

# CHANGES IN THE EMPLOYMENT STRUCTURE AND THE FUNCTIONS OF POLISH TOWNS IN THE YEARS 1984 - 2000

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## ABSTRACT

The paper presents the changes in the structural function of Polish towns (on the basis of the structure of employed) in the years 1984-2000. It is shown that the system transformation process and the introduction of free market caused visible changes on the economic as well as social plane of Polish towns. These changes manifest themselves on one hand in their de-industrialisation, while on the other hand in the significant growth of the service sector role. The study was carried out on the whole set of Polish towns what counted 799 towns in 1984, and 874 in 2000.

**Key Words:** Polish towns, structure of employed, function of towns

## INTRODUCTION

Among all of the elements of the settlement system towns play the main role being the most developed group of units. They play leading role in the socio-economic development of the country forming at the same time particular socio-economic space. Towns organise the life in the country on every level – economic, social-political and cultural (Barański, 1980: 207; Szymańska, 1989).

Socio-economic transformations and the introduction of free market in Poland after 1989 caused significant changes on the economic as well as social plane. The changing economy in the transformation period caused significant changes in the employment structure. The liquidation of numerous working places and the introduction of new technologies had an influence among others on the decrease of the number of employed mainly in the industry and building. So the system transformation process and the introduction of free market caused

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visible economic and social changes in Polish towns manifesting among others on the one hand in de-industrialisation, while on the other hand in the significant growth of the service sector's role. Decreasing role of the industrial sector and advancing servicisation of Polish towns in the employment sphere, production of the Gross Domestic Product (GDP) being a reflection of adaptation processes, increasing competitiveness, requirements of the contemporary markets, and adopting the lifestyle of countries in the post-industrial phase have all been noticed.

The transformations above mentioned have an impact on the functional changes of many towns measured not only by the number of employed in the particular branches of the national economy, but they also manifest themselves in the economic activity of towns, in its morphology and physiognomy, the value of the Goss Domestic Product produced by the town.

**Table 1. Changes of the employment structure in Polish towns in 1984, 1998 and 2000 (according three sectors)**

Percentage of employed in sector I	1984		1998		2000	
	a	b	a	b	a	b
< 40	774	96.9	873	99.9	873	99.9
40 - 60	24	3.0	1	0.1	1	0.1
60 - 80	1	0.1	0	0.0	0	0.0
> 80	0	0.0	0	0.0	0	0.0
total	799	100.0	874	100.0	874	100.0

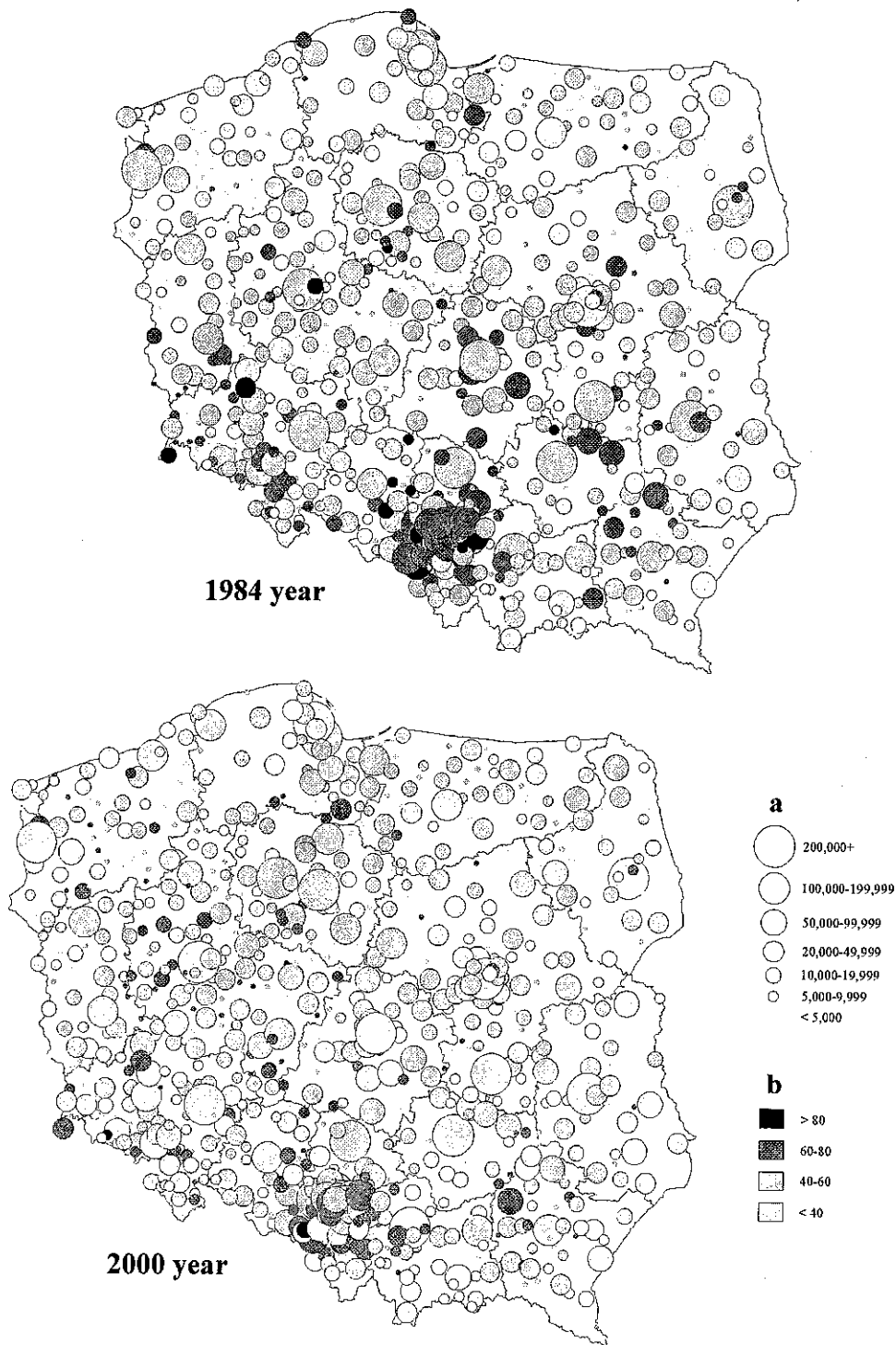
Percentage of employed in sector II	1984		1998		2000	
	a	b	a	b	a	b
< 40	341	42.7	361	41.3	384	43.9
40 - 60	315	39.4	380	43.5	376	43.0
60 - 80	127	15.9	123	14.1	108	12.4
> 80	16	2.0	10	1.1	6	0.7
total	799	100.0	874	100.0	874	100.0

Percentage of employed in sector III	1984		1998		2000	
	a	b	a	b	a	b
< 40	321	40.2	153	17.5	138	15.8
40 - 60	384	48.1	403	46.1	386	44.2
60 - 80	80	10.0	259	29.6	273	31.2
> 80	14	1.8	59	6.8	77	8.8
total	799	100.0	874	100.0	874	100.0

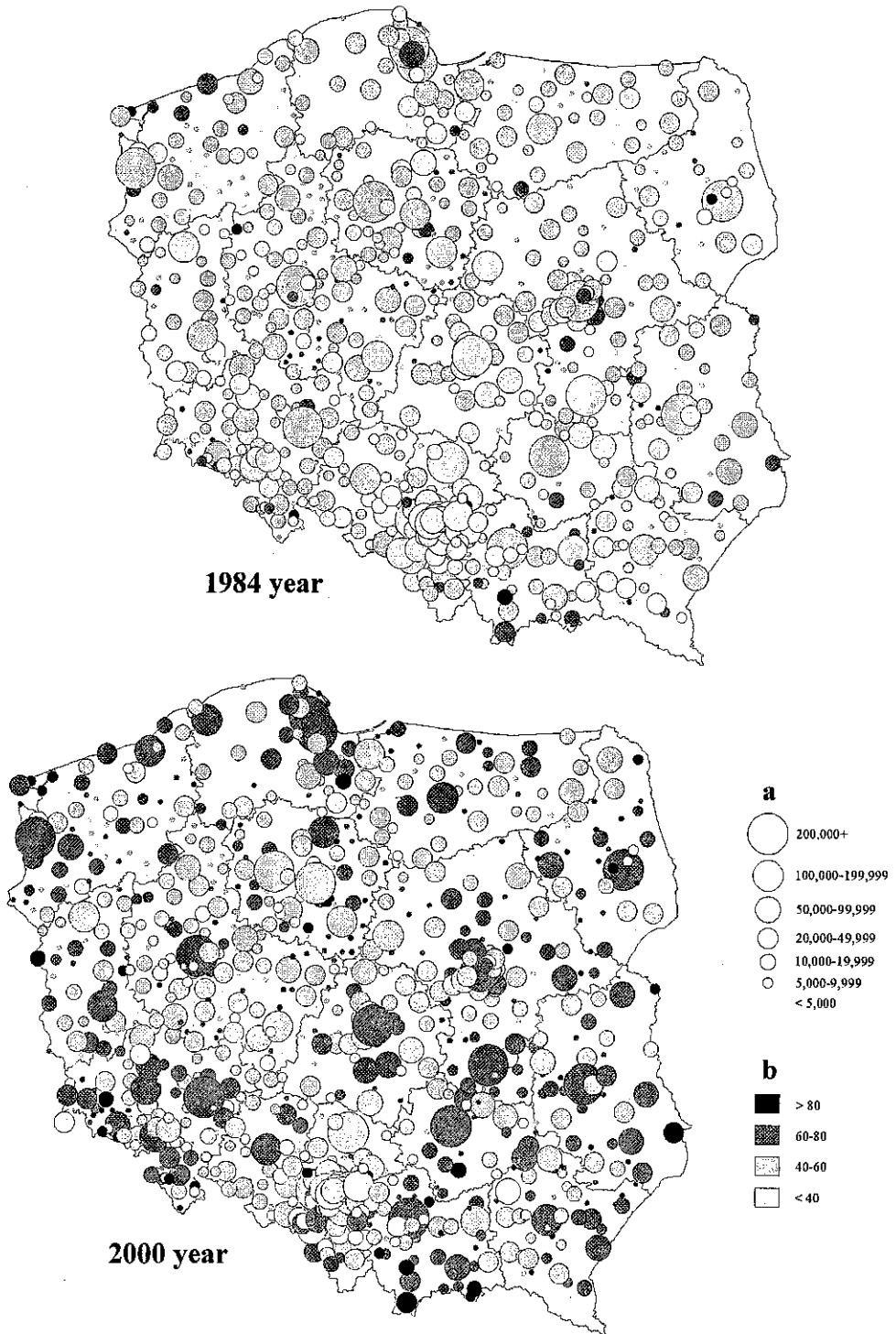
Notes: a = Number of towns; b = percentage of total;

Source: Author's calculations based on the Central Statistical Office (GUS)



**Figure 1.** Polish towns according to the employment structure in the second sector

*Notes:* a = Size of towns; b = percentage of employed in sector II



**Figure 2.** Polish towns according to the employment structure in the third sector

*Notes:* a = Size of towns; b = percentage of employed in sector III

The study carried out on the whole set of Polish towns, what counted 799 towns in 1984, 874 towns in 1998 and 874 in 2000, enabled the observation of this process. An essential goal of the study was to trace the changes in the number and portion of employed in the sections of economic activity according to three sectors: first (agriculture, forestry, fishing and mining), second (industry and building) and third (services in a wider meaning), but especially in the second and third sector (Table 1). The author's intention was to check on what level the decreasing share of the employed in the second sector is recompensed by the increasing percent of employed in the third sector and what kind of tendencies are observed in the changes of the towns functions.

This research made also possible to compare the actual (2000) employment structure with the functional classification of towns carried out by Jerczyński for the whole set of Polish towns in 1973 (Jerczyński, 1977).

In the elaboration we concentrated to the determination of the towns' functions in single aspect, as the employment structure (not going into the question to determine the functions on the basis of the urban production types, their endo- and exogenism, etc.). This aspect of the towns' functions is the easiest to handle.

## CHANGES OF THE EMPLOYMENT STRUCTURE IN POLISH TOWNS

Analysing the changes in the functional structure of Polish towns (based on the employment structure) for the years 1984, 1998 and 2000 we should look at this problem in the wider context of urbanisation in Poland till 1989 and its industrial character, and urbanisation after 1989 and its new quality dimension, i.e. general de-industrialisation of towns and growth of the service sector's significance.

Not having enough statistical data at our disposal for the whole research period concerning the employment structure, commutation to towns, production value (this would require to study each town separately) we concentrated to the analysis of transformations of the employment structure in Polish towns in 1984, 1998 and 2000 according three sectors of the national economy (sector I – agriculture, forestry, fishing and mining, sector II – industrial production and building, sector III - services).

In 1984 in as many as 143 towns (17.9%) from the 799 total 60% and above 60% of the total employed worked in the II sector, in next 144 towns (18.0%) employed in industry and building was between 50 and 60 percent. So in 1984 in more then 1/3 of the towns (287 towns, i.e. 35.9% of the total) over 50% of the employed worked in the second sector. In 2000 the number of towns where  $\geq 50\%$  worked in the second sector was 259, i.e. 29.6% of the total number of towns (874). In this in 114 towns (13%)  $\geq 60\%$  of the employed worked in the second sector, in the remaining 145 towns (16.6%) from 50 to 60 percent.

In the analysed period 1984-2000 the percentage of towns in which  $\geq 50\%$  worked in the second sector decreased by 6.35, while there were 17.9% towns in 1984 and 13.0% in 2000 where  $\geq 60\%$  worked in the second sector (Table 2).

Analysing the employment structure in towns in the third sector we can state that strongly significant changes took place here. In 1984 there were 226 towns (28.3% of the total number) in which 50 percent of the employed or more worked in services, while in 2000 there were over 66.8%, i.e. 584 such towns. This is a significant change not only quantitatively, but also qualitatively. Comparing the number of towns where 60% and over 60% were employed

in services will should underline that there were 94 i.e. 11.8% such towns in 1984, while in 2000 already 349, i.e. 40%. This means that during 16 years the number of towns in which 60 percent or more of the employed worked in services grew four times.

**Table 2. Number of towns in Poland according to the employment structure in the second and third sector ( $\geq 50\%$ ) compared to the total number of towns in 1984 and 2000**

Number of towns in Poland according to the employment structure in the second and third sector ( $\geq 50\%$ ) compared to the total number of towns in 1984 and 2000							
Year	Sector	Total		in this			
		a	b	50% - 60 %		$\geq 60\%$	
				a	b	a	b
1984	II	287	<b>35.9</b>	144	<b>18.0</b>	143	<b>17.9</b>
	III	226	<b>28.3</b>	132	<b>16.5</b>	94	<b>11.8</b>
2000	II	259	<b>29.6</b>	145	<b>16.6</b>	114	<b>13.0</b>
	III	584	<b>66.8</b>	234	<b>26.8</b>	349	<b>39.9</b>

*Notes:* a = Number of towns; b = percentage of total number of towns.

*Source:* Author's calculations based on the Central Statistical Office (GUS)

The analysis of correlation coefficient between the percentage of employed in services and size category of towns shows that in 1984 there was a strong correlation between the size of the town and the share of employed in services and it equalled 0.9825 for the whole set of towns. The highest positive dependency was observed for towns with more than 200 thousand inhabitants (0.9771) and for medium size towns from 20 to 50 thousand inhabitants (0.7080). The correlation coefficient for small towns with less than 10 thousand inhabitants and for towns with inhabitants from 50 to 100 thousand was about 0.4000. In 2000 the correlation coefficient for the whole set of towns was 0.8141 (in 1998 – 0.9525) and distinctly decreased in the first three size categories. It equalled 0.0868 for towns < 5 thousand, 0.2583 for towns 5-10 thousand and 0.2229 for towns 10-19.9 thousand (see Table 3). The value of correlation coefficient increased for towns 50-99.9 thousand and 100-199.9 thousand and was 0.5547 and 0.5187, respectively. For towns with 200 thousand and more inhabitants the correlation was 0.7162 (see Table 3).

**Table 3. Analyses of Correlation Coefficients in Services**

	1984 Year	2000 Year
< 5,000	0.403064	0.086868
5,000 – 9,999	0.425002	0.258327
10,000 – 19,999	0.369845	0.222947
20,000 – 49,999	0.708005	0.660946
50,000 – 99,999	0.432674	0.554701
100,000- 199,999	0.272197	0.518698
200,000 +	0.977129	0.716203

*Source:* Author's calculations based on the Central Statistical Office (GUS)

## TYPES OF TOWNS IN POLAND ACCORDING TO FUNCTIONAL DOMINANCE

Studies concerning the functional structure of towns are numerous and methodically differentiated. The literature of this problem is quite comprehensive (Dziewoński 1971, Jerczyński 1977, Siemiński 1980, Matczak 1992 and many others) and reaches the 40ties-50ties years of the 20th century (Wejchert, 1947, Kostrowicki 1952; Kosiński, 1958).

During the analysed 16 years period (1984-2000) significant changes took place in the types of towns defined on the basis of the functional dominance measured by the percentage of employed in the three sectors of the national economy. We have used here the functional typology of towns elaborated by Jerczyński (1977) where the author taking into account the number of employed in towns in 1973 in the three basic sector of the national economy (sector I; II; and III) distinguished ten types of towns: agrarian, industrial, service, industrial-service, service-industrial, agrarian-industrial, industrial-agrarian, agrarian-service; and service-agrarian towns. The towns without dominating function make the tenth group (Jerczyński, 1977).

Regarding the character of functional dominance in 1984 the types of towns prevailed decidedly: service-industrial, industrial-service and industrial towns. These three functional categories together included 75.5 % (604 towns) of the total number (799 towns), while in 1973 these types were also the most frequent and included 67.4% of towns and 93.3% of the urban population lived in them (Jerczyński M., 1977: 20-53). We realise that it is simplification in some extent to compare the results obtained by Jerczyński, who defined the functional dominance of towns on the basis of the employment structure, with our results what was obtained on the basis of the structure of persons working in towns. However, it does not disturb to catch the general directions of transformations in the functional types of Polish towns. Moreover, basing on the structure workers (and not on the employment structure) came from the incomplete data concerning the employment structure for the whole set of towns for 1984, 1998 and 2000.

In comparison to 1984 in 2000 the number of service towns (S) grew four times that made 39.9% of the total towns (349) (in 1984 – 13.3%, in 1973 – 7.4%), a little decreased the share of service-industrial (SI) towns from 29.4% to 28.7% (156 towns) and industrial-service (IS) ones from 27.5% (220 towns) in 1984 to 17.8% (156 towns) in 2000. These three categories together included 756 towns in 2000 what makes 86.5% of the total number. The number of industrial towns (I) decreased almost twice from 197 (24.2%) in 1973 to 149 (18.6%) in 1984 and 115 towns (13.2%) in 2000 (Table 4). During the period 1973-2000 the number of towns without distinct dominating function (X) drastically decreased from 60 (7.4%) in 1973 to 35 (4.4% in 1984 and one town (0.1%) in 2000. Industrial and industrial-service towns form the most numerous group of towns in Poland in 1973 as well as in 1984, 47.3% (292 towns) and 46.2% (369 towns), respectively. In 2000, as it was mentioned above, service – 39.9%, and service-industrial centres – 28.7%, were the most numerous (Table 4).

Table 4. Types of towns in Poland according to the character of functional domination

Types of towns according to the character of functional domination	Sector I			Sector II			Sector III			1973*		1984		1998		2000	
	max.	min.	max.	min.	max.	min.	max.	min.	a	b	a	b	a	b	a	b	
	in % of the total number of employed																
agricultural (A)	100.0	50.0	40.0	0.0	40.0	0.0	40.0	0.0	23	2.8	2	0.3	0	0.0	0	0.0	
agro-industrial (AI)	60.0	37.5	50.0	25.0	25.0	0.0	25.0	0.0	12	1.5	1	0.1	1	0.1	1	0.1	
agro-servicing (AS)	60.0	37.5	25.0	0.0	50.0	25.0	50.0	25.0	51	6.2	13	1.6	0	0.0	0	0.0	
industrial (I)	40.0	0.0	100.0	50.0	40.0	0.0	40.0	0.0	197	24.2	149	18.6	130	14.9	115	13.2	
industrial-agricultural (IA)	50.0	25.0	60.0	37.5	25.0	0.0	25.0	0.0	25	3.1	6	0.8	1	0.1	0	0.0	
industrial-servicing (IS)	25.0	0.0	60.0	37.5	50.0	25.0	50.0	25.0	188	23.1	220	27.5	162	18.5	156	17.8	
servicing (S)	40.0	0.0	40.0	0.0	100.0	50.0	50.0	50.0	60	7.4	106	13.3	317	36.3	349	39.9	
servicing-agricultural (SA)	50.0	25.0	25.0	0.0	60.0	37.5	37.5	37.5	34	4.2	32	4.0	2	0.2	1	0.1	
servicing-industrial (SI)	25.0	0.0	50.0	25.0	60.0	37.5	37.5	37.5	164	20.1	235	29.4	255	29.2	251	28.7	
no dominant type (X)	50.0	25.0	50.0	25.0	50.0	25.0	50.0	25.0	60	7.4	35	4.4	6	0.7	1	0.1	
								Suma	814	100.0	799	100.0	874	100.0	874	100.0	

Notes: a = Number of towns; b = percentage of total number of towns;

Source: 1973\* (Jerczyński M., 1977); 1984, 1998, 2000 -- The author's own elaboration on the basis of data from Central Statistical Office GUS



So we have to underline that in the 70ties and 80ties years of the 20th century the second sector (industry and building) was a deciding element of the economic basics in the majority of Polish towns (Jerczyński, 1977: 38). In the post-war years until the middle 80ties of the 20th century the development of towns very strongly depended on the increment of employment in the industry. Such dependency was natural to a great degree in a country with industrialisation process, but the special strength of this dependency in Poland resulted also from the relatively weak development pace of services. In this situation the localisation of industry on the one hand was treated as an instrument to rise the economic level of weakly developed regions, while on the other hand it was at the same time the condition of development and formation of towns. Towns, where no industrial investment were made developed weakly, this concern especially small towns (Wróbel, 1978: 24). Industry as a whole or almost as a whole was counted to the towns-forming functions giving basis for the existence of the town. Industrialisation was considered the main factor for accelerate the economic growth in Poland. So the very quick industrialisation of the country was undoubtedly the driving force of the Polish urbanisation processes, especially in the years 1950-1980, what manifested itself also in the functional types of towns with the domination of industrial towns (Szymańska, Matczak, 2002).

In Poland a lot of towns were over-industrialised and there was a great negligence in the technical and social infrastructure, underdevelopment of services and numerous institutions satisfying basis social demands.

The industrialisation level of a town was connected with its size. This concerns first of all towns with more than 20 thousand inhabitants where there occur a distinct rule: the higher industrialisation level, the less among them small towns with less than 5 thousand inhabitants. Among highly industrialised small towns there are 27.2% such small towns (up to 5 thousand inhabitants), among industrialised on medium level 40.1%, and among the towns with the lowest industrialisation level 60.4%. The percentage of town having from 10 to 20 thousand inhabitants – 13.7%, is the smallest among the towns with the lowest industrialisation level, while among highly industrialised it is 32.5%, and on medium level 34.3%. An interesting dependency occurs also among the biggest towns, for highly industrialised towns include first of all towns with inhabitants from 100 to 200 thousand, while among weakly industrialised ones towns with more than 200 thousand inhabitants dominate (see Fig. 3) (Węgleński, 1992: 26; Szymańska and Matczak, 2002: 44).

The main development force of Polish towns in the post-war period until the middle 60ties years of the 20th century was undoubtedly the industry. Therefore the highly industrialised towns showed the greatest development dynamics. In reality, as Węgleński notices, these dependencies are not such simple. The dependency that high industrialisation goes together with higher increment dynamics in the population number occur only among small towns. In big ones with more than 100 thousand inhabitants this dependency is considerably smaller and their development dynamics depends almost only on their size and not on the industrialisation level (Węgleński, 1992: 27; Szymańska and Matczak, 2002: 44).

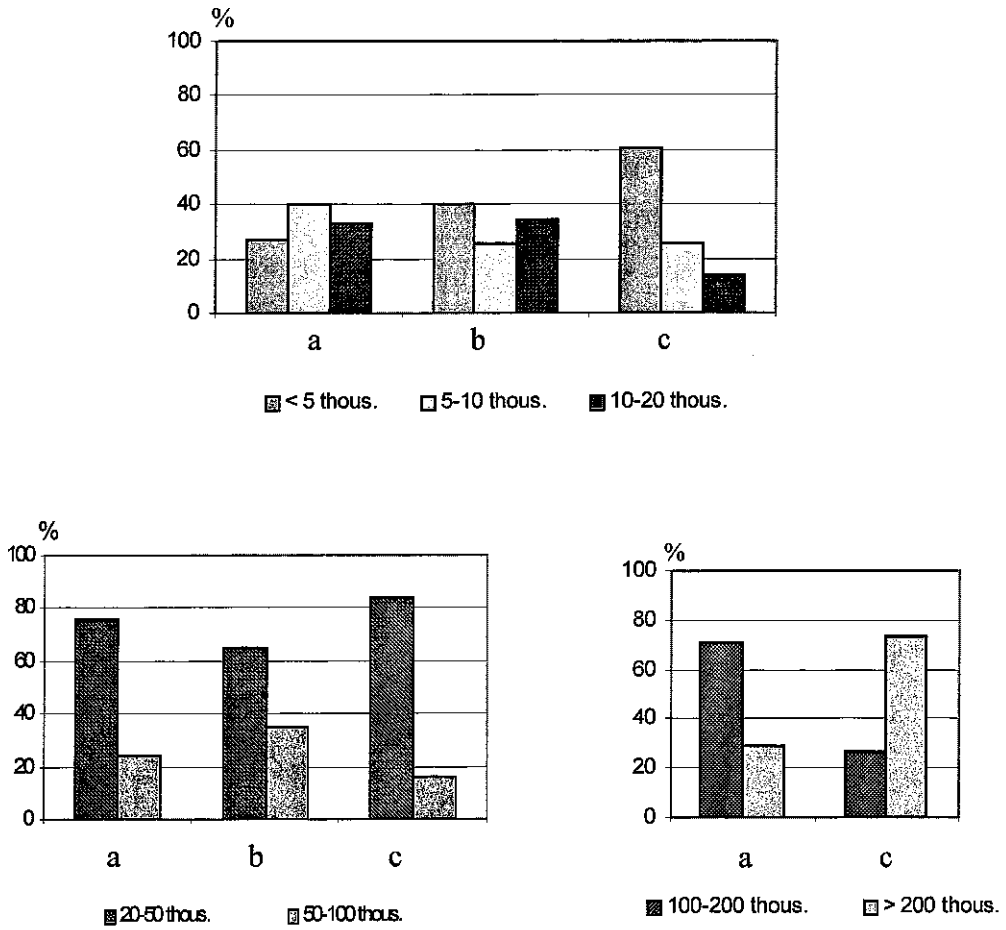


Figure 3. Urban size and industrialization (%)

Notes: a = High industrialization; b = Medium industrialization; c = Low industrialization;  
 Source: Węgleński, 1992: 26

We should pay attention here to the problem of commutation to many Polish towns what took place in the 60-80ties years of the 20th century. In some towns in Poland the number of commuters reached even 50% (Szymańska, 1988). This testifies that urbanisation did not kept pace with the quicker progress of industrialisation. In effect the vehement growth of the employment in the industry was not accompanied by the same quick increment in the number of inhabitants in many industrial towns. The consequences of the urbanisation not following up the quicker advancing industrialisation were especially visible in the mostly industrialised towns. They differed from the rest of towns first of all by the fact that extraordinary high number of persons commuted. This meant that in the highly industrialised towns the productive functions distinctly prevailed over the living functions. The towns were not able to ensure flats for the great part of persons employed on their territories (Węgleński, 1992:30; Szymańska and Matczak, 2002).

During the analysed period (1984-2000) distinct changes occurred in the functional types of towns in their particular size categories (Table 5). Among small towns to 5 thousand inhabitants the number of agrarian and agrarian-service towns drastically fell from 10 (3.9%) in 1984 to 0 in 2000, while the number of service towns grew more than twice from 60 (23.5%) in 1984 to 141 (50.2%) in 2000.

**Table 5. Types of towns in Poland according to the character of functional domination in the particular size categories of towns**

Specification		Types of towns according to the character of functional domination										Total	
		A	AI	AS	I	IA	IS	S	SA	SI	X		
1984	a	2	1	13	149	6	220	106	32	235	35	799	
	b	0.3	0.1	1.6	18.6	0.8	27.5	13.3	4.0	29.4	4.4	100.0	
1998	a	0	1	0	130	1	162	317	2	255	6	874	
	b	0.0	0.1	0.0	14.9	0.1	18.5	36.3	0.2	29.2	0.7	100.0	
2000	a	0	1	0	115	0	156	349	1	251	1	874	
	b	0.0	0.1	0.0	13.2	0.0	17.8	39.9	0.1	28.7	0.1	100.0	
		Types of towns according to size categories											
< 5,000	1984	a	2	0	8	24	2	50	60	27	57	25	255
		b	0.8	0.0	3.1	9.4	0.8	19.6	23.5	10.6	22.4	9.8	100.0
	2000	a	0	1	0	36	0	44	141	0	58	1	281
		b	0.0	0.4	0.0	12.8	0.0	15.7	50.2	0.0	20.6	0.4	100.0
5,000-9,999	1984	a	0	0	3	46	2	40	28	3	53	7	182
		b	0.0	0.0	1.6	25.3	1.1	22.0	15.4	1.6	29.1	3.8	100.0
	2000	a	0	0	0	42	0	33	70	1	35	0	181
		b	0.0	0.0	0.0	23.2	0.0	18.2	38.7	0.6	19.3	0.0	100.0
10,000-19,999	1984	a	0	0	1	26	2	49	14	1	66	2	161
		b	0.0	0.0	0.6	16.1	1.2	30.4	8.7	0.6	41.0	1.2	100.0
	2000	a	0	0	0	21	0	35	63	0	64	0	183
		b	0.0	0.0	0.0	11.5	0.0	19.1	34.4	0.0	35.0	0.0	100.0
20,000-49,999	1984	a	0	1	1	27	0	53	3	1	34	1	121
		b	0.0	0.8	0.8	22.3	0.0	43.8	2.5	0.8	28.1	0.8	100.0
	2000	a	0	0	0	12	0	32	36	0	57	0	137
		b	0.0	0.0	0.0	8.8	0.0	23.4	26.3	0.0	41.6	0.0	100.0
50,000-99,999	1984	a	0	0	0	14	0	12	1	0	14	0	41
		b	0.0	0.0	0.0	34.1	0.0	29.3	2.4	0.0	34.1	0.0	100.0
	2000	a	0	0	0	1	0	10	17	0	22	0	50
		b	0.0	0.0	0.0	2.0	0.0	20.0	34.0	0.0	44.0	0.0	100.0
100,000-199,999	1984	a	0	0	0	8	0	9	0	0	4	0	21
		b	0.0	0.0	0.0	38.1	0.0	42.9	0.0	0.0	19.0	0.0	100.0
	2000	a	0	0	0	3	0	2	9	0	9	0	23
		b	0.0	0.0	0.0	13.0	0.0	8.7	39.1	0.0	39.1	0.0	100.0
200,000+	1984	a	0	0	0	4	0	7	0	0	7	0	18
		b	0.0	0.0	0.0	22.2	0.0	38.9	0.0	0.0	38.9	0.0	100.0
	2000	a	0	0	0	0	0	0	13	0	6	0	19
		b	0.0	0.0	0.0	0.0	0.0	0.0	68.4	0.0	31.6	0.0	100.0

Notes: a = Number of towns; b = percentage of towns in particular size and type categories;

Source: Author's calculations based on the Central Statistical Office (GUS)

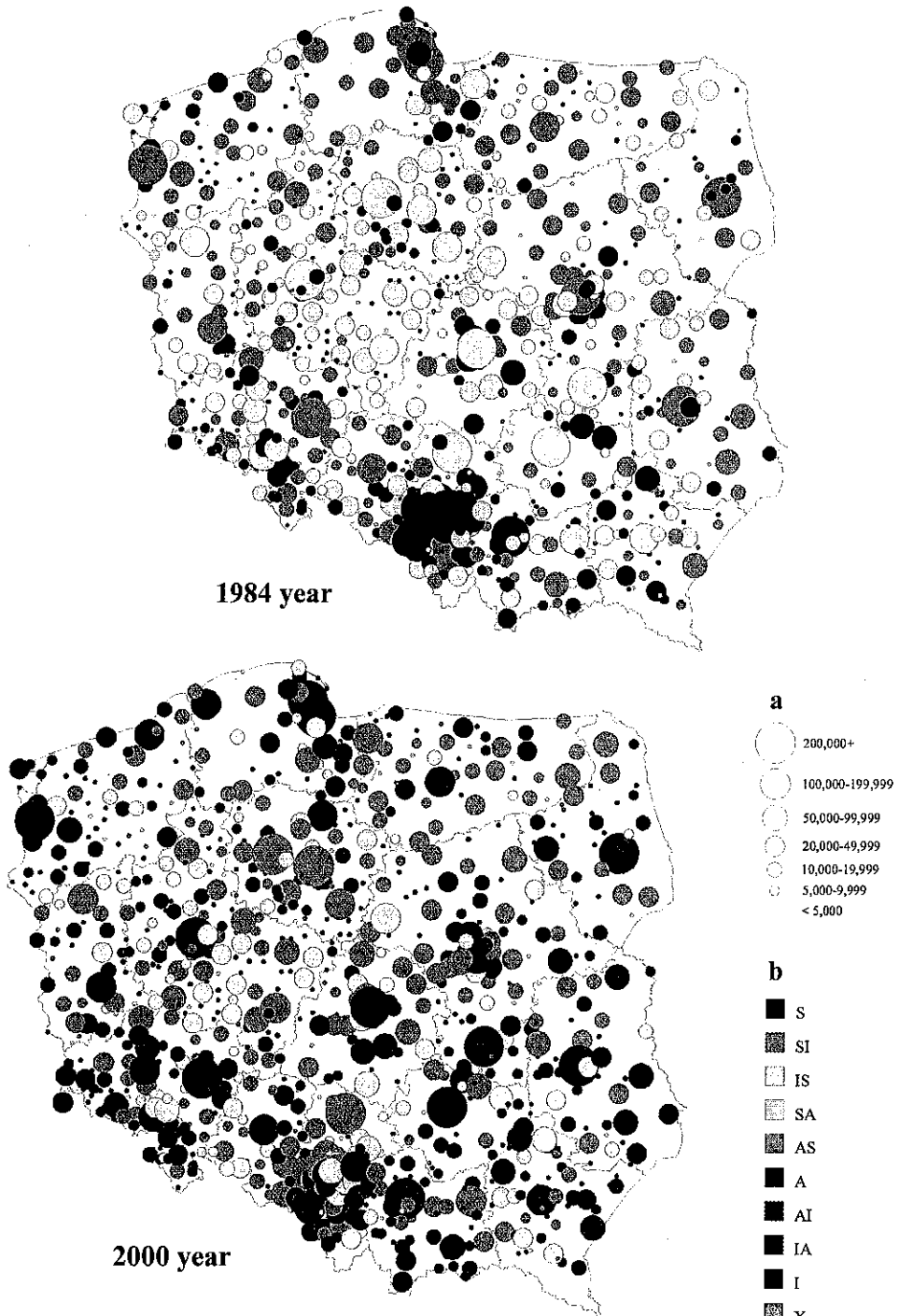
In the group of units from 5,000 to 9,999 persons service towns gained on significance from 15.4 (in 1984) to 38.7 (in 2000) percent of the total number of towns in this size category. A light decrease was noted in the industrial, service-industrial and industrial-service types of towns.

Significant functional changes were observed in the case of towns with 10-19.9 thousand inhabitants. In 1984 in this group service-industrial (40.1%), industrial-service (30.4%) and industrial (16.1%) towns prevailed, while in 2000 the share of industrial towns considerably decreased and at the same time the significance of service function increased from 8.7% (1984) to 34.4% (2000). The same tendency, i.e. decreasing number of industrial and industrial-service towns and increasing number of service towns, was noted in the 20-49.9 thousand and 50-99.9 thousand groups. In the first of these size categories the share of towns with industrial function fell from 22.3% in 1984 to 8.8% in 2000, while in the second one from 43.1% (1984) to 2.0% (2000). The share of towns with service function grew more than 10 times in the 20-49.9 thousand category and 15 times in the 50-99.9 thousand category. The share of towns with service-industrial character also increased in big cities with 100 thousand and over 100 thousand inhabitants. While in 1984 industrial and industrial-service functions dominated in this category, in 2000 service and service-industrial functions prevailed. The greatest transformations in functional types were also observed here, for in 1984 in the group of towns with  $\geq 100,000$  – 199,900 and  $\geq 200$  thousand inhabitants there were no service towns, while in 2000 the share of such towns was 39.1% of the total number of towns in this size category. The percentage of the industrial-service towns was the same – 39.1. In big cities with  $\geq 200$  thousand inhabitants only two functional types occur: service (68.4%) and service-industrial (31.6%). We have to underline this fact specially, because according to study made by Jerczyński (1977) in the group of big cities  $\geq 100$  thousand in 1973 there were industrial, industrial-service as well as service-industrial towns.

So there is a significant change not only quantitatively, but also in quality in connection with the servicisation of work, income and consumption. The share of service towns on the total functional structure increased from 7.4% in 1973 to 39.9% in 2000 (Table 4, Fig. 4). The study carried out shows that in each size category the servicisation process proceeds and the percentage of service towns increased. In the small and medium size towns the share of common, basic services grows, such as trade, transport, communication, municipal and housing management (third sector – tertiary). In big city centres the process of quarterisation and quinarisation takes place, i.e. the development of the fourth (finance, insurance, real estate turnover, marketing and advertisement) and fifth (health care, education, scientific research, state administration, justice, police, army, recreation and relaxation) sectors.

It is worth to mention here that until the end of the 80ties years of the 20th century services were very weakly developed in Poland and in 80% concentrated only in towns.

From our study it can be seen that the situation in Poland has improved considerably. It is shown among others by the changing employment structure in towns with a distinct servicisation process, understood here as the growth of the share employed in the service sector. It is worth to mention here that this is only one of the aspect of servicisation, for servicisation is a multidimensional process what proceeds quite intensively in the Central and Eastern European countries.



**Figure 4.** Types of towns in Poland according to the character of functional domination

*Notes:* a = Size of towns; b = Types of towns: S - service; SI - service-industrial; IS - industrial-service; SA - service-agrarian; AS - agrarian-service; A - agrarian; AI - agrarian-industrial; IA - industrial-agrarian; I - industrial; X - no dominant type

The first dimension of servicisation is connected with the increasing role of services in the creation of the GDP (servicisation of production), the second dimension is connected with the permanent growth of service consumption and with its increasing share in the total global consumption of a given household and the whole society (servicisation of consumption), while the third dimension is connected with the increasing employment in the service sector and with the continuously rising number of workers in services (servicisation of work, employment).

Regarding the servicisation of the creation of GDP it is worth to mention here that in the mostly developed countries of the world almost 70-75% of the GDP is created in the service sphere, the share of the industrial sector is from 20 to 25 percent, while that of the agriculture about 5%. In the United States the share of the services in the formation of the GDP is 80% (in 2001) in Great Britain 74% (in 2001), in France 71% (in 2002) and in Japan and Germany 68% (in 2001). In Poland the share of services in the GDP in 2001 was 61% (*www.cia*).

Servicisation occur also in Eastern European countries – for example in Russia from the total value of GDP produced in this country in 1998 the production of goods made 39.9% (in 1990 more than 60% of the GDP), while the production of services 52.7%. So first the first time in the Russian history services gave over 50% in the formation of the GDP (*Economic and social geography of Russia...*, 2001).

Concerning the consumption structure from the study carried out by Bywalec follows that the consumption structure of the Polish society shows a specific industrialisation of consumption being the dominating tendency in this domain (so a phenomenon characteristic first of all for the second phase of the consumption development). The reason of the slow servicisation phenomenon the above mention author sees in the fact, that in the 90ties years of the 20th century the majority of the Polish households renewed their durable goods and this accelerated industrialisation of consumption had to hamper its servicisation what comes as a rule after the industrialisation phase (is its sequence).

This not high pace of servicisation of the consumption in Poland in the 90ties years of the 20th century was also (besides the showed reasons) essentially determined by the differentiated price dynamics of consumer goods. In the years 1990-2000 the prices of services rose the most quickly (2.5 times quicker than the prices of food and 2 times quicker than the prices of industrial goods) (Bywalec 2003: 6).

By the end of the last decade of the 20th century the share of expenses for services began to increase slowly. We had here a slow but systematic servicisation process of the consumption. The value of consumption exceeded 40% of the global consumption value in Poland. The slow servicisation tempo of consumption of the Polish households during the last decade of the 20th century was caused first of all by the high dynamics of prices (Bywalec 2003: 7).

The third dimension of servicisation manifests itself in the growing number of workers (employed) in the service sector. In counties representing medium development level the service sector concentrates about 40-50% of the employed in the domestic economy, in highly developed countries the employment in services is over 55%-60%.

In Poland in 1987 35% were employed in services (*Statistical Yearbook, 1989*), while in 1995 – 42.2%. In the first sector 27.7% worked then, and in the second one 30.1%. In 1998 45.4% of total workers worked in services (sector I – 28.4%, sector II – 26.1%), (*Statistical*

Yearbook, 2000), and in 2001 already 46% (in the second sector 25.3%, the remaining 28.7% worked in the first sector) (Small Statistical Yearbook, 2002).

Analysing the spatial distribution of the functional types of towns distinguished on the basis of the dominating function based on the number of employed we notice small regional differentiation. The smallest number of service towns occur in the Wielkopolskie and Kujawsko-Pomorskie voivodeships (*administrative regions of the 1<sup>st</sup> order*), while the highest number in southern Poland (with the exception of the Śląskie voivodeship, where a lot of towns have industrial and service-industrial character) and in northern Poland (Fig. 4). On this territories the service function is connected with their health resort-recreation character. Besides all of the towns with more than 200 thousand inhabitants have outstandingly service or service-industrial character. However there is no strong spatial differentiation in the functional types of towns, what testifies about the balanced development dynamics of all of the regions in Poland. Of course in small towns the service functions are represented by basic (tertiary) services, while in the big cities besides the common basic services of higher order (quaternary and quinary) also occur. This question, although extraordinary interesting, will be omitted here, because it exceeds the frames of this elaboration.

It comes from the study carried out that in the analysed period 1984-2000 there were significant changes in the employment structure and the functional types of towns in Poland. They are reflections of the economic development and distinct structural and modernisation transformations what favour the growth of the service sector and its qualitative transformation. It also reflects, as this study showed out, in the increasing share of towns with service and service-industrial functions what made in 2000 39.9% and 28.7% of the total number of towns in Poland, respectively (Fig. 5).

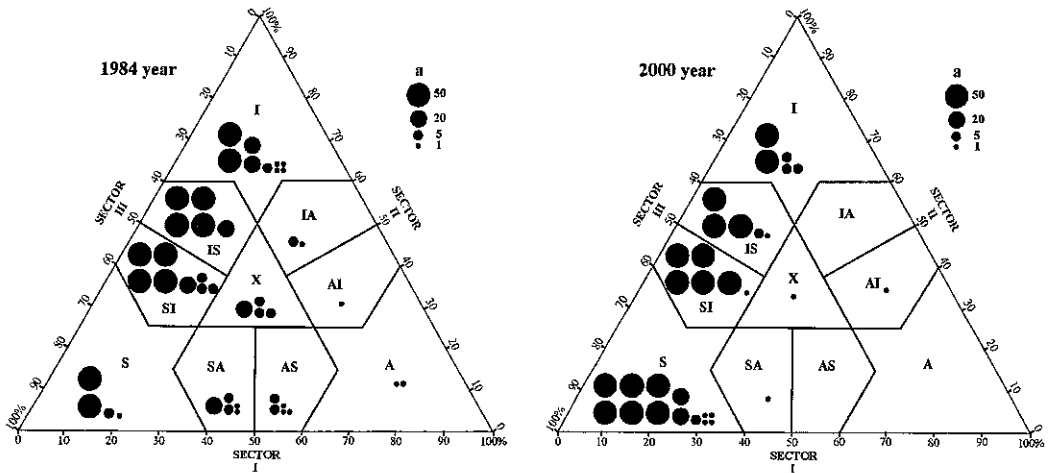


Figure 5. Changes of towns functions in Poland in the years 1984 and 2000

Notes: a = Number of towns; b = Types of towns: S - service; SI - service-industrial; IS - industrial-service; SA - service-agrarian; AS - agrarian-service; A - agrarian; AI - agrarian-industrial; IA - industrial-agrarian; I - industrial; X - no dominant type

## CONCLUSIONS

Summarising, we should notice that the system transformation accelerated the process of changes in the employment structure in towns. In towns, until that time connected with productive activity a change occurred in the direction of the service sector development. The growing significance of this sector undoubtedly is connected with the increasing demand for different kind of services, from meeting the basic needs to specific services (banks, finance, science, informatics, etc.).

So we can say that the urbanisation in Poland enters into a new development and modernisation phase. Until the end of the 80ties years of the 20th century the urbanisation process had industrial character (early urbanisation phase) where people left professions connected with the agriculture on a mass scale and began to work in the industry and building (it means from the primary I sector to the secondary II sector). This is connected of course with vehement migrations from the country to towns. In the last decade of the 20th century and at present the next phase of the urbanisation can be observed what is characterised by quick growth of employment in services (sector II – tertial activity, sector IV – quaternary activity, sector V – quinary activity) together with further distinct employment decrease in the I and II sectors.

As the development level of the region rises the share of the labour force employed in the first sector continuously decreases. The percentage of employed in the second sector grows until the end of the industrialisation process, then begins to fall. The share of the service sector, common as well as higher order, continuously increases (Domański, 1993: 30).

So we should none with satisfaction that in the last decade of the 20th century the urbanisation in Poland gathered a new qualitative character, the de-industrialisation process of towns and the growth of the significance of the service sector has begun. The tertialisation, quarterisation and quinarisation of the Polish towns is observed and it seems that it has gained a continuous increasing tendency.

## REFERENCES

- Barański, N. N. (1980) 'About the geographical-economic study of towns' [in Russian], *'Izbtanye trudy'*, pp. 204-255. Moscow, Mysl.
- Bywalec, Cz. (2003) 'The growth of service consumption, i.e. the servisation process of consumption' [in Polish], *Wiadomości Statystyczne*, Feb. 2003, Warsaw: Central Statistical Office.
- Domański, R. (1993), 'Principles of socio-economic geography' [in Polish], p. 211, Warsaw: Polish Scientific Publishers.
- Dziewoński, K.(1971) 'The economic base and functional structure of towns. Study of notions, methods and their applications' [in Polish], *Prace Geograficzne IG PAN* 87: 3-110. Warsaw: Instytut Geografii i Przestrzennego Zagospodarowania Polskiej Akademii Nauk,
- Economic and social geography of Russia [in Russian], 2001, in A.T Khryshchev (ed.), Moscow, Izd. DROFA
- Communes in Poland* [in Polish], 1997, Central Statistical Office, Warszawa



- Jerczyński, M. (1977) 'Functions and functional types of Polish towns' [in Polish], in 'Statystyczna charakterystyka miast. Funkcje dominujące', *Statystyka Polski*, nr 85: 20-53. Warsaw: Central Statistical Office
- Kosinski, L. (1958) 'The problem of functional structure of Polish towns' [in Polish], in *Przegląd Geograficzny*, tom. 30, pp.573-586.
- Kostrowicki, J. (1952) 'About the towns forming functions an functional types of towns' [in Polish], in *Przegląd Geograficzny*, tom 24, pp.7-64.
- Small Statistical Yearbook 2002* [in Polish], Warsaw: Central Statistical Office.
- Matczak, A. (1992) 'Changes in the functional structure of Polish towns in the period 1973-1983' [in Polish], in *Acta Universitatis Lodzensis, Folia Geographica 17*: 9-25
- Towns in Poland* [in Polish], 1994, Warsaw: Central Statistical Office.
- Towns in Poland* [in Polish], 1999, Warsaw: Central Statistical Office.
- Towns in numbers 1999-2000* [in Polish], Warsaw: Central Statistical Office.
- Statistical Yearbook 1989 [in Polish], Warsaw: Central Statistical Office.
- Statistical Yearbook 2000 [in Polish], Warsaw: Central Statistical Office.
- Siemiński, J. (1980) 'Structural types of Polish towns: an attempt to apply taxonomic concentration methods', Warsaw PAN IRWiR.
- Szymańska, D. (1982) 'System conception in settlement geography [in Russian], in *Vestnik Moskovskogo Gosudarstvennogo Universiteta, Seria geografia*, nr 5: 53-57.
- Szymańska, D. (1982) 'Definitions of classification and typology in the geography of towns' [in Russian], in *Vestnik Moskovskogo Gosudarstvennogo Universiteta, Seria geografia*, nr 4: 75-78
- Szymańska, D. (1984) 'Application of the closest neighbourhood method for the analysis of the town network in Poland' [in Russian], in *Trudy po geografii Tartuskovo Universiteta*, Nr 681: 69-80
- Szymańska, D. (1989) 'Problems of classification and typology of towns in Soviet geography', [in Polish], in *Studia Societatis Scientiarum Torunensis, vol. X, Nr 1*, pp. 154, sectio C (geographia et geologia), Toruń-Polonia.
- Szymańska, D. and Matczak, A. (2002) 'Urbanisation in Poland: tendencies and transformation' in: *European Urban and Regional Studies 9 (1)*, p. 39-46, Copyright SAGE Publications, London, Thousand Oaks, CA and New Delhi
- Tickell, A. (2002) 'Geography of services: progress in the geography of services III – time to move on?' in: *Progress in Human Geography 26 (6)*, pp. 791-801.
- Wejchert, K. (1947) 'Towns – professional structure – types of towns' [in Polish], in 'Studium Planu Krajowego', tom 1, Warsaw: GUPP.
- Węgleński, J. (1992) 'Urbanisation without Modernisation?' [in Polish]. Warsaw: Institute of Sociology, Warsaw University Press.
- Wróbel, A. (1978) 'Development of the Town Settlement System in Poland and the Economic Development of the Country' [in Polish]. Warsaw: *Zeszyty Zakładu Geografii Osadnictwa i Ludności Instytut Geografii Polskiej Akademii Nauk*, Nr 2, pp. 20-31.
- [www.cia.gov/publications/factbook/geos/pl.html](http://www.cia.gov/publications/factbook/geos/pl.html)

