integrated management. The subject of management, in this case, are areas with similar features and social, economic, environmental and spatial bonds (functional areas). Identifying such areas is gaining key importance in light of development policy, as traditional concepts, on which both urban and rural development is based, are closed within administration boundaries and usually do not correspond to actual spatial arrangements [Czamara et al. 2019].

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## PRZEPŁYWY LUDNOŚCI ZWIĄZANE Z ZATRUDNIENIEM NA PRZYKŁADZIE GMIN WIEJSKICH WOJEWÓDZTWA ŁÓDZKIEGO

Słowa kluczowe: samorząd terytorialny, przepływy ludności, zatrudnienie, rozwój obszarów wiejskich

ABSTRAKT

Celem badań była identyfikacja kierunków powiązań funkcjonalno-przestrzennych na podstawie przepływów ludności związanych z zatrudnieniem. Jako podstawę analizy przyjęto dwie bazowe zmienne dostępności: odległość i czas dojazdu. Zakres przestrzenny badania ograniczono do wybranych gmin wiejskich województwa łódzkiego, które charakteryzowały się niskim wskaźnikiem przepływów ludności do pracy, wyrażający stosunek liczby przyjeżdżających do pracy do danej gminy do liczby osób wyjeżdzających z danej gminy do pracy do innych jednostek. Wskaźnik obliczono na podstawie danych GUS dotyczących przepływów ludności. Odległość i czas przejazdu analizowano również na podstawie danych statystycznych GUS w zakresie szacowanej odległości i czasu przejazdu z gminy będącej miejscem zamieszkania do gminy miejsca pracy. Jak wykazała przeprowadzona analiza, odległość i czas dojazdów do pracy praktycznie nie odbiegały od akceptowanych wartości. W niektórych przypadkach mieszkańcy obszarów wiejskich gotowi byli pokonać większe odległości i tym samym poświęcić więcej czasu na dojazd do pracy. Decyzje o dobowych dojazdach do pracy do miasta były powiązane z możliwościami podjęcia zatrudnienia, przy czym niewielka odległość nie była wystarczającym i jedynym kryterium. Miasta słabo rozwinięte nie stają się tym samym mniej atrakcyjne pod względem zatrudnienia. W konsekwencji zainteresowanie nimi potencjalnych pracowników jest znacznie słabsze niż ma to miejsce w odniesieniu do miast pozwalajacych na właściwe dopasowanie popytu i podaży pracy.

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