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## DEMOGRAPHIC POTENTIAL OF SMALL TOWNS OF SILESIAŃ PROVINCE IN THE LAST DECADE OF THE 20<sup>TH</sup> CENTURY

**ABSTRACT.** This paper shows population potential of the towns populated by less than 20,000 people in the period of transformation of the 1990s in the area of SilesiaŃ Province. The analysis was carried out using two parameters. The dynamics of population increase in temporal aspect was determined. This revealed the stagnation of population increase dynamics and evidences of approaching population regress. The influence of natural growth on the size of population was also analysed. This revealed that the population potential of the investigated area shows unfavourable balance of births and deaths. This results in continuous and intensifying decrease of population.

**KEY WORDS:** small towns, population birth rate, population increase.

### INTRODUCTION

The role of human factor in economic development is an extremely important element. It stimulates certain behaviours of population and changes demographic structures. The problems of population processes are therefore associated with economic processes and they act as communicating vessels.

Demographic potential of both towns and rural communes is the basic factor which stimulates their development in general. It is understood as population "force" in numerical sense and in sense of possibilities the population has. Therefore not only the number of inhabitants and size of a town is important, but also demographic features of population such as age, economic structure (which informs about possibilities of production) or education (which evidences qualitative features).

This paper aims to show intensity and directions of demographic potential changes concerning the number of inhabitants and population natural growth in the towns populated by less than 20,000 people in Silesian Province. Because of political transformation that occurred in Poland, the last decade of the 20<sup>th</sup> century (1990–1999) was selected for the investigations.

## DYNAMICS OF POPULATION GROWTH

In terms of population, small towns develop slower than large and medium towns, especially in Silesian Province. This area belongs to most intensively urbanised regions of Poland and number of towns with population of 100,000 and 200,000 is considerable there, taking into account its small area. At the end of 1999, urban settlement system of Silesian Province consisted of 69 towns, included 31 small towns. The latter therefore, make quite a large percentage and their population is in the range from 1,900 to 18,000.

Total population in all small towns of Silesian Province was 270,765 in 1999. As compared to 1990 it increased by 101,415. This however is not associated with people's will to live in small towns, but with the secession and then successive differentiation of larger urban centres. This process, therefore, was caused by administrative changes. The population difference between the largest and the smallest centres reached almost 18,000 (17,974 inhabitants).

The smallest urban centres include Sośnicowice (1,901 inhabitants), Pilica (2,023 inhabitants) and Koziegłowy (2,474 inhabitants). Among all the towns considered, these three centres showed the largest decrease of population. In 1999, as compared to 1990, the dynamics decreased and was in the range from –6.8% to –2.6%. Another seven towns also showed population decrease, but it was smaller, in the range from –1.9% to 0.3%. Thus, 10 towns, i.e. 31% of the towns investigated, showed depopulation trend. It is a permanent decrease. In Koziegłowy, there was a gradual decrease of population since 1990. Similar process is observed in Wojkowice (since 1997), Pilica (since 1994), Sośnicowice (since 1996), Radlin (since 1997) and Radzionków. Decreasing trends are observed also in Szczekociny, Łazy, Toszek and Kłobuck. Despite one-year increasing fluctuations, population decreased and, finally, demographic potential in these towns was lower than in the initial year.

The other 21 towns of Katowice Province showed inconsiderable positive index of dynamic increase, from 0.2% to 17.2%. Only in case of 11 towns, accelerated population growth was observed. This process occurred in Strumień (17.2%), Koniecpol (5.9%), Wilamowice (4.8%), Wisła (3.4%), Szczyrk (2.5%), Ogrodzieniec (2.5%), Łędziny (5.2%) and Orzesze (4.1%). In fact, the increase dynamics is so low in most of the towns considered that it does not influence the size of a town, but it remains town's population stable.

In the period of 10 years, mean coefficient of population increase amounted to mere 0.14%. Therefore, the smallest towns of Silesian Province show very slow demographic increase. "Creeping" dynamics shows decreasing trends. In 1992, as compared to 1991, it amounted to 0.21%, three years later to 0.18% and since 1996 it was negative (fig. 1).

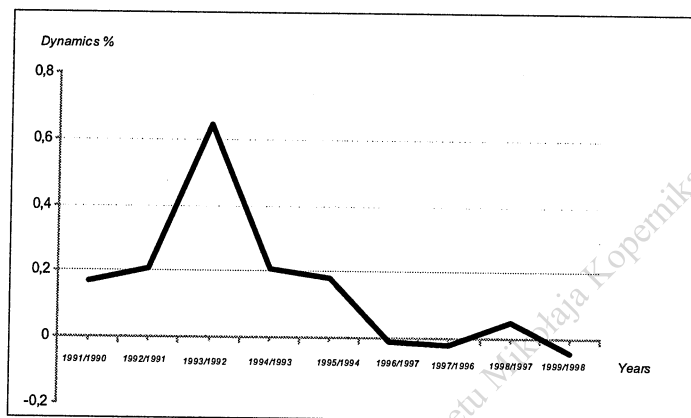


Fig. 1. Dynamics of average annual increases of population in the period 1990–1991 in 31 small towns (less than 20,000 inhabitants) of Silesian Province

Source: Author's calculations.

During the last ten years, demographic potential of the investigated towns did not show any radical changes and, in fact, these towns remained stable with dangerously small percentage of slight surplus as compared to the beginning of transformation period, i.e. 1990. Over 30% of the investigated towns shows signs of regress (permanent loss) and 38% shows signs of approaching population regress (in terms of number of inhabitants).

## NATURAL GROWTH – MEASURE OF DEMOGRAPHIC POTENTIAL

Basic information on natural movement is included in the record of births, deaths, marriages and divorces.

The analysis of parameters of natural movement balance (births and deaths) in the 1990s in towns populated by less than 20,000 (i.e. towns, which in the town structure belong to the smallest settlement units) shows worrying trends of the approaching regress. This influences depopulation of towns in the area investigated.

As early as in the beginning of the 1990s, the symptoms of demographic regress appeared, however positive birth rate still occurred in over 70% of the inve-

stigated towns (1990 and 1991). In the succeeding years 1992 and 1993, a positive birth rate clearly decreased to 62% and in 1994 to 52%. In 1998, there was the smallest percentage of towns, where births predominated deaths. Among 31 towns, only in 9 of them, more children were born than inhabitants died (fig. 2).

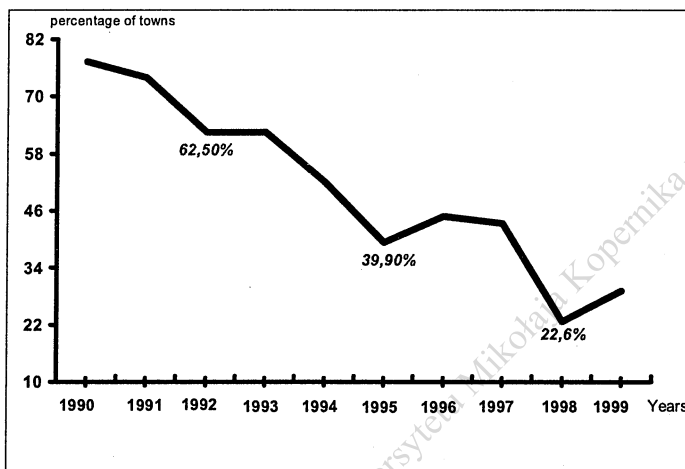


Fig. 2. Percentage of small towns showing positive natural growth in the period 1990–1999 in Silesian Province  
Source: Author's calculations.

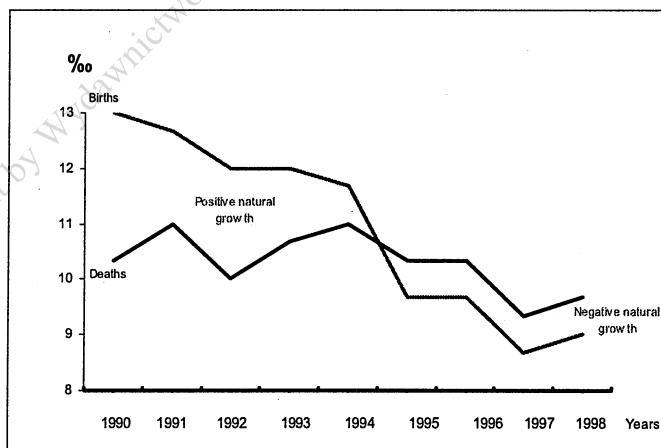


Fig. 3. Natural movement in small towns of Silesian Province in the period 1990–1999  
Source: Author's calculations.

This clear decreasing trend reveals that the towns studied enter the age of demographic modernisation – the 5<sup>th</sup> phase of demographic transition (*Wielka Encyklopedia...*, 1998). It means that population of a given town, with slow decrease of a death rate, is accompanied by sudden decrease of a birth rate (fig. 3). The phase of modernised society shows very slow values of natural growth. This is caused mainly by changeability of the birth rate, which may remain negative for a long time or oscillate around zero.

Figure 3 shows the course of natural movement in the last decade of the 1990s. There is a clear break up in 1994 and 1995. Since then, the area studied (which includes almost 45% of the towns of Silesian Province) showed negative population values. Taking into account that these processes are permanent in small towns, it may be assumed that they occur more intensively in other urban centres. This is however an assumption which requires verification. The fact is, however, that the process of levelling of birth and death numbers occurred in 1999 (Eberhardt, 2001).

New population trends should oblige to prepare a new pronatalistic policy, which would aim to the increase of a birth rate. In a long-term period, low procreation is a very unfavourable factor of social-economic development.

The changes, which occurred during these 10 years, have occurred for the first time since the Second World War. Analysing new trends of natural movement in Poland, Prof. P. Eberhardt (2001) says: "Evolution of natural movement in Poland occurred in a similar way as it occurred in rich West European countries. It should be underlined, however, that the rate of changes in Poland was faster, especially in case of a birth rate".

The towns studied represent the leading examples of centres, which show the smallest coefficients of natural growth in Poland. Four towns of this region showed the smallest coefficients in Poland in 1998. These include Sośnicowice –8,8‰ (6th position in Poland), Wojkowice, –5,6‰ (25th position), Siewierz –4,9‰ (39th position) and Łazy –4,4‰ (48th position). The smallest birth rate occurred in Krasnobród –11,8‰ in Lublin Province (*Miasta...*, 1998).

Population dynamics may also be considered in spatial (chorological) aspect. Table 1 shows differentiated parameters of natural growth coefficient according to units investigated and years. It reveals that Bielsko-Biała subregion has the most favourable development parameters. The towns of Sub-Carpathian region showed positive natural growth during the last 10 years, and two of them, Skoczów (Silesian Foothills) and Strumięń (Pszczyzna Plain), did not show evidences of regress. Similar situation occurs in small towns of Małopolska Province (Kwiatk-Sołtys, 2000).

The area of former Częstochowa Province shows quite different features, because most of the towns show increasing negative natural balance. This process occurred in this area as early as in 1992. Most of small towns of this region recorded then negative balance of births and deaths. Woźniki, Koziegłowy, Blachownia and Szczekociny belong to the areas of permanent depopulation.

Table 1. Coefficient of natural growth in small towns of Silesian Province in the period 1990–1999

Towns	Coefficient of natural growth %									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Skoczów	3,1	1,3	2,0	1,1	2,7	0,5	0,9	0,7	1,6	0,8
Strumień	3,1	4,4	5,2	4,8	11,3	0,9	5,3	1,2	5,0	0,9
Szczyrk	6,8	0,0	2,8	3,7	1,8	-1,3	0,2	1,3	-0,2	0,2
Ustroń	4,2	1,4	0,9	3,5	1,2	-1,2	-0,4	-0,5	-1,2	-1,6
Wilamowice	4,9	6,0	1,2	7,1	4,4	0,7	3,3	-1,5	3,3	2,2
Wisła	3,5	5,4	4,2	3,9	3,0	-1,0	2,8	3,9	-0,1	0,6
<i>Average in Bielsko-Biała Province</i>	4,3	3,1	2,7	4,0	4,1	-0,2	2,0	0,9	1,4	0,3
Blachownia	1,1	0,4	-0,5	-2,4	-2,1	-0,8	-2,9	-3,0	-2,5	-2,1
Kalety	1,9	5,7	-0,2	1,1	-0,7	-3,1	0,3	-2,4	-2,0	-1,2
Kłobuck	4,7	4,2	4,8	2,6	2,3	-0,4	-0,3	0,7	-1,3	-0,1
Konieczpol	5,2	2,0	5,0	4,2	-0,4	2,2	2,5	-0,7	-0,4	0,9
Koziegłowy	1,9	-9,8	-5,0	-6,6	-3,1	0,0	-8,2	-6,0	-1,6	-4,0
Krzepice	4,1	3,0	1,5	1,7	1,7	3,4	0,4	3,8	-4,0	-4,2
Szczekociny	7,9	1,1	-1,6	2,0	-0,5	-0,7	-0,7	-5,4	-2,3	-4,1
Woźniki	-2,4	-3,5	-2,4	-2,6	-1,1	-2,0	-1,3	-1,3	-2,9	2,0
Żarki	4,0	0,9	6,2	-2,4	-1,0	1,9	-1,3	-0,7	-3,7	-2,3
<i>Average in Częstochowa Province</i>	3,2	0,4	0,9	-0,3	-0,5	0,1	-1,3	-1,7	-2,3	-1,7
Imielin						-2,1	-0,4	0,0	-1,6	-0,8
Kuźnia Raciborska	3,2	6,6	8,4	1,2	2,6	3,5	2,6	3,0	4,0	-2,3
Lędziny		3,7	7,2	4,7	3,9	5,0	4,0	2,2	1,4	0,5
Łazy	1,9	4,5	3,8	-3,0	-0,3	-4,9	-5,6	-5,0	-4,4	-0,8
Miasteczko Śląskie						-1,6	-0,1	0,5	0,8	1,6
Ogrodzieniec	-5,0	-2,5	-0,2	-2,0	-7,7	-5,4	-1,6	0,9	-1,8	-3,5
Orzesze	1,7	1,3	-1,2	3,4	1,4	0,8	2,0	0,8	-1,1	-0,4
Pilica					-0,9	-9,3	-5,6	-9,5	-3,3	-6,7
Poręba	-2,7	-0,2	-3,6	-1,7	-4,0	-3,5	-5,0	-2,3	-1,2	-3,7
Pszów						0,5	0,9	0,7	-0,1	-0,4
Radlin								2,2	1,7	-0,3
Radzionków									-2,6	-2,2
Siewierz	0,6	-3,3	0,0	1,6	-2,5	-2,0	-2,3	-2,7	-4,9	-5,8
Sośnicowice							-3,1	-7,7	-8,8	-3,7
Toszek	4,3	2,7	1,4	-0,8	4,1	1,2	1,6	-1,8	-4,1	1,8
Wojkowice			0,6	-2,5	-6,8	-4,7	-7,0	-5,0	-5,6	-3,7
<i>Average in Katowice Province</i>	0,6	1,6	1,8	0,1	-1,0	-1,7	-1,4	-1,6	-2,0	-1,9

Source: Author's calculations.

Another area is Katowice subregion, which contains 16 towns populated by less than 20,000 (former Katowice Province). There is a problem in the analysis of population aspects of these towns, because most of them represent restitution towns, i.e. the towns, which used to be districts of other towns and successively were separated from them as independent urban units. It is characteristic that most of the "new towns" shows negative coefficient of a natural growth, which would suggest that also as districts of eg. Mysłowice (Imielin), Zawiercie (Pili-ca), Będzin (Wojkowice), Gliwice (Sośnicowice) or Bytom (Radzionków) they revealed loss in population potential due to a low birth rate. There are two exceptions, Łędziny and Kuźnia Raciborska. Łędziny is an important centre of mining with "Ziemowit" Coal Mine, which, as one of few coal mines in the Province, has not reduced employment and has shown good financial performance. This resulted in young population structure and high natural growth coefficients until 1996. Kuźnia Raciborska is an urban-rural commune influenced by Opole Silesia. This town services the adjacent agricultural areas. It is difficult, however, to explain univocally high procreation by 1998. Presumably it was influenced by culture and family traditions.

## CONCLUSIONS

The demographic statistics of small towns of Silesian Province did not reveal favourable trends. Demographic potential of this area shows permanent and intensifying decrease of inhabitants' number. This concerns almost the whole towns studied. The analysis revealed that size potential of these towns is endangered. Depopulation processes result from unfavourable balance of births and deaths. New trends occurred in the area studied as early as in 1995, whereas in other parts of Poland they were recorded in 1999. Thus, the last decade of the 20<sup>th</sup> century not only revealed the regress, but also showed that the smallest towns of Silesian region enter a new demographic phase.

Some thoughts should be given to reasons of so intensive and unfavourable population changes. According to the Author, this is associated with changes in the life style of modern society that enter the procreation age, and also with impoverishment of large part of Polish society, including inhabitants of Province. The transformation of economy and the transition from central-planned economy to free-market economy does not concern only economic sphere, but also demographic sphere. These processes penetrate each other and unfavourable population trends represent one of many other effects of these transformations. Different organisation of life style, professional jobs of women, solo proprietorship in business, problems of employment, financial difficulties and incompetence in finding your own place in new reality – these are only some factors influencing small number of children in families and mitigation of demographic potential.

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## POTENCJAŁ LUDNOŚCIOWY MAŁYCH MIAST WOJEWÓDZTWA ŚLĄSKIEGO W OSTATNIEJ DEKADZIE XX WIEKU

### STRESZCZENIE

Artykuł ukazuje potencjał ludnościowy miast do 20 tysięcy mieszkańców w okresie transformacji lat dziewięćdziesiątych na terenie województwa śląskiego. Analizy dokonano opierając się na dwóch parametrach. Określono dynamikę wzrostu ludności w ujęciu czasowym i stwierdzono stagnację oraz oznaki zbliżającego się regresu ludnościowego. Przeanalizowano także wpływ przyrostu naturalnego na wielkość populacji. Na tej podstawie udowodniono, iż potencjał badanego obszaru charakteryzuje się niekorzystnym bilansem urodzeń i zgonów. Następstwem tego procesu jest ciągły i pogłębiający się ubytek ludności.