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DEMOGRAPHIC TRANSFORMATIONS OF THE LARGEST TOWNS OF SILESIA PROVINCE

Introduction

Large towns represent the leading link in the settlement structure of a country, both on national and regional scales. The consequences of political and economic transformations, which took place in the 90s of the 20th century, most intensively occurred in large towns. They included a decrease in the dynamics of population transformations and even occurrence of regression processes, demographic aging, lowering of professional activity and increase in unemployment. Therefore the subject of this research are the largest towns of Silesian Province, each populated by over 50 thousand inhabitants.

Analysing the social-demographic transformations in Katowice region (usually assumed as the former province or Katowice conurbation together with Rybnik and its surrounding) has a long-lasting interdisciplinary tradition. This results from a high population density in this area, economic position of this region, or necessity to develop deglomeration activities within the first regional plan after 1945. The most important attempts to discuss these problems include Frąckiewicz [1980, 1982, 1984], Kłosowski and Runge [1999a,b], Magda and Runge [1990], Rajman, [1994, 1997], Runge [1996, 1998a,b, 1999, 2000], Runge and Kłosowski [2000] and Wódz [1984]. The introduction of a new administrative division in 1999 and change of the territorial shape of the province caused the present Silesian Province to be represented by a population of 5 million (earlier less than 4 million), who inhabit the area of 12,309 km² (earlier 6,650 km²). The change of the territorial shape from parallel shape into meridian one (similar to that which was valid before

1975) caused the settlement system of this area to change significantly. Apart from two dominants in this system, *i.e.* Katowice conurbation and Rybnik conurbation, the present province embraces additionally two large sub-regional centres, which used to be the capitals of former provinces (Bielsko-Biała and Częstochowa).

The administrative changes were accompanied not only by decreasing population dynamics but also by changes of towns' or districts' position in creation of the actual growth in the province [Runge, 1999]. The region, which used to attract thousands of immigrants due to beyond-local importance of the industry located in this area, became a problem region and instead of immigration-absorptive it became an emigration-generating area. This and other trends of social-economic transformations force to pay more attention to the position of the largest towns in the region, which used to be assumed as motorial in population transformation. This is therefore the aim of this paper.

Size differentiation of large towns in Silesian Province

In 2000, Silesian Province included 23 towns, each populated by over 50 thousand inhabitants. In total they concentrated 3.093 million of the population, *i.e.* 63.8% of the population of the whole province and 80.4% of the total number of urban population. As compared to 1975, the number of large towns did not change, but some displacement occurred in this group itself. In 1983, Żory joined the group of large towns and in 1997 Wodzisław Śląski left the group. Therefore in the period 1983–1996 in Silesian Province, there were 24 towns with a population exceeding 50 thousand. This group of towns showed significant differentiation in terms of population number (Table 1). It included the following towns:

- with a population over 300 thousand – Katowice,
- with a population between 200 and 300 thousand – Częstochowa, Sosnowiec, Gliwice, Bytom,
- with a population between 100 and 200 thousand – Zabrze, Bielsko-Biała, Ruda Śląska, Rybnik, Tychy, Dąbrowa Górnicza, Chorzów, Jastrzębie Zdrój,
- with a population between 50 and 100 thousand – Jaworzno, Mysłowice, Siemianowice Śląskie, Żory, Tarnowskie Góry, Piekary Śląskie, Racibórz, Będzin, Świętochłowice, Zawiercie.

As regards the size structure, the trend was observed to level the proportions in the group of the largest towns, which is seen in a slight

Table 1. Size structure of towns with a population over 50 thousand in Silesian Province in the period 1975–2000

| Size class of towns-population in thousands | 1975 | | | | 2000 | | | | Rate of increase in the period 1975–2000 |
|---|-----------------|-------|-------------------------|-------|-----------------|-------|-------------------------|-------|--|
| | Number of towns | [%] | Population in thousands | [%] | Number of towns | [%] | Population in thousands | [%] | |
| Over 300 | 1 | 4.4 | 343.7 | 11.7 | 1 | 4.4 | 340.5 | 11.0 | -0.93 |
| 200–300 | 3 | 13.0 | 638.4 | 21.8 | 4 | 17.4 | 908.0 | 29.4 | 42.20 |
| 100–200 | 9 | 39.1 | 1270.1 | 43.3 | 8 | 34.7 | 1158.3 | 37.4 | -8.80 |
| 50–100 | 10 | 43.5 | 679.0 | 23.2 | 10 | 43.5 | 686.3 | 22.2 | 1.09 |
| Total | 23 | 100.0 | 2931.2 | 100.0 | 23 | 100.0 | 3093.1 | 100.0 | 5.52 |

Source: The authors' elaboration based on statistical data from Statistical Office in Katowice.

decrease in the rate of Katowice population and decrease in the population rate in towns populated by 200–300 thousand inhabitants.

Dynamics of population changes

In the period 1975–2000 in 23 towns studied, the population rose from 2,931.2 thousand to 3,093.1 thousand, *i.e.* by 5.5%. This trend resulted from overlapping continuation of the low phase of demographic cycle and the consequences of political, economic and social transformations of the turn of the 80s and 90s [Runge, 1999]. The dynamics of these changes was spatially differentiated (Table 2).

Żory, as a town with the fastest growth rate (population increase by 160.0%), became a “bedroom” of the developing Rybnik Coal Region. Also Bielsko-Biała, Częstochowa, Dąbrowa Górnicza, Racibórz and Sosnowiec showed a rapid increase rate. The stagnation towns included Świętochłowice, Katowice, Zabrze, Ruda Śląska and Tychy. A considerable population decrease, on the other hand, occurred in Wodzisław Śląski – by as much as 51.5%. Also Chorzów, Bytom and Będzin showed demographic regress. Many of these towns underwent at that time impulsive administration changes that consisted in exclusion of some districts, which became independent settlement units. The following units were excluded from Wodzisław Śląski: in 1992 – Rydułtowy (23.9 thousand inhabitants), in 1995 – Pszów (14.9 thousand inhabitants) and Marklowice (5.1 thousand inhabitants) and in 1997 – Radlin (18.4 thousand inhabitants). In consequence, Wodzisław Śląski populated by 111.7 thousand inhabitants in 1990 lost (as a result of the exclusions) over 50% of its population and dropped out of the group studied. It stayed slightly below the lower limit of this size class (50 thousand inhabitants). Similarly, in 1992, Wojkowice was excluded from Będzin (a decrease by 10.3 thousand inhabitants).

The towns of the Upper Silesian conurbation showed in the period studied only a slight increase in the population: from 2,198.6 thousand to 2,228.6 thousand, *i.e.* by 1.4%. The towns of Rybnik conurbation were developing faster – the population increase there ranged from 328.8 thousand to 360.3 thousand, *i.e.* by 9.6%. There followed a dynamic growth of towns located between these areas, *i.e.* Bielsko-Biała and Częstochowa, where the population increased from 321.2 thousand to 434.9 thousand, *i.e.* by 35.4%. This situation resulted from the settlement system in the areas located south and north of Katowice conurbation. In both cases there is a strong social-economic position of sub-regional capitals over other urban centres with the population of several thousand. This is a derivative of historical border location of the region,

Table 2. Population increase rate in towns with a population over 50 thousand in Silesian Province in the period 1975–2000

| Towns with population number over 50 thousand | Increase rate in % 1975 = 100% | Population increase rate % (previous year = 100%) | | | | |
|---|-----------------------------------|--|--------|-------|--------|--------|
| | | Years | | | | |
| | 1975–2000 | 1980 | 1985 | 1990 | 1995 | 2000 |
| Katowice | -0.93 | 3.31 | 2.31 | 0.96 | -4.16 | -3.12 |
| Będzin | -13.47 | 8.59 | 3.19 | -1.56 | -17.26 | -5.19 |
| Bielsko-Biała | 48.31 | 15.95 | 7.42 | 3.06 | -0.49 | -0.60 |
| Bytom | -13.85 | -0.06 | 1.98 | -3.23 | -1.90 | -10.96 |
| Chorzów | -22.96 | -3.99 | -5.41 | -7.11 | -5.06 | -3.81 |
| Częstochowa | 27.57 | 17.15 | 6.14 | 3.55 | 0.46 | -1.38 |
| Dąbrowa Górnicza | 26.05 | 36.87 | -2.38 | -0.87 | -4.69 | -0.15 |
| Gliwice | 6.18 | 0.15 | 6.20 | 2.14 | -0.38 | -1.89 |
| Jastrzębie Zdrój | 10.45 | 8.30 | 2.12 | 3.17 | -0.41 | -1.86 |
| Jaworzno | 13.38 | 3.96 | 7.47 | 3.75 | -1.34 | -1.09 |
| Mysłowice | 10.79 | 11.91 | 10.53 | 6.33 | -14.91 | -0.99 |
| Piekary Śląskie | 5.06 | 3.50 | 6.80 | -0.28 | -2.22 | -2.53 |
| Racibórz | 26.23 | 10.42 | 9.87 | 5.54 | 1.00 | -2.39 |
| Ruda Śląska | 3.08 | 6.33 | 4.39 | 2.98 | -3.02 | -7.02 |
| Rybnik | 30.99 | 11.73 | 12.12 | 4.63 | 0.42 | -0.48 |
| Siemianowice Śl. | 6.08 | 6.91 | 5.67 | -0.40 | -3.73 | -2.07 |
| Sosnowiec | 23.20 | 25.75 | 4.21 | 1.13 | -4.57 | -2.58 |
| Świętochłowice | 0.45 | 0.44 | 3.55 | -0.38 | -1.49 | -1.58 |
| Tarnowskie Góry | 8.22 | 10.40 | 9.28 | 1.56 | -9.62 | -2.28 |
| Tychy | -3.27 | 23.16 | 10.36 | 4.30 | -30.23 | -2.19 |
| Wodzisław Śląski | -51.50 | 3.58 | 3.48 | 2.30 | -38.78 | -27.81 |
| Zabrze | -2.83 | -3.76 | 1.21 | 3.34 | -1.82 | -1.69 |
| Zawiercie | -4.00 | 8.82 | -10.96 | 1.62 | -1.07 | -1.44 |
| Żory | 160.01 | 88.07 | 33.66 | 5.62 | -1.21 | -0.85 |

Source: The authors' elaboration based on statistical data from Statistical Office in Katowice.

where in the north, there was a meeting point of former Russian and Prussian sectors, and in the south, the one of former Austrian and Prussian sectors. A considerable share of agriculture in the economic structure of Częstochowa region and also mountainous or sub-mountainous character of Podbeskidzie did not favour development of medium-sized or large towns. Small centres predominate here. They are located around

Częstochowa in the north and in the south and their location was determined by orography. It should be underlined, that economic investments of the 70s were mainly located in Katowice region, but also in Częstochowa and Bielsko-Biała. This probably deepened the differences in the social-economic development between the capitals of the former provinces and their hinterland.

The demographic transformations of the investigated group of towns occurred with different intensity in time (Table 2): the initial rapid growth rate gradually decreased, which was followed by significant regress. These negative trends slightly weakened in the recent 5-year period.

In the period 1975–1980, quite a large number of towns showed considerable population dynamics. This included towns-bedrooms with dynamic development of housing (Żory by 88.07%, Tychy by 23.16%), towns which gained important industrial investments (Dąbrowa Górnicza by 36.87%), or towns which became the capitals of provinces (Bielsko-Biała by 15.95%, Częstochowa by 17.15%). Also such towns as Sosnowiec, Mysłowice, Rybnik, Racibórz and Tarnowskie Góry showed quite a large population increase. Symptoms of exhaustion of development possibilities were observed in Chorzów, Zabrze and Bytom.

In the next period, *i.e.* 1980–1985, the rate of demographic development distinctively decreased. This resulted in a decrease in migration in the period of Marshal Law and an increase in symptoms of an economic crisis. Żory, Rybnik, Mysłowice and Tychy still showed a clear population increase. Apparent collapsing of demographic development occurred in Dąbrowa Górnicza and Zawiercie, but this resulted from the administrative changes consisting in separation of the town of Poręba from Zawiercie in 1982 and Sławków from Dąbrowa Górnicza in 1984. Demographic regress still occurred in Chorzów.

In the period 1985–1990, population stagnation occurred in most of the towns. A slight increase in population occurred only in Mysłowice, Żory and Racibórz. Population decrease was observed in Będzin and Bytom. The largest increase still occurred in Chorzów.

The overlapping of the consequences of social-political transformations, functioning of local government and collapse of the job markets to date influenced stagnation and regress of population of the investigated towns in the period 1990–1995. The process of separation of new settlement units from large towns also considerably influenced the regress of population. In 1991, Tychy was divided into 3 towns and 3 districts (a decrease in town population by 53.0 thousand inhabitants). In 1995, Miasteczko Śląskie separated from Tarnowskie Góry (population decrease by 5.5 thousand) and also Imielin separated from Mysłowice. Other towns showed a slight fall in the population decrease.

Table 3. Classification of towns populated by over 50 thousand inhabitants in Silesian Province according to factors of demographic development in the period 1975–2000

| Type of actual increase | 1975 | | 1980 | | 1985 | | 1990 | | 1995 | | 2000 | |
|-------------------------|------|--|------|---|------|--|------|---|------|---|------|--------|
| | No* | Towns | No* | Towns | No* | Towns | No* | Towns | No* | Towns | No* | Towns |
| A (N – W) | 2 | Piekary Śląskie Świętochłowice | 5 | Będzin Chorzów Jastrzębie Zdr. Wodzisław Śląski Zabrze | 3 | Katowice Bytom Jastrzębie Zdrój | 1 | Wodzisław Śl. | 4 | Jaworzno Racibórz Wodzisław Śl. Żory | 1 | Rybnik |
| B (N > W) | 8 | Bytom Dąbrowa Górń. Jastrzębie Zdr. Jaworzno Racibórz Rybnik Tarnowskie Góry Zabrze | 6 | Bytom Częstochowa Gliwice Jaworzno Ruda Śląska Tarnowskie Góry | 13 | Bielsko-Biała Częstochowa Dąbrowa Górń. Gliwice Jaworzno Racibórz Rybnik Ruda Śląska Tarnowskie Góry Tychy Wodzisław Śl. Zabrze Żory | 6 | Jastrzębie Zdr. Jaworzno Rybnik Tarnowskie Góry Tychy Żory | 2 | Mysłowice Rybnik | | |

Table 3. Contd.

| Type of actual increase | 1975 | | 1980 | | 1985 | | 1990 | | 1995 | | 2000 | | |
|-------------------------|------|--|------|--|------|--|------|--|------|------------------|------|---|--|
| | No* | Towns | No* | Towns | No* | Towns | No* | Towns | No* | Towns | No* | Towns | |
| C (N < W) | 14 | Katowice Będzin Bielsko-Biała Chorzów Częstochowa Gliwice Mysłowice Tychy Ruda Śląska Siemianowice Śl. Sosnowiec Wodzisław Śl. Zawiercie Żory | 12 | Katowice Bielsko-Biała Dąbrowa Gór. Mysłowice Piekary Śląskie Racibórz Rybnik Sosnowiec Świętochłowice Tychy Zawiercie Żory | 6 | Będzin Mysłowice Piekary Śląskie Siemianowice Śl. Sosnowiec Zawiercie | 8 | Bielsko-Biała Bytom Częstochowa Gliwice Mysłowice Racibórz Ruda Śląska Zabrze | 1 | Bielsko-Biała | | | |
| D (-N < W) | | | | | | | 6 | Dąbrowa Gór. Piekary Śląskie Siemianowice Śl. Sosnowiec Świętochłowice Zawiercie | | | 1 | Zabrze | |
| E (-N > W) | | | | | | | 1 | Katowice | 1 | Siemianowice Śl. | 5 | Chorzów Dąbrowa Gór. Mysłowice Piekary Śl. Świętochłowice | |

Table 3. Contd.

| Type of actual increase | 1975 | | 1980 | | 1985 | | 1990 | | 1995 | | 2000 | |
|-------------------------|------|-------|------|------------------|------|----------------|------|---------|------|--|------|---|
| | No* | Towns | No* | Towns | No* | Towns | No* | Towns | No* | Towns | No* | Towns |
| F (-N-W) | | | | | 1 | Chorzów | 1 | Chorzów | 5 | Będzin Częstochowa Dąbrowa Górna. Świętochłowice Zawiercie | 8 | Będzin Bytom Częstochowa Katowice Siemianowice Śl. Sosnowiec Tarnowskie Góry Zawiercie |
| G (-N-W) | | | | | 1 | Świętochłowice | 1 | Będzin | 6 | Katowice Bytom Chorzów Piekary Śląskie Ruda Śląska Zabrze | 2 | Jaworzno Ruda Śląska |
| H (N-W) | | | 1 | Siemianowice Śl. | | | | | 4 | Gliwice Jastrzębie Tarnowskie Góry Tychy | 5 | Bielsko-Biała Jastrzębie Zdrój Tychy Wodzisław Śl. Żory |

Gliwice – transitional type G-F

Racibórz – transitional type G-H

*Number of towns

Source: The authors' elaboration based on statistical data from Statistical Office in Katowice

In the period 1995–2000 all the towns studied showed a population decrease, but in most of them the rate of this decrease distinctively diminished. The trend of a further decrease in the demographic regress is still observed in Bytom and Ruda Śląska.

Migrations

An essential element influencing demographic transformation of a given area are migrations. The peak intensity of this phenomenon was observed in 1980, when 107.0 thousand people immigrated to Silesian Province and 73,0 thousand emigrated. Since the mid 90s, Silesian Province has not been an immigration area any more, and it became an emigration area as it shows a negative migration balance. In 2000, immigration amounted to 43.7 thousand people, whereas emigration was 55.9 thousand. Similar inversion of trend occurred in the case of large towns of Silesian Province. The attention should be paid to the increasing emigration abroad. This emigration amounted to almost 10 thousand inhabitants in 1998 and as many as 87.2% of them came from the towns populated by over 50 thousand.

In 1975 large positive values of migration balance occurred in Żory, Bielsko-Biała, Tychy and Gliwice, whereas negative values occurred in Świętochłowice and Piekary Śląskie. In the 80s, the majority of towns showed a negative migration balance. In the 20s, slight positive migration balance occurred in some towns: Dąbrowa Górnicza, Chorzów, Mysłowice, Piekary Śląskie, Świętochłowice and Zabrze. Taking into account migration balance and natural growth, it may be noticed in Webb's [1963] classification of types of actual growth, that in the period 1975–1980, all the towns studied represented three types and their number increased in time from type A through B to C (Tab. 3). These types included A – towns where natural growth exceeded immigration loss, B – towns with domination of natural growth over immigrations, C – towns with domination of immigration over natural growth. The exception was Siemianowice Śląskie (type H – domination of emigration over natural growth). In the succeeding years there was an increase in differentiation of towns in terms of their participation in certain types. In 1985, the most numerous group represented the towns which belonged to type B; in 1990 the towns which belonged to all types, especially C, B and D (domination of immigration over natural loss); in 1995 type G occurred (domination of emigration over natural loss), and also type F (domination of natural loss over emigration), and type H (domination of emigration over natural growth). The actual loss is even better visible in 2000 – there is lack of types B and C, whereas E and F represent the

most frequent types. Until 1990, most of the large towns showed their actual growth, which in the period 1975–1980, was influenced by migration and in the period 1980–1985 by demographic explosion. In the period 1995–2000, most of towns showed actual loss, which was first influenced by negative migration balance (domination of types G and H in 1995) and then by natural movement (demographic low) – in the 2000 ‘domination of types E and F.

Gender and age structure

Structures of sex and age are essential features influencing the dynamics of population transformations. In 1998, in the whole of Silesian Province 105.7 women fell per 100 men, whereas in the towns with a population over 50 thousand, the ratio was 107.1 women per 100 men. This value shows an unbalanced sex structure. Feminisation index is especially large in the following towns: Katowice, Dąbrowa Górnicza, Jastrzębie Zdrój, Jaworzno, Mysłowice, Ruda Śląska, Rybnik, Tychy, Wodzisław Śląski and Żory. The domination of men in the gender structure occurs in Dąbrowa Górnicza and Jastrzębie Zdrój. In the period 1975–1998, a slight but permanent increase in feminisation occurred within the society of the region and also in the studied group of large towns.

An analysis of the age of the population of Silesian Province shows an increasing process of demographic aging (Table 4). The rate of the population at the age of 60 and more increased from 15.0% in 1990 to 16.4% in 1998 (in Poland from 13.5% to 15.7%). The largest values are recorded in Chorzów (18,6%), Będzin (18,2%), Częstochowa (17,4%) and Katowice (17,3%); the smallest values occur in Żory (6,7%), Jastrzębie Zdrój (9,4%), Tychy (12,9%) and Rybnik (13,3%). Assuming the value of 12% as the beginning of an old age, only Żory and Jastrzębie Zdrój are not included in this group. Moreover, there is a domination of women in younger and younger age groups.

The hitherto dominating trends of transformations in the level of population dynamics and transformations of sex and age structure will influence future demographic-social characteristics of the examined area. According to a prognosis published by the Main Statistical Office, the population of Silesian Province will decrease from 4,882 million in 1998 to 4,606 million in 2030. The largest loss will occur in the age groups 0–17 and 18–44 and there will be an increase in the population number within the age group over 45. This will result from aging of the demographic explosion of the 50s. The situation of individual towns including those with a population over 50 thousand inhabitants will be differentiated.

Table 4. Population according to their age in the towns of Silesian Province with a population over 50 thousand in the period 1975–1998

| Towns | Age groups (years old) | Population in % | | | | | |
|---------------------|---------------------------|-----------------|------|------|------|------|------|
| | | 1975 | 1980 | 1985 | 1990 | 1995 | 1998 |
| Katowice | 0–19 | 25.2 | 25.4 | 27.2 | 27.7 | 26.5 | 24.9 |
| | 20–59 | 60.3 | 60.9 | 58.5 | 57.6 | 57.3 | 57.8 |
| | 60 and more | 14.5 | 13.7 | 14.2 | 14.7 | 16.2 | 17.3 |
| Będzin | 0–19 | 26.5 | 25.8 | 26.3 | 28.7 | 25.6 | 23.5 |
| | 20–59 | 58.0 | 59.5 | 56.2 | 53.9 | 56.7 | 58.3 |
| | 60 and more | 15.1 | 14.7 | 17.5 | 17.4 | 17.8 | 18.2 |
| Bielsko-Biała | 0–19 | 28.7 | 33.2 | 31.9 | 31.9 | 29.5 | 27.0 |
| | 20–59 | 25.4 | 55.2 | 55.7 | 54.5 | 55.5 | 57.2 |
| | 60 and more | 13.0 | 11.6 | 12.5 | 13.6 | 15.0 | 15.9 |
| Bytom | 0–19 | 29.4 | 29.1 | 29.4 | 30.4 | 28.6 | 26.6 |
| | 20–59 | 57.4 | 59.0 | 49.3 | 57.1 | 57.3 | 57.9 |
| | 60 and more | 13.2 | 11.9 | 21.3 | 12.5 | 14.1 | 15.4 |
| Chorzów | 0–19 | 26.3 | 25.7 | 26.2 | 26.2 | 24.8 | 23.7 |
| | 20–59 | 58.6 | 59.6 | 51.2 | 51.2 | 55.4 | 57.7 |
| | 60 and more | 15.1 | 14.7 | 22.7 | 16.5 | 19.8 | 18.6 |
| Częstochowa | 0–19 | 29.2 | 29.3 | 29.3 | 29.7 | 27.8 | 25.7 |
| | 20–59 | 56.5 | 57.1 | 56.5 | 54.8 | 55.6 | 56.9 |
| | 60 and more | 14.4 | 13.6 | 14.3 | 15.5 | 16.6 | 17.4 |
| Dąbrowa Górna | 0–19 | 26.7 | 24.5 | 28.9 | 30.6 | 29.3 | 26.1 |
| | 20–59 | 58.3 | 63.8 | 56.5 | 55.9 | 55.8 | 58.5 |
| | 60 and more | 15.0 | 11.7 | 14.6 | 13.4 | 14.9 | 15.4 |
| Gliwice | 0–19 | 27.9 | 27.7 | 30.0 | 30.5 | 28.6 | 26.1 |
| | 20–59 | 59.7 | 60.9 | 44.3 | 57.4 | 57.7 | 59.0 |
| | 60 and more | 12.4 | 11.5 | 25.8 | 12.1 | 13.7 | 14.9 |
| Jastrzębie Zdrój | 0–19 | 38.1 | 40.2 | 39.0 | 35.4 | 31.0 | 29.0 |
| | 20–59 | 54.9 | 55.9 | 56.6 | 59.3 | 61.6 | 61.5 |
| | 60 and more | 7.1 | 3.9 | 4.4 | 5.3 | 7.4 | 9.4 |
| Jaworzno | 0–19 | 33.2 | 31.6 | 31.6 | 31.8 | 30.1 | 28.4 |
| | 20–59 | 57.0 | 59.0 | 58.1 | 56.3 | 55.7 | 56.1 |
| | 60 and more | 9.8 | 9.4 | 10.2 | 11.9 | 14.2 | 15.6 |
| Mysłowice | 0–19 | 29.9 | 29.4 | 30.9 | 32.0 | 31.3 | 29.4 |
| | 20–59 | 56.1 | 58.1 | 51.0 | 56.0 | 55.7 | 56.7 |
| | 60 and more | 13.9 | 12.5 | 18.1 | 12.0 | 13.0 | 13.9 |
| Piekary Śląskie | 0–19 | — | — | — | 30.2 | 28.7 | 26.9 |
| | 20–59 | — | — | — | 56.6 | 56.6 | 57.2 |
| | 60 and more | — | — | — | 13.2 | 14.7 | 15.9 |

Table 4. Contd.

| | | | | | | | |
|------------------|-------------|------|------|------|------|------|------|
| Racibórz | 0-19 | 34.3 | 34.0 | 33.8 | 34.3 | 31.0 | 29.4 |
| | 20-59 | 54.3 | 56.4 | 56.9 | 55.7 | 57.1 | 57.1 |
| | 60 and more | 11.4 | 9.7 | 9.4 | 10.0 | 11.9 | 13.5 |
| Ruda Śląska | 0-19 | 29.1 | 29.2 | 30.1 | 31.1 | 29.4 | 27.7 |
| | 20-59 | 57.0 | 58.6 | 57.9 | 57.1 | 57.3 | 57.8 |
| | 60 and more | 14.0 | 12.3 | 12.0 | 11.9 | 13.3 | 14.5 |
| Siemianowice Śl. | 0-19 | 27.3 | 27.1 | 28.1 | 29.4 | 27.6 | 25.7 |
| | 20-59 | 58.5 | 60.3 | 59.2 | 57.6 | 57.8 | 58.7 |
| | 60 and more | 14.2 | 12.6 | 12.7 | 13.0 | 14.5 | 15.6 |
| Sosnowiec | 0-19 | 25.7 | 27.2 | 29.6 | 29.9 | 27.3 | 24.4 |
| | 20-59 | 58.9 | 61.0 | 57.9 | 56.5 | 57.7 | 59.7 |
| | 60 and more | 15.4 | 11.8 | 12.5 | 13.6 | 15.0 | 15.9 |
| Świętochłowice | 0-19 | 27.3 | 26.9 | 29.4 | 29.4 | 28.3 | 26.4 |
| | 20-59 | 56.9 | 58.9 | 56.2 | 57.5 | 57.8 | 58.7 |
| | 60 and more | 15.8 | 14.2 | 14.4 | 13.1 | 14.0 | 14.9 |
| Tarnowskie Góry | 0-19 | — | — | — | — | 29.8 | 27.4 |
| | 20-59 | — | — | — | — | 55.9 | 57.0 |
| | 60 and more | — | — | — | — | 14.3 | 15.6 |
| Tychy | 0-19 | 33.6 | 32.7 | 34.9 | 35.1 | 32.9 | 29.8 |
| | 20-59 | 57.1 | 60.3 | 57.2 | 55.4 | 55.4 | 57.4 |
| | 60 and more | 9.3 | 7.0 | 7.9 | 9.5 | 11.7 | 12.9 |
| Wodzisław Śląski | 0-19 | 37.8 | 33.3 | 32.5 | 32.4 | 31.1 | 29.3 |
| | 20-59 | 55.4 | 55.5 | 55.8 | 55.5 | 55.6 | 55.8 |
| | 60 and more | 6.9 | 11.2 | 11.7 | 12.1 | 13.3 | 14.9 |
| Zabrze | 0-19 | 29.4 | 28.3 | 30.0 | 30.2 | 29.0 | 27.2 |
| | 20-59 | 57.6 | 59.9 | 58.9 | 58.2 | 57.4 | 57.7 |
| | 60 and more | 13.0 | 11.8 | 11.1 | 11.6 | 13.6 | 15.1 |
| Zawiercie | 0-19 | 27.7 | 28.1 | 29.6 | 29.8 | 27.3 | 25.0 |
| | 20-59 | 56.2 | 57.3 | 54.9 | 54.3 | 56.3 | 58.1 |
| | 60 and more | 16.1 | 14.7 | 15.5 | 16.0 | 16.4 | 16.9 |
| Żory | 0-19 | — | — | — | 41.6 | 36.6 | 31.5 |
| | 20-59 | — | — | — | 53.4 | 57.6 | 61.7 |
| | 60 and more | — | — | — | 5.0 | 5.9 | 6.7 |

Source: The authors' elaboration based on statistical data from Statistical Office in Katowice

In the group of centres, where demographic development was mainly influenced by natural growth, a further population decrease is expected (Gliwice, Jastrzebie Zdrój, Jaworzno, Rybnik, Zabrze) or, on the contrary, a slight increase (Będzin, Bytom, Wodzisław Śląski). Only in

Częstochowa, a slightly higher increase in the population is expected of the order of several thousand people (the probability of this prognosis is only 55%).

In the centres whose development to date has been mainly influenced by natural growth, (Bielsko-Biała, Dąbrowa Górnicza) a slight increase in the population is expected – several thousand in Bielsko-Biała and about 1.0–1.5 thousand in Dąbrowa Górnicza.

The last group of towns includes towns, which develop due to both natural growth and migration growth. Only in Ruda Śląska a population decrease is expected. In Chorzów, Tychy and Żory, there will be an increase of the order of 0.6 thousand people. All these slight changes within all the groups of towns show stabilisation of the demographic potential.

Conclusions

The above-presented picture of development of population features in the largest towns of Silesian Province shows that the dynamics of transformations has undergone considerable suppression. This concerns the total population number, components of natural movement and migration movement. Simultaneously, the society shows features of demographic aging, where women represent the largest percentage (mainly because of the increase in their rate in medium and older age groups). Therefore the largest towns of the region, located mainly in its central part, lost the position of leaders in favour of smaller towns (especially those with a population below 25 thousand) or urbanised rural districts of the direct hinterland of Katowice and Rybnik conurbations.

Because of the fact that in its spatial system the centre of the region underwent a faster decrease in the dynamics of population phenomena than towns located in the hinterland, this situation may be called a stage of sub-urbanisation. Chorzów is a town which is located in the centre of the system and which showed the largest population loss.

Taking into account the demographic prognosis for the region, there is no doubt that the intensive stage of region's development finished in the 70s, and at present there is a lack of sufficient pro-development factors of population changes in the province. This results from the fact that from the end of the 80s and beginning of the 90s, nationwide factors are the most important (continuation of the low stage of demographic cycle of the 80s and social-demographic consequences of political and economic transformations). Only in some towns with a population over 50 thousand a population increase is expected, which is a derivative of the ear-

lier trends (e.g. Bielsko-Biała, Częstochowa, Jastrzębie Zdrój, Tychy), or the limited character of economic investments (Gliwice).

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