

## THE ŁÓDŹ ATLAS

### Sheet XVa: Demographic structure as in 2005

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In the last 15 years Łódź has observed undesirable trends in its population’s age structure. Recorded was a systematic decrease in the number and percentage in the pre-working age group (from 22.3% to 14.6%) and an increase in the working age group (from 60.1% to 66.0%), as well in the post-working age group (from 17.3 to 19.4%). Such changes are indicative of a significant deformation of the age structure and a progressing population ageing process. The foregoing changes were also observed in the recent 5 years, but their pace was slightly lower than in the previous years.

The zone of the lowest (below 15.6%) proportion of population in the pre-working age bracket extended to include almost all microdistricts (osiedle) around the inner city and Radogoszcz. Still, the most favourable proportion of population in this age bracket was recorded in the eastern city suburbs. The few microdistricts that in 2001 posted an increase in the proportion of population in the pre-working age bracket, are located in the urbanising western suburbs (Zimna Woda, Romanów, Srebrna, Lublinek, and Laskowice).

The proportion of population in the working age bracket in 2005 was not as spatially diversified as in 2001. In an overwhelming majority of the microdistricts it was either within 62% – 66% (18 microdistricts), or in excess of that upper limit (28 microdistricts). Its increase, in result of the younger generations entering the working age, was in particular observed in the inner city and the southern suburbs.

Within the categories of the proportion of population in the post-working age bracket, as applied in this study, the changes in the years under comparison were insignificant, since at the time this age bracket was entered by generations born during World War II.

.As compared to 2001, a decline in the proportion of population in the post–working age bracket was recorded in old housing estates, such as Doly, Dąbrowa, Akademicka (presumably caused by the generation change in the existing housing resources).

The dependency ratio, being a measure the number of dependants (not of the working age) per 100 population in the working age bracket (active), is highly diversified in Łódź. Its values vary from 26 in Olechów, to 83 in Dąbrowa, with the mean value of 51 for the entire city. The inner city shows an average dependency ratio, in new microdistricts the ratio is low, while old microdistricts and the areas incorporated into the city after 1988 show relatively high values.

On 2001, the mean dependency ratio has decreased in comparison from 57 to 51. The change was caused by a decrease in the number of children and youth in favour of the population in the post-working age bracket.

Łódź is still one of the most feminised Polish cities, with 119 women per 100 men. In general, the population’s feminisation ratio radially decreases from the inner zone to the city boundaries, where there exist a few microdistricts characterised by male prevalence (Łagiewniki, Nowe Moskule, Wiączyń Górny, Wiskitno A-Las, Lublinek, Huta Jagodnica, and Kochanówka). The highest feminisation ratios are recorded in the districts surrounding the inner city and in old microdistricts (Zubardź, Koziny, Doly, Dąbrowa). The most significant increase in sex ratio since 2001 was characteristic for units with high share of post-working age group (Zubardź, Nowe Rokicie). The feminisation ratio has grown highest in the microdistricts that already in 2001 were characterised by a high proportion of population in the post-working age bracket (Zubardź, Nowe Rokicie).

A more balanced feminisation level characterises the population in the 15–49 age bracket. While the mean value for the city is 106 women per 100 men (107 in 2001), locally it varies from 72 (Towarowa) to 155 (Akademicka – university campus). The lower than average feminisation ratio in this age group is observed in the microdistricts located in the inner city. The microdistricts around it predominantly show the ratios in the order of 105 to 109, which is similar to that recorded in the largest microdistricts (Radogoszcz, Retkinia, Widzew Wschód). On the other hand, 19 microdistricts in the northern and eastern parts of the city showed male prevalence in this age bracket.

A synthetic picture of the past, current, and future demographic structure of Łódź is reflected in the population pyramids for 2005 and 2027. These pyramids, in contrast to those for 2001–2002 (K a n i e w i c z S., N o w a k o w s k a B., 1999), were developed based on the data from the National Census 2002. On their construction, taken into account was the effect of the negative migration balance respectively for each age bracket. In both periods, in line with the previous years, their shape indicates a regressive population development type (H o l z e r J. Z., 1989). The changes in the population’s age structure, as indicated by the pyramids, reflect the so-called ‘demographic oscillation’, i.e. an alternation of birth-rate lows and highs. The pyramid illustrating the state of affairs in 2005, unmistakably indicates the first post-war baby boom (50–59 age group), the birth rate lows of the 1960s (34–45 age group), and the ‘echo’ baby boom (baby boomers’ children) of the 1970s and 80s (aged 20–24, and particularly 20–29). The second phase of the demographic echo high (baby boomers’ grandchildren) so far is only reflected by a slowdown in the decrease of the population aged 0–9. The pyramid also clearly indicates a large gap caused by the particularly low birth rate during World War II.

In 2027, the most prevalent demographic group will be that in the 45–49 age bracket, i.e. the population born in the first demographic echo high. The younger group in the working age bracket will comprise the children of the demographic ‘low’ of the 1960s, and the pyramid base, in turn, will include their children. The afore-described demographic oscillations will be enhanced by the change in the childbearing pattern caused by women delaying the birth of their first child until after they graduate and achieve a stable professional and economic standing.

Should the natural population drop, as recorded at the turn of the centuries, and primarily caused by the childbearing rate downturn and increased death rate in the aging population, coupled with the nearly zero migration balance, continue, within 20 years Łódź may lose over 140 000 inhabitants (M i c h a l s k i W., S o b o c i Ń s k a E. 2004). This means a loss of approx. 18% on 2005.

Also, the unfavourable tendencies of change in the population’ economic age structure may be expected to deepen. The drop in the child and teenage populations will be drastic (by nearly 1/3) and the proportion of this age group in the total population of the city will go down to 14%. Relatively lower drops will be observed in the working age group, whose population will go down by 18%, bringing its proportion down to 56%. On the other hand, significant increases can be expected in the post-working age group, whose population will go up by nearly 30%. Although it is impossible to determine which areas within the city space will be affected by this process more than the others, the population decrease in Łódź will have a significant impact on the city’s public utilities (M i c h a l s k i , N o w a k o w s k a 1999).

#### Literature

H o l z e r J. Z., 1989, Demografia, PWE, Warszawa, s. 136.

K a n i e w i c z S., N o w a k o w s k a B., 1999, *Prognoza biologiczna ludności – założenia i wyniki*, [w:] M i c h a l s k i W. (red.), *Spoleczno-ekonomiczne problemy aglomeracji łódzkiej*, RCSS BRR i PTG Oddział w Łodzi, s. 113–124.

M i c h a l s k i W., N o w a k o w s k a B., 1999, *Ludność w przestrzeni miasta*, [w:] M i c h a l s k i W. (red.), *Spoleczno-ekonomiczne problemy aglomeracji łódzkiej*, RCSS BRR i PTG Oddział w Łodzi, s. 20–27.

M i c h a l s k i W., S o b o c i Ń s k a E., 2004, *Prognoza ludności Łodzi do roku 2027*, [w:] *Relacje i opinie. IV Festiwal Nauki, Techniki i Sztuki w Łodzi*, ŁTN, Łódź, s. 11–15.

#### Source

Own computations based on the materials maintained by the Office of Statistics in Łódź, state of affairs as on 01.01.2006

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. The population structure analysis in terms of the economic age groups does not include atypical microdistricts being the locations of social aid homes, (Park Ludowy with 76.8% proportion of population in the post-working age bracket, and Zarzew Przemysłowy – 82.2%).

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