PROBLEMS OF THE LIFE QUALITY OF CITY-DWELLERS
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Daniela SZYMAŃSKA and Stefania ŚRODA-MURAWSKA
Nicolaus Copernicus University, Toruń

THE SERVICIZATION PROCESS BASED ON THE STRUCTURE OF EMPLOYMENT IN LARGE GERMAN CITIES IN 1996–2002

1. Introduction

At the very beginning of this paper the authors wish to remark that the following reasoning and analysis of servicization process in larger German cities is based only on scientific inquiry into the growth of the number of those employed in the service sector. The authors are aware of multifold aspects causing the growth of the service sector, as can be seen in the progressive and diverse changes in the European countries.

Out of a few facets of servicization, the first to notice is connected with an increasing role of services in creating GDP (Gross Domestic Product), also known as servicization of production. The second aspect is combined with a constant increase both in the consumption of services and in the growth of the consumption of services in the household and in society (servicization of consumption). Finally, the third facet of the process is best seen in a growing number of employment in services and in a constant increase in the number of the employed in the service sector (servicization of work and of employment).

When analyzing the servicization of production in connection to GDP, it is worth mentioning that in the most developed countries, nearly 70–75% of GDP comes from the service sector, 20–25% from industry, and around 5% from agriculture. In the USA, services amount to 80% of the GDP (in 2001), in the UK it is 74% (in 2001), in France 71% (in 2002), in Japan and in Germany 68% (in 2001), and in Poland it is 61% (in 2001). The process of servicization is also present in East Europe, *e.g.*, in Russia in 1998 the sources of the GDP were divided in the following manner: production of goods – 39.9% (in 1990 it was already 60% of the GDP), production of services – 52.7%. Therefore, for the first time in the history of Russia services amounted to more than a half of its GDP [Szymańska, 2004a; 2004b].

Another aspect of servicisztion already mentioned in the article is found in the constant increase in the consumption of services and in the growth of the share of that consumption in the total household expenses, as well as in the national expenses (servicization of consumption). Such trends are typical of the societies in the developed countries. Although the topic itself is more than interesting to a scientist, it is not of prime importance within the scope of this article.

Every year the number of people employed in the service sector, especially in the developed countries, grows substantially. Nowadays, more than a half of those capable of working are employed in services. In Germany nearly 70% of the employed work in the service sector (2002), while in Poland, for comparison, it is only 46% (in 2001; although in 1987 the number was even more astonishingly low 35%).

After World War 2, there was a significant boost in the development of the service sector due to rapid changes in the economy of Western countries, which were caused by some major shifts in demography, society, and politics. As a direct effect, the service sector became a new major branch of the West Europe's market [Payne, 1977, 17]. However, it is necessary to remember that the process was not simultaneous in all countries. The rate of servicization depends on such factors as local characteristic of economies based on natural resources, the age structure of society, the level of wealth of society, and state health care, among many others, all of which may significantly diversify the amount of services required in countries at a similar stage of development. For example, in the Federal Republic of Germany only 70% of the employed work in services (in 2001) which is surprisingly low when compared with Belgium – 72%, Norway – 74.5%, and, finally, with the USA – 75%. The relatively low percentage of people employed in the service sector in Germany is a direct consequence of the natural characteristics of the country, in which the industry is of major importance.

Therefore, the question arises: What changes are of importance in the process of servicization as it can be seen in the structure of employment in large German cities in the period 1996–2002? Those cities accommodate 24 million citizens, who constitute 30% of the German nation and 40% of the employed in the country (Fig. 1).

The investigation concentrates on cities with more than 100 thousand inhabitants as it was these cities that accommodated 40% of the employed in the service sector out of all people working in services in 2002 in Germany. In some sections of the service sector there were even 50% of the employed in services, *e.g.*, in financial intermediation (J) and in real estate, renting, and business activities (K). (Classification and translations here and in the rest

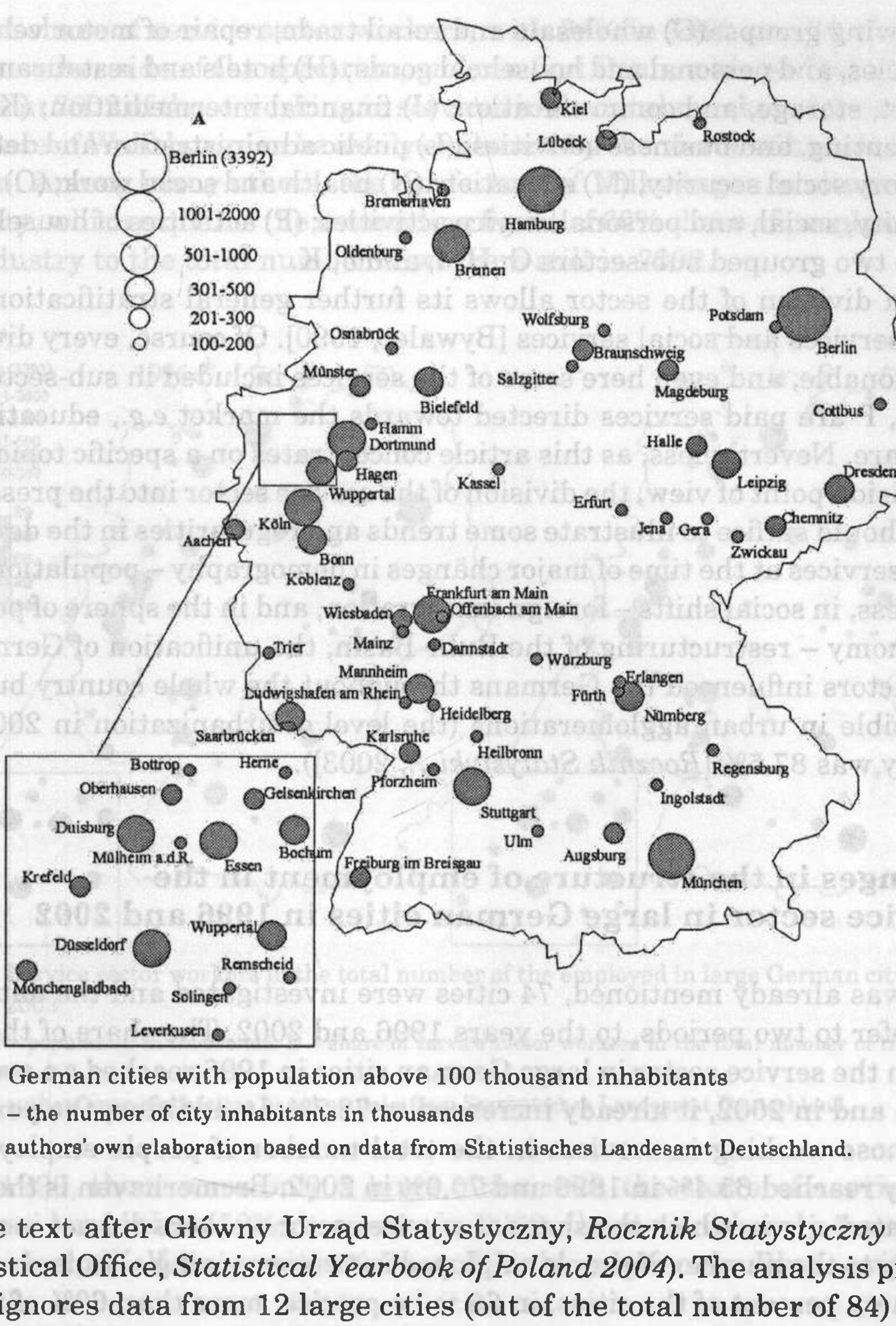

Fig. 1. German cities with population above 100 thousand inhabitants

Note: A – the number of city inhabitants in thousands

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland.

of the text after Główny Urząd Statystyczny, *Rocznik Statystyczny* (Central Statistical Office, *Statistical Yearbook of Poland 2004*). The analysis presented here ignores data from 12 large cities (out of the total number of 84) for 2002 as some major pieces of information seemed unreliable. Nevertheless, the exclusion of those cities from the investigation does not probably influence the analysis to a great extent, and the data from the cities may be neglected without distorting the final image of the process of urbanization in Germany. In order to present the changes within the process, the number of the employed in the service sector was set against the number of those working in the other sectors in 1996 and in 2002. The investigation also took into account structures of sub-sectors within services; the service sector was divided into the following groups: (G) wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods; (H) hotels and restaurants; (I) transport, storage, and communication; (J) financial intermediation; (K) real estate, renting, and business activities; (L) public administration and defense; compulsory social security; (M) education; (N) health and social work; (O) other community, social, and personal service activities; (P) activities of households; and also two grouped sub-sectors G, H, I, and J, K.

Such a division of the sector allows its further general stratification into market services and social services [Bywalec, 1990]. Of course, every division is questionable, and even here some of the services included in sub-sectors L, M, N, O, P are paid services directed towards the market *e.g.*, education or health care. Nevertheless, as this article concentrates on a specific topic from the precision point of view, the division of the service sector into the presented groups should suffice to illustrate some trends and regularities in the development of services at the time of major changes in demography – population ageing process, in social shifts – foreign immigration, and in the sphere of politics and economy – restructuring of the Ruhr Basin, the unification of Germany. These factors influenced the Germans throughout the whole country but are most visible in urban agglomerations (the level of urbanization in 2000 for Germany was 87.5% [*Rocznik Statystyki...*, 2003]).

2. Changes in the structure of employment in the service sector in large German cities in 1996 and 2002

As it was already mentioned, 74 cities were investigated and the data collected refer to two periods, to the years 1996 and 2002. The share of the employed in the service sector in large German cities in 1996 reached an average of 74.3% and in 2002, it already increased to 78.7%. In addition, the percentage of those working in services in the total number of people employed in Germany reached 65.4% in 1996 and 70.0% in 2002. Bremerhaven is the only investigated city in which the share of service sector workers did not increase relatively to the number of people employed in two remaining sectors. In more than ninety percent of the cities, in 66 to be precise, more than 60% of working people were employed in services both in 1996 and in 2002. Moreover, in 1996, in 60% of large German cities, 60–80% of the employed worked in the service sector, and in 22% the share amounted to 80–89%. However, in 2002, 60–80% characteristic described only 49% of the investigated cities, and the 80–89% share was typical of 43% of large German cities (Fig. 2). There is, nevertheless, still another point to be noticed as the range of cities that reached the maximum or minimum levels far from the statistical average also grew substantially. Hence, in the periods studied, Wolfsburg was the city with the lowest share of service sector workers, with 34% in 1996 and 39.6% in 2002. On the other side of the spectrum, one can find Bonn, with 86.7% in 1996 and 89.1% in 2002 of those working in services in the total number of the employed. The case of Wolfsburg can be easily explained by the virtue of high industrialization. Among many others, the car factory of Volkswagen is situated in the vicinity, which explains the astounding figure of 60% share of people employed in industry to the total number of workers still in 2002.

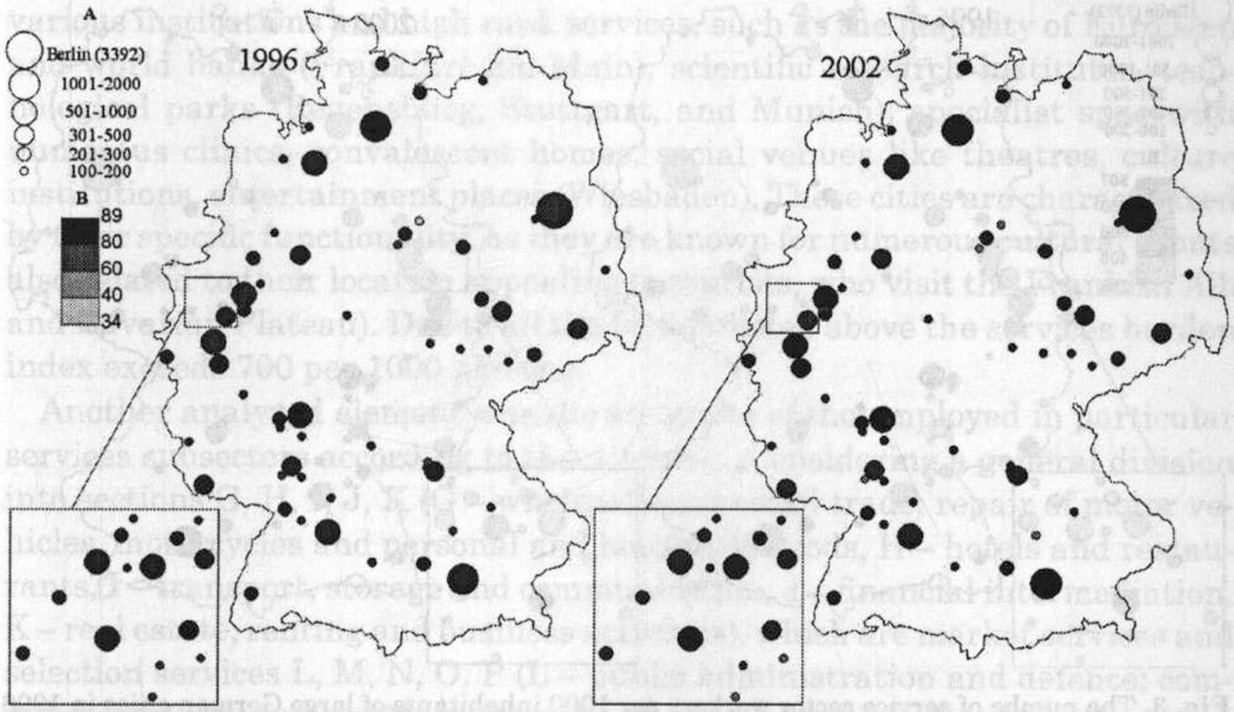

Fig. 2. Service sector workers in the total number of the employed in large German cities in 1996 and in 2002

Note: A – population in thousands; B – share of service sector workers in the total number of the employed given in %

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland.

In 1996, there were only 5 large cities with the share of service sector workers lower than 50%; however, in 2002, there were barely 2 such cities left, namely Wolfsburg, with 39.7% and Ludwigshafen am Rhein, with 49.8% (Fig. 2).

The investigation into the relation between the number of large German cities' inhabitants and the number of service sector workers proves the connections to be rather strong around the level 0.9614 in 2002 and 0.9655 in 1996.

The evidence for the development of the service sector is also found in the services burden index [Jakubowicz, 1993; Nowosielska, 1994], which presents the number of people employed in services per 1000 persons. In the period studied, 1996–2002, the services burden index on average increased by 10%, from 427 to 472 service sector workers per 1000 persons. Leipzig is the only exception to this general rule as the index fell slightly by 0.8% there. In general, throughout Germany there were 297 people employed in services per each 1000 persons in 1996, and the number increased to 327 in 2002. The ratio of service sector workers is spatially differentiated in Germany, which is best visible in the former East Germany, where the service sector employs a lot fewer workers (Fig. 3).

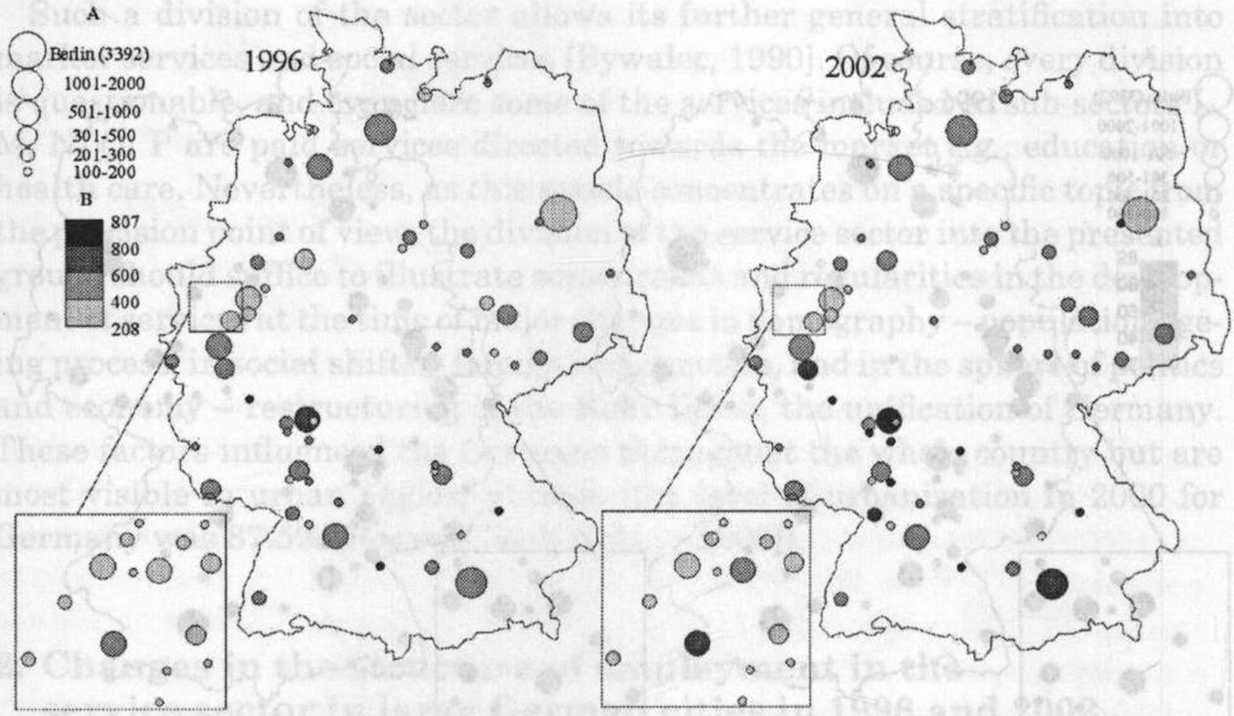

Fig. 3. The numbe of service sector workers per 1000 inhabitants of large German cities in 1996 and in 2002

Note: A – population in thousands; B – the number of service sector workers per 1000 inhabitants
Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland.

In 1996, the minimum and maximum of the services burden index were noted in Herne – 209, and in Koblenz – 779. However, in 2002 the extremes rose respectively with the lowest number in Bottrop – 262, and the highest in Frankfurt am Main – 808. The differences are as much quantitative as qualitative. It is also worth mentioning that in 1996 only in 7% of the cities (5) with 600–800 service sector workers per 1000 persons, in 51.4% of the cities the services burden index reached 400–600, and in 41.6% it was below 400. In 2002, the maximum extremity changed significantly, namely, there were 17% of the cities (13) with more than 600 service sector workers per 1000 persons. Moreover, another spatial issue should be taken into account – both in 1996 and in 2002 the services burden index did not exceed 540 in the former East Germany. Potsdam was the only exception to that rule, with 601 service sector workers per 1000 persons in 2002. On the other hand, the services burden index in the former West Germany surpassed 540 in 22% of cities in 1996, and in 35% of the cities in 2002 (Fig. 3). What can also be distinctly noticed is the fact that in 1996 there was a clearly defined district of the Ruhr Basin, with the share of service sector workers below 400 per 1000 persons. In contrast, the cities with highest numbers of workers employed in services were found in the Southern regions of the former West Germany in Frankfurt am Main, Wiesbaden, Stuttgart, Munich, and others (Fig. 3). The explanation of the fact is quite simple as the service sector is boosted in the area by the presence of various institutions and high rank services, such as the majority of European and world banks (Frankfurt am Main), scientific research institutes, technological parks (Regensburg, Stuttgart, and Munich), specialist spas with numerous clinics, convalescent homes, social venues like theatres, culture institutions, entertainment places (Wiesbaden). These cities are characterized by their specific functionality, as they are known for numerous cultural events also related to their location appealing to tourists, who visit the Frankish Alb and Bavarian Plateau). Due to all the factors listed above the services burden index exceeds 700 per 1000 persons.

Another analyzed element was the structure of the employed in particular services subsectors according to the selection. Considering a general division into sections G, H, I, J, K (G – wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods, H – hotels and restaurants, I – transport, storage and communication, J – financial intermediation, K – real estate, renting and business activities), which are market services and selection services L, M, N, O, P (L – public administration and defence; compulsory social security, M – education, N – health and social work, O – other community, social and personal service activities, P – activities of households), thus the taking public character into account, it is worth noticing that both in 1996 and 2002 in 86% of the cities (62) there was a higher proportion of those working in market services to those in non-market servicing. It is also essential to mention that the share of those working is decreasing yearly if compared to the general number of those working in G, H, I sections, which are basic services. The average for the considered set of cities was 35.3% in 1996 and in 2002 it was 32.1% (of the working in G, H, I). Examining the part of the employed in those sections, according to cities size categories, it should be noted that in the cities of 100–200 thousand inhabitants, in 1996, there were 36.6% of the employed, while 2002 saw 33.1% of the general employment here, and in the cities from 500 thousand to one million inhabitants there were 37.4% and 33.6% of those, respectively; the percentage for Berlin looking as follows: 30.5% and 27.4% in the respective years (Table 1).

From numerous researches it can be stated that in the period 1970–1996 an increase in services employment and a decrease in two other sectors was generally noted in Germany. In basic services sections (G, H, I) it was a minimal

Table 1. The number of the working in services in large German cities in 1996 and 2002

Population in thousands				101–200	201–300	301–500	501–1000	1001–2000	3992–Berlin
1996	total		1	2580.8	2729	2012.9	3068.9	1878.8	1581.9
	sections	total	1	1759.3	201.7	1465.2	2344.2	1476.5	1224.9
			2	68.2	74.0	72.8	76.4	78.6	77.4
		G, H, I	1	644.4	696.1	515.1	876.3	529.0	374.2
			2	36.6	34.5	35.2	37.4	35.8	30.5
		J, K	1	318.2	412.5	332.7	630.8	403.1	270.9
			2	18.1	20.4	22.7	26.9	27.3	22.1
		L, M, N, O, P	1	796.6	909.6	617.4	837.2	544.4	579.8
			2	45.3	45.1	42.1	35.7	36.9	47.3
2002	total		1	3066.1	2388.3	2083.0	3259.1	1973.7	1531.4
	sections	total	1	2243.7	1888.9	1614.6	2629.1	1608.4	1272.5
			2	73.2	79.1	77.5	80.7	81.5	83.1
		G, H, I	1	741.7	603.6	520.5	884.5	518.2	348.2
			2	33.1	32.0	32.2	33.6	32.2	27.4
		J, K	1	506.6	466.7	430.2	854.7	520.0	312.6
			2	22.6	24.7	26.6	32.5	32.3	24.6
		L, M, N, O, P	1	995.6	818.5	663.6	889.8	570.2	611.7
			2	44.4	43.3	41.1	33.8	35.5	48.1

Note: 1 – in thousands; 2 – in percentage; G – wholesale and retail trade, repair of motor vehicles, motorcycles, and personal and household goods; H – hotels and restaurants; I – transport, storage, and communication; J – financial intermediation; K – real estate, renting, and business activities; L – public administration and defense; compulsory social security; M – education; N – health and social work; O – other community, social, and personal service activities; P – activities of households

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland.

growth, while in higher rank services it was over twice as big [Kulke, 1998, 188]. In the higher rank market services (IV sector – J, K – quaternary activity) the average for cities of over 100 thousand inhabitants was 23% in 1996 and in 2002 it was 27.5% and in the cities from 500 thousand to 2 million there were 32%, on the average, of the employed in those sections in 2002, and in Berlin 24.4% (compare Table 1).

The share of the working inhabitants in the market services (G, H, I, J, K sections) in the overall number of the employed in services in large German cities was slightly spatially diversified. A little smaller part of the working in those sections can be noted in the cities of the eastern part of Germany (especially in 1996 – Fig. 4), higher in the western Länder (the area of the former Federal Republic of Germany)

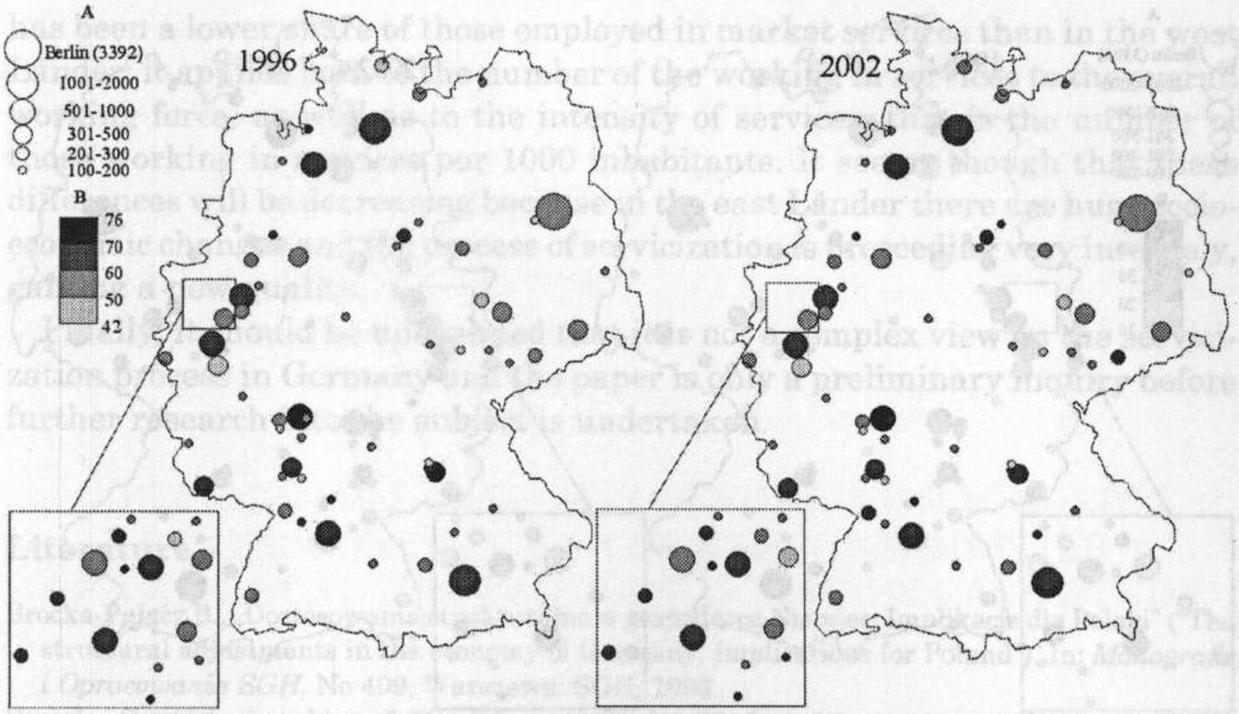

Fig. 4. The number of the working in market servicing (G, H, I, J, K sections)* to the general number of the employed in services in large German cities in 1996 and 2002

Note: A – population in thousands; B – the number of the working in market servicing (G, H, I, J, K sections)* to the general number of the employed in services: see explanations in the text

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland

A comparatively small share of the working in market services to the overall employment in the third sector was noticed in such university cities as Heidelberg (49.5%) and Cottbus (46.4%), and the most people in market services sector (above 65%) work in cities lying in west Germany; these are the cities bound with both world market, such as Frankfurt am Main (European Central Bank, Stock Exchange, numerous bank centers), Düsseldorf (numerous banks, insurance companies centers), Hamburg (trade and transport metropolis), as well as smaller cities, such as Fürth, Heilbronn or Mülheim an der Ruhr, where a high percentage of the employed in market services is a result of restructuring and creation of new work places in this sector in the Ruhr Basin.

In the analyzed period (1996 and 2002), in the range of market services, there were quite a few movements on the part of the working in the G, H, I and J, K sectors. Hence, with the exception of Bonn and Lepzig, in all other cities there was a decrease in the inhabitants working in sectors G, H, I and a considerable increase in those working in J, K sectors (Fig. 5)

And so, in 1996, in 55.5% (40 cities) of the given city set this share was from 10 to 20% and in the following 40.3% of the cities it was on the level of 20–30%; in 2002, there were only 10 cities (14%), in which those working in J, K sectors were below 20% and in almost 70% of the cities the share of people working in J, K sectors was from 20 to 30%, and in the other – 16.6% from 30 to 40%. In

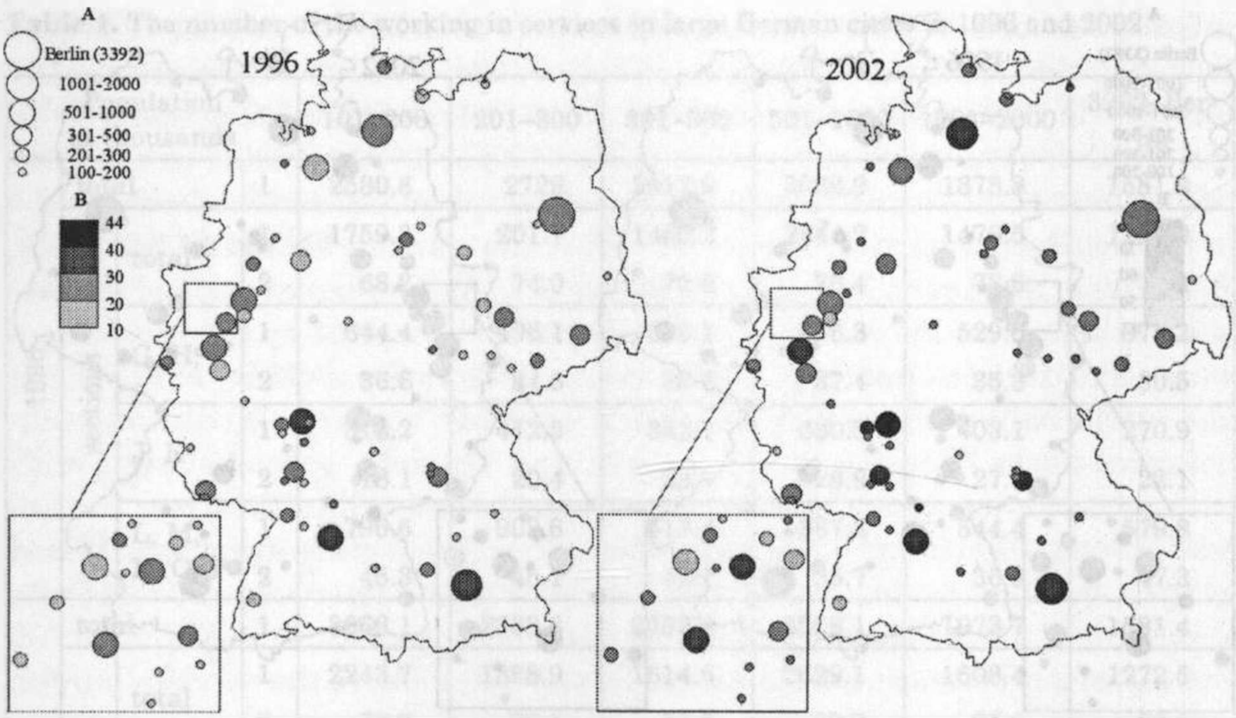

Fig. 5. Inhabitants working in market servicing (J, K sections) to the overall number of the working in services in large German cities in 1996 and 2002

Note: A – population in thousands; B – inhabitants working in market servicing (J, K sections) to the overall number of the working in services (%)

Source: authors' own elaboration based on data from Statistisches Landesamt Deutschland.

the last case it is a four times increase, for in 1996 there were 3 cities (4.2%), in which the number of the working in J, K sectors exceeded 40% and in 2002 there were 12 such cities.

3. Conclusion

To sum up, it is essential to consider that both in Germany, as well as in many other developed countries, the number of those working in service sector is continually increasing. From the conducted research it can be concluded that in large German cities the process of servicization measured by the number of the employed in services is very intense, and in cities that were connected with production activities there was a turn towards developing the service sector, especially the services of the higher order. The increase in the importance of this sector is undoubtedly connected with a growing demand for different services, starting from satisfying basic needs to specialized services such as banking, financial servicing, education, IT, *etc.*

The level of servicization in large German cities shows a considerable spatial differentiation. The distinction between the western and eastern parts of Germany is still well visible. Till now, in the former East Germany, there has been a lower share of those employed in market services than in the west Länder; it applies both to the number of the working in services to the overall working force, as well as to the intensity of services, that is the number of those working in services per 1000 inhabitants. It seems though that these differences will be decreasing because in the east Länder there are huge socio-economic changes and the process of servicization is proceeding very intensely, gaining a new quality.

Finally, it should be underlined that it is not a complex view on the servicization process in Germany and the paper is only a preliminary inquiry before further research into the subject is undertaken.

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