

STEFANIA ŚRODA-MURAWSKA

NICOLAUS COPERNICUS UNIVERSITY

## LARGE GERMAN CITIES IN CONTEXT OF THE AGEING PROCESS AT THE TURN OF THE 20<sup>TH</sup> CENTURY

**ABSTRACT.** The ageing process is one of many issues the modern world is facing nowadays. This process of societies becoming older and older can be observed everywhere around the globe; however, it is most prominent in the highly developed countries. This article attempts at describing the current state and probable tendencies in the ageing process among citizens of the Federal Republic of Germany. The analysis presented is based on the change of the age structure in German population between 1990 and 2002.

**KEY WORDS:** ageing process, large German cities, ageing, index, East Germany, West Germany.

### INTRODUCTION

Among many other problems which the modern world needs to address, the ageing process of populations in highly developed countries is of prime importance. There are numerous direct causes of the ageing process such as demographic factors – lower birth-rate, longer life-span, ageing of baby-boom generations and their influence on the age structure, and the intensity and selectivity of migrations (Dinkel, Lebok 1997; Grzelak- Kostulska, 2001; Holzer, 2003; Kurek, 2002; Münz, 2000; Szymańska, Środa, 2006). On the other hand, one may enumerate a variety of socio-economic circumstances as well (Grzelak-Kostulska, 2001; Kurek, 2002, 2003). The number of possible variables makes the results of complex analysis of the ageing phenomenon difficult to reach especially when global scale is taken into account and not only the level of countries, regions, or districts (Długosz, 2002).

This article aims at depicting the current state and tendencies in the changes of age structures among the citizens of large German cities. The analysis presented here is based on the ageing index (understood as the ratio of those 65 years old and above to the total number of population) calculated for 1990 and 2002. Out of all large cities in the Federal Republic of Germany, 76 towns with the population exceeding 100,000 inhabitants each were included in the research. The population in those towns reached 24.6 million, which amounted to 30% of German citizens. It must be indicated here that 6 large towns were not included in the research as the data concerning those cities seemed unreliable or were incomplete. The research and article are based on the analysis of rough statistical data gathered from Bundesamt für Bauwesen und Raumordnung, Niedersächsisches Landesamt für Statistik webpages (in case of Hildesheim and Göttingen), and Statistisches Landesamt Baden-Württemberg Internet resources (for Reutlingen).

### THE AGEING INDEX IN LARGE GERMAN CITIES

The progress of the ageing process is easily seen in German population since the 1950s and was widely researched by German demographers such as Münz (2000) and Grohmann (2003). The share of people aged 65 and above in the general population in 1950-2003 both in West and East Germany rose from 9.7% (6.7 mln) in 1950 to more than 18% (14.9 mln) in 2003 (Fig. 1). In other words, every tenth German citizen in the 1950s was 65 or older while in 2003 it was already one in five people who reached that age.

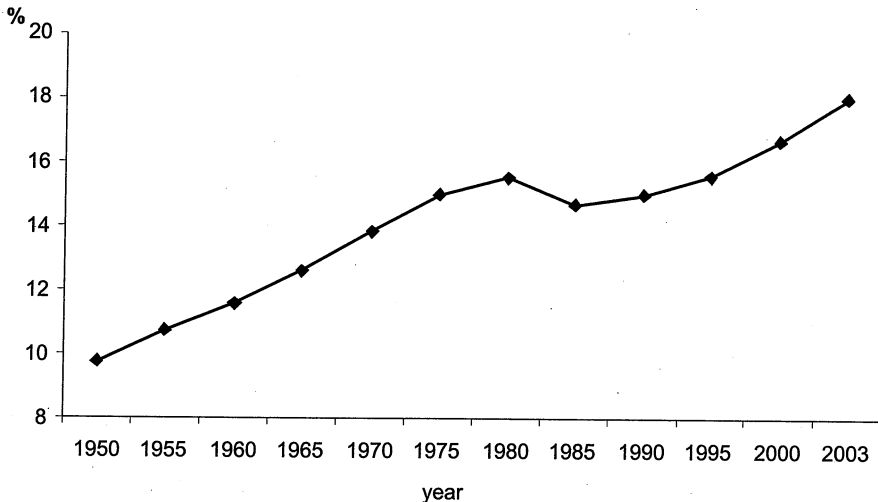


Fig. 1. The share of people aged 65 and older in German population in the period 1950-2003  
*Source:* The author's research based on the data collected from Statistisches Bundesamt.

Main reasons of such a situation may be found in a lower number of births and in the prolonged life span (Münz, 2000). The period of 1990-2002 is also characterised by a growing ratio of the older among large city dwellers throughout the whole Germany.

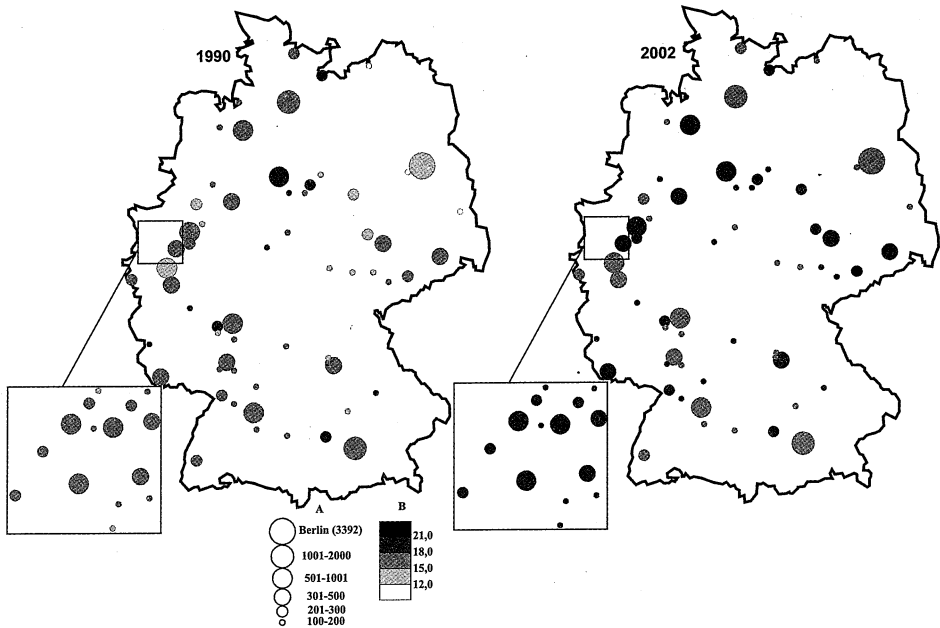


Fig. 2. The ageing index in large German cities in 1990 and in 2002

A – size of cities in thousands of inhabitants; B – the ratio of inhabitants aged 65 and above in the general number of city population (calculated in %)

*Source:* The author's research based on the data collected from Bundesamt für Bauwesen und Raumordnung, Niedersächsisches Landesamt für Statistik, and Statistisches Landesamt Baden-Württemberg.

After a more detailed analysis of the data it can be stated that in 1990 out of the total of 76 cities investigated in 25% cities (19) the ratio of those aged 65 and older of total of population did not exceed 15% (Fig. 2). In more than 63% of cities (48) the ratio varied between 15% and 18%. However, only in 12% of cities (9) nearly one in five inhabitants reached the age of 65 or above. Demographically speaking, Kassel was the oldest German town in 1990 with 19.8% of dwellers aged 65 or more. In contrast, Rostock, an East Germany and former Hanseatic town, was the youngest city found in Germany in 1990 with 9.1% of the oldest inhabitants. At the end of the investigated period, in 2002, the share of those aged 65 and above surpassed 15% of city dwellers in all but one of researched German cities. The lowest percentage of older generations (15%) was found in the academic town of Heidelberg. In 39% of towns (30) the

ratio levelled between 15% and 18%, and in the following 58% of towns (44 in comparison to 9 in 1990) nearly one in five inhabitants reached the age of 65 or above. In the remaining two cities – Chemnitz and Mulheim a.d. Ruhr – the ratio amounted to 21.4%. The average level of the ageing index in the investigated period 1990-2002 rose from 15.9% to 18.2%, which results in a growth of 0.4 mln people of 65 years old and more. When comparing German regions in 2002, it is possible to distinguish two groups of cities with the highest ratio of the older inhabitants (Fig. 2).

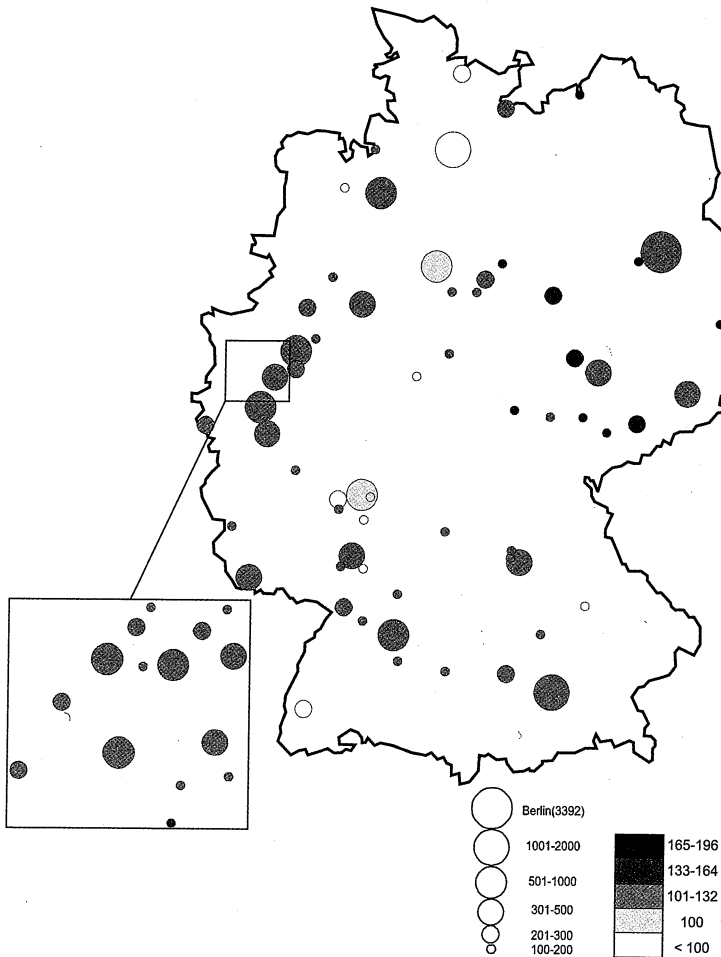


Fig. 3. The progress of the ageing index in large German cities in 2002 (1990 set as a base level = 100%)

Source: Author's research based on the data collected from Bundesamt für Bauwesen und Raumordnung, Niedersächsisches Landesamt für Statistik, and Statistisches Landesamt Baden-Württemberg.

The first group of those cities with a considerable number of the old may be found in the new *Länd* of Saxony – Dresden 18.9%, Leipzig 19.2%, Zwickau 20.4%, and Chemnitz 21.4%. The other group is constituted by the cities of Nordrhein-Westfalen *Länd* in the industrial vicinity of the Rhine – Bottrop 18.6%, Oberhausen 18.9%, Duisburg 19.8%, Bochum 19.4%, and Essen 20.7%. The higher ratio of the ageing index in those two regions may be explained by their specific nature. All of those towns belong to old and post-industrial districts facing numerous problems connected with the ageing of population and the outflow of inhabitants directed to other *Länder* (data from [www.aktion2050.de](http://www.aktion2050.de)).

However, when comparing those cities according to the pace of the ageing process, there are scarce similarities in the investigated period 1990-2002. The towns of the former East Germany were characterised by a much more rapid progress of the ageing index (Fig. 3). In 2002 the number of those aged 65 and above in 12 out of 13 large cities in the former German Democratic Republic increased by 20% from initial levels in 1990. In case of Rostock the growth reached a staggering 95%. On the other hand, in 8 of 60 large cities of the former Federal Republic of Germany noticed a >20% progress in the ageing index (Fig. 3). This visible difference may be indirectly explained by the division of Germany into two states 1945-1989. After the reunification in 1990 former East Germany experienced drastic demographic transformations due to a significant decrease in the birth rate and a considerable outflow of citizens to former West Germany *Länder* (Bucher, Schlomer, Lackmann, 2004; Dinkel, Lebok, 1997). The ageing process in the former East Germany, both in towns and in the countryside, increased rapidly mainly as the consequence of the domestic westward emigration of younger people. The lower pace of ageing in former West Germany was a consequence of the same domestic westward immigration.

## CONCLUSION

Before drawing any conclusions it is important to recall the fact that the burden index (understood as the ratio of people aged 65 and more to the general population) in the cities of the former East Germany, when compared with the former West Germany cities, was significantly lower in 1990 (Fig. 2, Fig. 3). It was one of the effects of family policy in the former East Germany as well as of the closing of borders till 1989 for the fear of West Germany directed emigration (Dinkel, Lebok, 1997). However, starting from 1990 former East Germany suffered from a decrease in birth rates nearly by half, which was a direct reaction to socio-economical and political transformations connected to the Reunification of both German states (Münz, 2000). The ageing process in the former East Germany was enhanced even more by the domestic westward emigration of the younger generations. As a consequence, in 2002 the initial

age structure differences between large cities of former West and East Germany were minimised (Fig. 2).

Taking into account demographic predictions prepared by such institutions as Statistisches Bundesamt, Bundesministerium des Innern, Deutscher Bundestag, or Eurostat, a further growth in the number of older inhabitants of German cities is expected to the level of 30% in 2020.

## REFERENCES

- Bucher, H., Schloemer, C. and Lackmann, G.** 2004: Die Bevölkerungsentwicklung in den Kreisen der Bundesrepublik Deutschland zwischen 1990 und 2020. *Informationen zur Raumentwicklung*, Heft 3/4, 2004, pp. 107-126.
- Dinkel, R. H. and Lebok, U.** 1997: Demographische Alterung in den alten und neuen Ländern Deutschlands, *Geographische Rundschau*, Heft 3, Jahrgang 49, pp. 169-172.
- Długosz, Z.** 2002: Stan i tendencje procesu starzenia się ludności miast polskich w świetle wybranych mierników. In Słodczyk, J. editor, *Demograficzne i społeczne aspekty rozwoju miast*. Opole: Wydawnictwo Uniwersytetu Opolskiego, pp. 93-101.
- Grohmann, H.** 2003: Die Alterung unserer Gesellschaft- Ursachen, Wirkungen, Handlungsoptionen, *Zeitschrift für Bevölkerungswissenschaft*, nr 3-4/2003, pp. 443-462.
- Grzelak-Kostulska, E.** 2001: *Przemiany w strukturze i procesach demograficznych na obszarze województwa kujawsko-pomorskiego*. Toruń: Wydawnictwo Uniwersytetu Mikołaja Kopernika.
- Holzer, Z.** 2003: *Demografia*. Warszawa: PWE.
- Kurek, S.** 2002: Proces starzenia się ludności w powiatach miejskich na tle pozostałych jednostek osadniczych. In Słodczyk, J. editor, *Demograficzne i społeczne aspekty rozwoju miast*. Opole: Wydawnictwo Uniwersytetu Opolskiego, pp. 103-116.
- Kurek, S.** 2003: The spatial distribution of population ageing in Poland in the years 1988-2001. In Szymańska, D. editor, *Bulletin of Geography (socio-economic series)*, no 2/2003, pp. 65-75.
- Münz, R.** 2000: Die Bevölkerungsentwicklung in Deutschland, 1950-1999. Lehrmaterial Sommersemester. Berlin: Humboldt Universität, Bevölkerungswissenschaft.
- Szymańska, D. and Środa, S.** 2006: Le processus de vieillissement de la population en Allemagne dans les années 1995-2003. In Dumont, G.F. editor, *Les territoires face au vieillissement en France et en Europe*. Paris: Ellipses Edition, pp. 297-305.
- [www.aktion2050.de](http://www.aktion2050.de)

## CORRESPONDENCE TO:

Stefania Środa-Murawska  
Institute of Geography, Nicolaus Copernicus University  
Gagarina 9, 87-100 Toruń, Poland  
[e-mail: [steffi@geo.uni.torun.pl](mailto:steffi@geo.uni.torun.pl)]