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Demographic processes and phenomena change relatively slowly, essentially generation by generation. Also, it is not insignificant how the circumstances of the previous generation affect the ones that follow, i.e. the so-called echo effect. However, the intensity of demographic phenomena changes more dynamically, so that within a few years' time it is possible to observe crucial tendencies of future transformations. Therefore, the five years' gap since the previous edition of the Demographic Sheet, as published in The Łódź Atlas, makes it reasonable to re-review the demographic phenomena in the city.

The maps published in the previous edition of The Łódź Atlas were developed for the years 2000 and 2001 and based on the statistical data a part of which were estimates calculated utilising the results of the National Census 1988. The next National Census was carried out in 2002, which made it possible to verify the demographic statistics and, by continually updating the data, to obtain a picture of the processes under analysis for the year 2005.

In the recent years Łódź has experienced meaningful economic changes that directly affect the demographic phenomena in the city. The unemployment figure, once highest among large Polish cities, has decreased by almost 30 000, while the unemployment rate between 2002–2006 dropped by nearly one-third. Moreover, the migration balance has changed, too. In the 1990s it was negligibly positive (from +300 to +500 yearly), but since 1999 it has been reaching negative values (from –700 in 2001 to nearly –1400 in 2005). This change substantially results from the increasing emigration of the more affluent Łodzians to the urban-rural fringe, which process has been progressing since the late 1990s (Michalski W., Bielińska M. 2005).

Taking into consideration the foregoing factors, a new presentation of the city's demographic picture has been prepared, reduced this time to the aspects that have undergone certain changes. Two of the aspects that were analysed in the previous edition of The Łódź Atlas – demographic potential and type of demographic development – has not changed over the time and, therefore, is not included in the presentation of the city's demography in 2005.

In the years 2001–2005, the population drop dynamics did not change as compared to the 1990s, and on average reached 5 000 people per year. Since 1989, when the highest population number was recorded, this figure has plummeted to 768 000 (2005), i.e. by 9.9%. On 2001, the drop totalled 2.9%. The greatest decrease was observed in Śródmieście (by 7.1%). Only in Widzew did the population level remain unchanged.

In the historical part of the urbanised zone, encompassing the inner city and old housing estates, in the years 2001–2005 the population decrease totalled 13 500, i.e. 3% on the initial year. In comparison to 1989, the population drop reached 91 300, i.e. 17.5%. Simultaneously, on the city's dispersedly urbanised outskirts, with the exception of new housing estates and south-eastern part of the city, the population growth totalled almost 20 000.

In the 1990s, actual population decrease was observed in 32 out of the 61 microdistricts, in 2/3 of which it was higher than 15%. Above all, the population loss zone included the city centre and the districts of old housing districts (Koziny, Kurak, Doly, Teofilów). A moderate population increase was recorded in 24 microdistricts, mostly on the outskirts and in the housing estates erected in the 1980s (Radogoszcz, Lublinek Pienista). Only in 5 microdistricts did the population growth exceed 30% and was highest in the microdistricts with strongly developing housing function (Olechów, Romanów, and Ustronna).

In the recent years (2002–2005), there has deepened the population outflow from the central microdistricts (Zielona, Nowe Miasto, Stare Miasto Bałuty, Doly) and from the high-rise microdistricts (Teofilów, Dąbrowa Zachodnia, Dąbrowa, Zarzew). The microdistricts that previously gained population but posted population loss in the period under study include: Feliksów, Chojny Zatorze, and Dąbrowa Zachodnia. Population growths that were higher on the previously studied period (1988–2001) were recorded in the microdistricts located in the urbanising suburbia: Nowosolna, Andrzejów Nery, Mileszki, Bronisín, Złotno. Worthy of notice is the population growth in the microdistricts of Kochanówka, Zimna Woda, and Stoki which until 2001 had been characterised by systematic population loss. It may be claimed that the previously observed process of suburban urbanisation at the cost of the city's central quarters has intensified.

With the average population density of 26 persons per 1 ha, Łódź's population still appears to be highly concentrated. More than 65% of the population occupies only 15% of the city's overall area. Three microdistricts (Nowe Miasto, Zielona, and Dąbrowa) which hardly take up 2.6% of the city's overall area are occupied by 15% of the city's population, while the districts located in the suburbs (excluding Retkinia and Radogoszcz), which take up nearly a half of the city's surface, provide the living space for just 7% of the population.

One effect of the systematic population drop in Łódź is that in 2005 (as compared to 2001) a lower population density was observed, mainly in the microdistricts with old housing estates (Dąbrowa Zachodnia, Żubardż) and those in the inner city (Centrum, Akademicka).

The second settlement line that in the recent years has been developing along the east-west axis between Smulsko and Olechów, following the new tertiary sector investments in the city centre, has been further reinforced. In 2005, it embraced 25% of Łódź's population, i.e. by 3 percentage points more than in 2001.

The process of natural depopulation, resulting from the regular birth rate drop observed in Łódź since 1986, stopped after 2001. In the period 2001–2005, the number of births increased from 5.6 thousand to 5.9 thousand. The change was not related to increased childbearing rates in women, but rather with the more numerous generation of echo baby-boomers of the 1970s and 80s entering the childbearing age.

In 2005, the birth rate levels within the area of Łódź were highly diversified. The highest birth rates were recorded in the microdistricts located in the south-eastern and the north-eastern suburbs. The inner city boasted medium birth rate levels, save the Akademicka microdistrict, where the ratio was lower than 5%. In five small microdistricts no births were recorded. As compared to 2001, the most frequently birth rate growth was within 1%–2%, especially in the inner city and the western and south-eastern suburbs. A negligible drop of this ratio was recorded in the north-eastern suburbs of Łódź.

In 9 microdistricts, the death rates were lower than 6%, with the largest number of microdistricts posting relatively high death rates concentrated in the inner city. The spatial configuration of death levels within the microdistricts in the years under comparison hardly changed.

The product of the diversified birth rate and death rate levels is the natural growth spatial structure. High natural population losses were recorded in the microdistricts located in the central and western parts of the city, primarily old housing estates. Positive natural population growth was only observed in 13 microdistricts, mostly situated in the eastern and south-eastern parts of Łódź and in its north-western suburbs. Most of these are the microdistricts incorporated by the city in 1988 and characterised by mixed developments with a strongly developing residential function, and the intensively developing apartment microdistrict of Olechów. The latter is characterised by young age structure and particularly high proportion of women of childbearing age.

Literature
Michałski W., Bielińska M., 2005, *Suburbanizacja – wzrost czy rozpychanie się aglomeracji miejskich*, [w:] Lorens P., (red), *Problemy suburbanizacji*, Biblioteka urbanisty 7, Urbanista, Warszawa, s. 144–147.

Sources
Own computations based on materials from the Office of Statistics in Łódź as on 31.12.2005.
Births and deaths per each microdistrict based on data from the Common Electronic Population Registration System (PESEL).

¹ The spatial diversity of the demographic ratios under discussion has been presented for 61 microdistricts, assumed by the Office of Statistics in Łódź as one of the census data aggregation levels. The microdistrict boundaries were delimited on the basis of historical, morphological and functional criteria, and their use in the analysis will enable comparative data studies in the subsequent editions of The Łódź Atlas.

² In 2005, in the microdistrict of Park Ludowy neither births nor deaths were recorded. The natural population increase in this microdistrict equals 0.