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The functional changes of towns in the North-Eastern Poland in the years 1984-2000

Introduction

Socio-economic transformations and the introduction of free market in Poland after 1989 caused some significant changes to the economic as well as social plane. The changing economy in the transformation period caused significant modifications in the structure of employment. The liquidation of numerous work places and the introduction of new technologies had an influence among others on the decrease of the number of the employed mainly in the industry and building. So the system transformation process and the introduction of free market caused visible economic and social changes in Polish towns manifesting themselves among others in de-industrialisation and in a significant growth of the service sector role. A decreasing role of the industrial sector and advancing servicisation of Polish towns in the employment sphere, the output of the Gross Domestic Product (GDP) as a reflection of an adaptation processes, an increasing competitiveness, the 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 the 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, in the value of the Gross Domestic Product generated by the town.

The study carried out on the whole set of towns in the North-Eastern Poland (Pomorskie and Warmińsko-Mazurskie voivodships - *voivodship administrative regions of the 1st order*), totalled 83 towns in 1984 and 91 towns 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 the 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; concentrating especially on the second and third sector (see Table 1). The author's intention was to verify on which level the decreasing number of the employed in the second sector is recompensed by the increasing percentage of the employed in the third sector and what kind of tendencies are observed in the changes of the towns functions.

This research allows to conduct a comparison of the actual (2000) employment structure with the functional classification of towns carried out by M. Jerczyński (1977) for the whole set of Polish towns in 1973.

In the elaboration we concentrated on the determination of the towns' functions in a single aspect – the employment structure (not going into the question of determining 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.

Table 1. Changes of the employment structure in North-Eastern Polish towns in 1984 and 2000 (according to the division into three sectors)

Percentage of employed in sector I	1984		2000	
	a	b	a	b
< 40	83	100.0	91	100.0
40 - 60	0	0.0	0	0.0
60 - 80	0	0.0	0	0.0
> 80	0	0.0	0	0.0
total	83	100.0	91	100.0
Percentage of employed in sector II	1984		2000	
	a	b	a	b
< 40	40	48.2	40	44.0
40 - 60	35	42.2	47	51.6
60 - 80	8	9.6	4	4.4
> 80	0	0.0	0	0.0
total	83	100.0	91	100.0
Percentage of employed in sector III	1984		2000	
	a	b	a	b
< 40	30	36.1	6	6.6
40 - 60	47	56.6	51	56.0
60 - 80	6	7.2	29	31.9
> 80	0	0.0	5	5.5
total	83	100.0	91	100.0

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

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

1. Changes of the employment structure of towns in the North-Eastern Poland

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

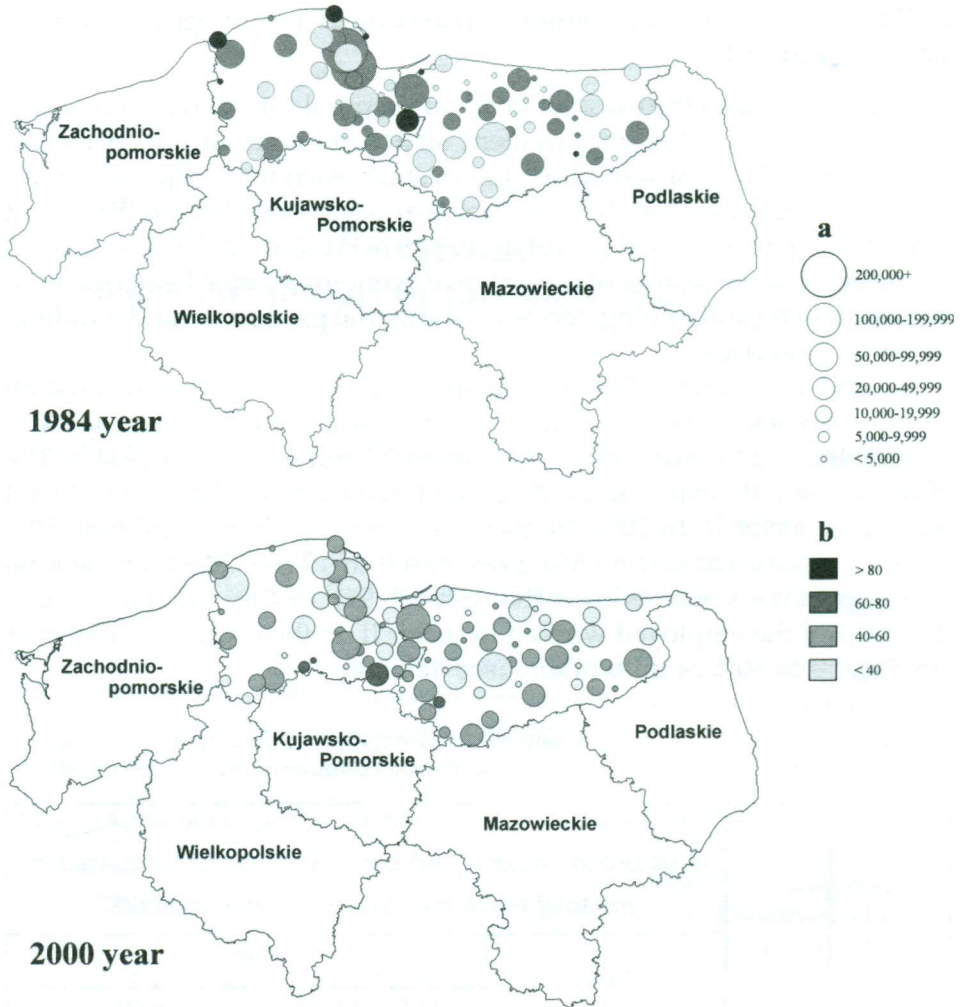
In 1984 in 8 towns (9.6%) from the total 83, more than 60% of all employed worked in sector II, in the next 12 towns (14.5%), the employed in industry and building totalled between 50 and 60%. So in 1984 in 1/4 of the towns (20 towns, i.e. 24.1% of the total) over 50% of the employed worked in sector II. In 2000 the number of towns where more than 50% worked in industry and building decreased to 19 (i.e. 20.9% of the total number of towns dealt with in the research 91). In 4 towns (4.4%), more than 60% of the employed worked in sector II, in the remaining 15 towns (16.5%), 50 to 60% of all workers (see Table 2).

Table 2. Number of towns in North-Eastern Poland according to the employment structure in sector II and sector III (> 50%) compared to the total number of towns in 1984 and 2000

Year	Sector	Number of towns in Poland according to the employment structure in sector II and sector III (> 50%) compared to the total number of towns in 1984 and 2000					
		Total		in this			
				50% - 60 %		> 60 %	
		A	b	a	b	a	b
1984	II	20	24.1	12	14.5	8	9.6
	III	23	27.7	17	20.5	6	7.2
2000	II	19	20.9	15	16.5	4	4.4
	III	67	73.6	33	36.3	34	37.4

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

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



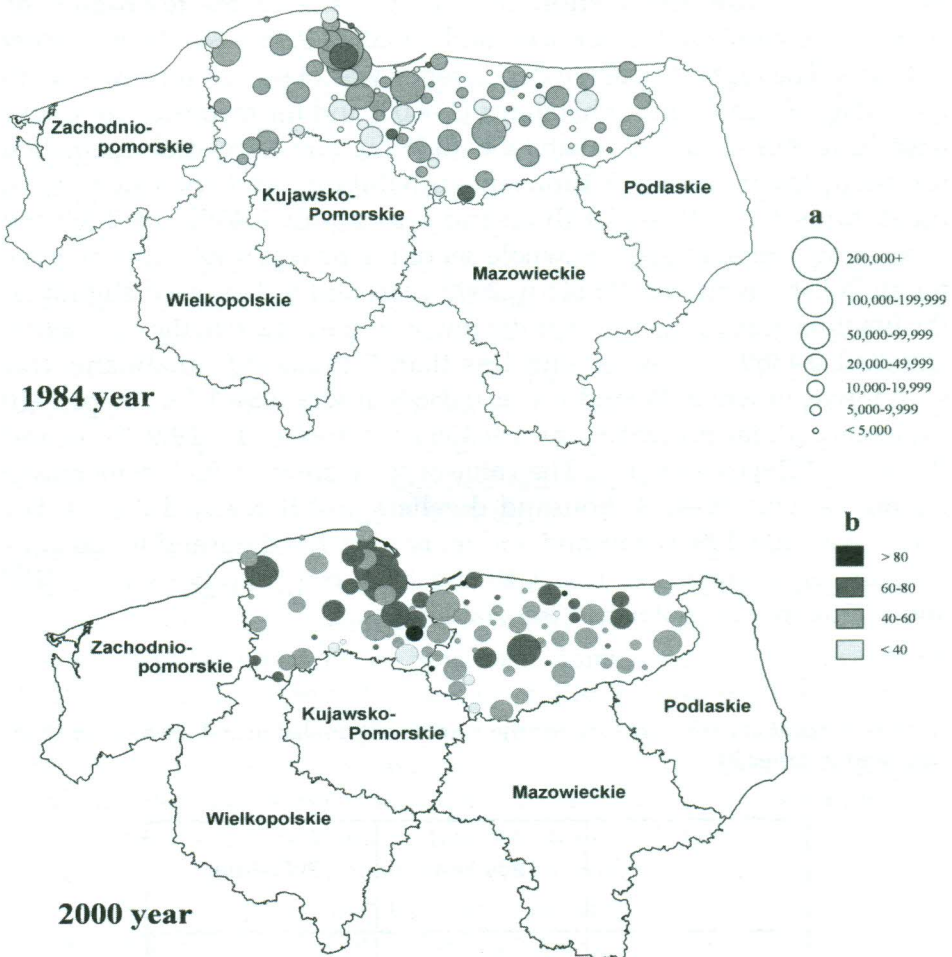
Notes: a = Size of towns; b = percentage of employed in sector II

Figure 1. North-Eastern Polish towns according to the employment structure in the second sector

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

In the analysed period 1984–2000 the percentage of towns in which $\geq 50\%$ worked in the second sector decreased by 3.2, while there were 9.6% towns in 1984 and 4.4% in 2000 where $\geq 60\%$ of the employed worked in the second sector (see Table 2 and Figure 1).

Analysing the employment structure in towns in the third sector we can state that some significant changes took place there. In 1984 there were 23 towns (27.7% of the total number) in which 50% of the employed or more worked in services, while in 2000 there were over 73.6% of such



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

Figure 2. North-Eastern Polish towns according to the employment structure in the third sector

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

cities, i.e. 67 towns. This is a significant change not only quantitatively, but also qualitatively. Comparing the number of towns where $\geq 60\%$ of workers were employed in services should underline that there were 6 (i.e. 7.2%) such towns in 1984, while in 2000 there were already 34 towns (i.e. 37.4% of all cities). This means that during 16 years the number of towns in which 60% or more of the employed worked in services grew six times (whereas in whole Poland it increased only four times) (see Figure 2).

The analysis of correlation coefficient between the percentage of the employed in services and the size category of towns shows that in 1984

there was a strong correlation between the size of the town and the share of the employed in services, and equalled 0.9878 for the whole set of towns. The highest positive dependency was observed for towns with more than 100 thousand inhabitants (1.0000) and for medium size towns from 50 to 99.9 thousand inhabitants (0.9899). The correlation coefficient for small towns under 5 thousand inhabitants and for towns with inhabitants from 10 to 20 thousand was about 0.4500. In 2000 the correlation coefficient for the whole set of towns was 0.9907 (the average for all Polish towns was 0.8141 in 2000 year) and it decreased slightly in the first three size categories. For the towns in the research, the correlation equalled 0.4369 for towns with less than 5 thousand inhabitants (for such towns in whole Poland it was 0.0868), it was 0.6461 for towns 5–10 thousand (Poland 0.2583), and 0.4363 for towns 10–19.9 thousand (Poland 0.2229) (see Table 3). The value of correlation coefficient increased for towns with 20–49.9 thousand dwellers and it reached 0.6004. For towns with 100–199.9 thousand and more than 200 thousand inhabitants the correlation amounted to 0.9010 and 1.000 respectively (while 0.5187 and 0.7162 in whole Poland) (see Table 3).

Table 3. Correlation coefficient between the number of population and the number of the employed in sector III

	1984 Year	2000 Year
< 5,000	0.448904	0.436867
5,000 – 9,999	0.814104	0.646132
10,000 – 19,999	0.486863	0.436268
20,000 – 49,999	0.512008	0.600468
50,000 – 99,999	0.989993	0.656881
100,000- 199,999	1.000000	0.901009
200,000 +	1.000000	1.000000

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

2. Types of towns in North-Eastern Poland according to functional dominance

Studies concerning the functional structure of towns are numerous and methodically differentiated. The literature concerning this problem is quite comprehensive (K. Dziewoński, 1971; M. Jerczyński 1977; J. Siemiński 1980; A. Matczak 1992 and many others) and reaches the '40s and the '50s of the 20th century (K. Wejchert, 1947; J. Kostrowicki, 1952; L. 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 the employed in the three sectors of the national economy. We have used here the functional typology of towns devised by M. Jerczyński (1977) who took into account the number of employed in towns in 1973 in the three basic sectors of the national economy and distinguished ten types of towns: agrarian (A), industrial (I), service (S), industrial–service (IS), service–industrial (SI), agrarian–industrial (AI), industrial–agrarian (IA), agrarian–service (AS); and service–agrarian towns (SA). The towns without dominating function constitute the tenth group (X) (M. Jerczyński, 1977).

Regarding the character of functional dominance in 1984, two types of towns prevailed decidedly: service–industrial and industrial–service towns. These two functional categories together included 69.9% (58 towns of the total 83 towns). In Poland in 1984 the dominating types were the following: service–industrial, industrial–service, and industrial towns. The three functional categories together included 75.5% (604 towns of the total 799 of Polish towns), while eleven years earlier in 1973 these three types were also the most frequent and included 67.4% of towns and 93.3% of the urban population that lived in them (M. Jerczyński, 1977, p. 20–53). In 1973, majority of towns in north-eastern Poland belonged to service–industrial and industrial–service types, amounting to 72.9% of all towns in the region. We realise that it is a simplification to some extent to compare the results obtained by M. Jerczyński, who defined the functional dominance of towns on the basis of the employment structure, with our results which were obtained on the basis of the structure of persons working in towns. However, such a generalisation does not hinder the perception of a universal tendency of transformations in the function 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 and 2000.

In comparison to 1984, in 2000 the number of service towns (S) increased four times, just like in the rest of Poland. In 2000 there were 34

service towns which constituted 37.4% of all towns in the region (in 1984 it was 8 towns – 9.6%; and in 1973 5 towns – 6.2%; whereas in whole Poland in 2000 there were 39.9% of service towns, in 1984 – 13.3%, and in 1973 – 7.4%). The number of service–industrial towns (SI) decreased slightly from 42.2% in 1984 to 39.6% in 2000, and also the number of industrial–service towns (IS) dropped from 27.7% (23 towns) to 17.6% (16 towns). A similar tendency in quality and quantity changes can be traced in whole Poland. Altogether, in 2000 the three categories – S, SI, and IS; referred to 79.5% (66) towns of the region in comparison to 86.5% in Poland. The number of industrial towns (I) fell down more than twice, like in the rest of the country, reaching 9 towns (11.1%) in 1973, 8 (9.6%) in 1984, and 4 (4.4%) in 2000 (for the whole country the figures were 197 towns (24.2%) in 1973, 149 (18.6%) in 1984, and 115 (13.2%) in 2000) (see Table 4 and table 5); D. Szymańska 2004: typescript). The number of towns without a dominating function (X) fell from 4 in 1973 to 0 in 2000. The most representative category of towns in the region in years 1973 and 1984 were service–industrial towns (SI) (48.2% in 1973, and 42.2% in 1984) and industrial–service towns (IS) (24.7% in 1973, and 27.7% in 1984). However, in whole Poland the most numerous both in 1973 and 1984 were industrial towns (I) and industrial–service towns (IS), with 47.3% (292 towns) and 46.2% (369 towns) respectively (D. Szymańska 2004: typescript). Similarly to the rest of the country, in 2000 the service towns (S) – 37.4%, and service–industrial towns (SI) – 39.6%, were most common in the region (for the country the figures were 39.9% and 28.7% correspondingly) (see Table 4).

So we have to underline that in the '70s and the '80s of the 20th century the second sector (industry and building) was a deciding factor for the economy in the majority of Polish towns (M. Jerczyński, 1977, p. 38). However, in North–Eastern Poland, and especially in Warmińsko–Mazurskie voivodship, the correlation was slightly less prominent.

In the post-war years until mid '80s of the 20th century the development of towns depended very strongly on the increment of employment in industry. Such dependency was natural to a great degree in a country within the industrialisation process, but the special strength of this dependency in Poland resulted also from the relatively slow development pace of services. In this situation the localisation of industry was treated on one hand as an instrument for raising the economic level of poorly developed regions, while on the other hand as the condition of development and formation of towns at the same time. Towns, where no industrial investment was made developed weakly; such a situation concerned mainly small towns (A. Wróbel, 1978, p. 24). In order to promote the development of those towns, the state devised a special

Table 4. Types of towns in North-Eastern 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											
		A	AI	AS	I	IA	IS	S	SA	SI	X	Total	
1984	a	0	0	0	8	0	23	8	2	35	7	83	
	b	0.0	0.0	0.0	9.6	0.0	27.7	9.6	2.4	42.2	8.4	100	
2000	a	0	0	0	4	0	16	34	1	36	0	91	
	b	0.0	0.0	0.0	4.4	0.0	17.6	37.4	1.1	39.6	0.0	100	
Types of towns according to size categories													
< 5,000	1984	a	0	0	0	3	0	6	4	1	1	6	21
		b	0.0	0.0	0.0	14.3	0.0	28.6	19.0	4.8	4.8	28.6	100
	2000	a	0	0	0	1	0	6	12	1	6	0	26
		b	0.0	0.0	0.0	3.8	0.0	23.1	46.2	3.8	23.1	0.0	100
5,000-9,999	1984	a	0	0	0	1	0	9	1	0	8	1	20
		b	0.0	0.0	0.0	5.0	0.0	45.0	5.0	0.0	40.0	5.0	100
	2000	a	0	0	0	2	0	5	4	0	6	0	17
		b	0.0	0.0	0.0	11.8	0.0	29.4	23.5	0.0	35.3	0.0	100
10,000-19,999	1984	a	0	0	0	2	0	4	1	1	11	0	19
		b	0.0	0.0	0.0	10.5	0.0	21.1	5.3	5.3	57.9	0.0	100
	2000	a	0	0	0	0	0	4	6	0	12	0	22
		b	0.0	0.0	0.0	0.0	0.0	18.2	27.3	0.0	54.5	0.0	100
20,000-49,999	1984	a	0	0	0	2	0	3	1	0	10	0	16
		b	0.0	0.0	0.0	12.5	0.0	18.8	6.3	0.0	62.5	0.0	100
	2000	a	0	0	0	1	0	1	7	0	9	0	18
		b	0.0	0.0	0.0	5.6	0.0	5.6	38.9	0.0	50.0	0.0	100
50,000-99,999	1984	a	0	0	0	0	0	0	1	0	2	0	3
		b	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	66.7	0.0	100
	2000	a	0	0	0	0	0	0	1	0	2	0	3
		b	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.0	66.7	0.0	100
100,000-199,999	1984	a	0	0	0	0	0	1	0	0	1	0	2
		b	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	50.0	0.0	100
	2000	a	0	0	0	0	0	0	2	0	1	0	3
		b	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	33.3	0.0	100
200,000+	1984	a	0	0	0	0	0	0	0	0	2	0	2
		b	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100
	2000	a	0	0	0	0	0	0	2	0	0	0	2
		b	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100

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).

Table 5. Types of towns in North-Eastern Poland according to the character of functional domination

Types of towns according to the character of functional domination	Sector						1973		1984		2000	
	I		II		III		a	b	a	b	a	b
	max.	min.	max.	min.	max.	min.						
	in % of the total number of employed											
Agricultural (A)	100.0	50.0	40.0	0.0	40.0	0.0	0	0.0	0	0.0	0	0.0
agro-industrial (AI)	60.0	37.5	50.0	25.0	25.0	0.0	0	0.0	0	0.0	0	0.0
agro-service (AS)	60.0	37.5	25.0	0.0	50.0	25.0	1	1.2	0	0.0	0	0.0
Industrial (I)	40.0	0.0	100.0	50.0	40.0	0.0	9	11.1	8	9.6	4	4.4
Industrial-agricultural (IA)	50.0	25.0	60.0	37.5	25.0	0.0	2	2.5	0	0.0	0	0.0
Industrial-service (IS)	25.0	0.0	60.0	37.5	50.0	25.0	20	24.7	23	27.7	16	17.6
service (S)	40.0	0.0	40.0	0.0	100.0	50.0	5	6.2	8	9.6	34	37.4
service-agricultural (SA)	50.0	25.0	25.0	0.0	60.0	37.5	1	1.2	2	2.4	1	1.1
service-industrial (SI)	25.0	0.0	50.0	25.0	60.0	37.5	39	48.2	35	42.2	36	39.6
no dominant type (X)	50.0	25.0	50.0	25.0	50.0	25.0	4	4.9	7	8.4	0	0.0
	Total						81	100.0	83	100.0	91	100.0

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

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

governmental programme. Industry as a whole or almost as a whole was included to the towns-forming functions giving basis for the existence of the town. Industrialisation was considered the main factor for accelerating 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, which manifested itself also in the number of functional types of towns with the domination of industrial towns (D. Szymańska, A. 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 basic social demands.

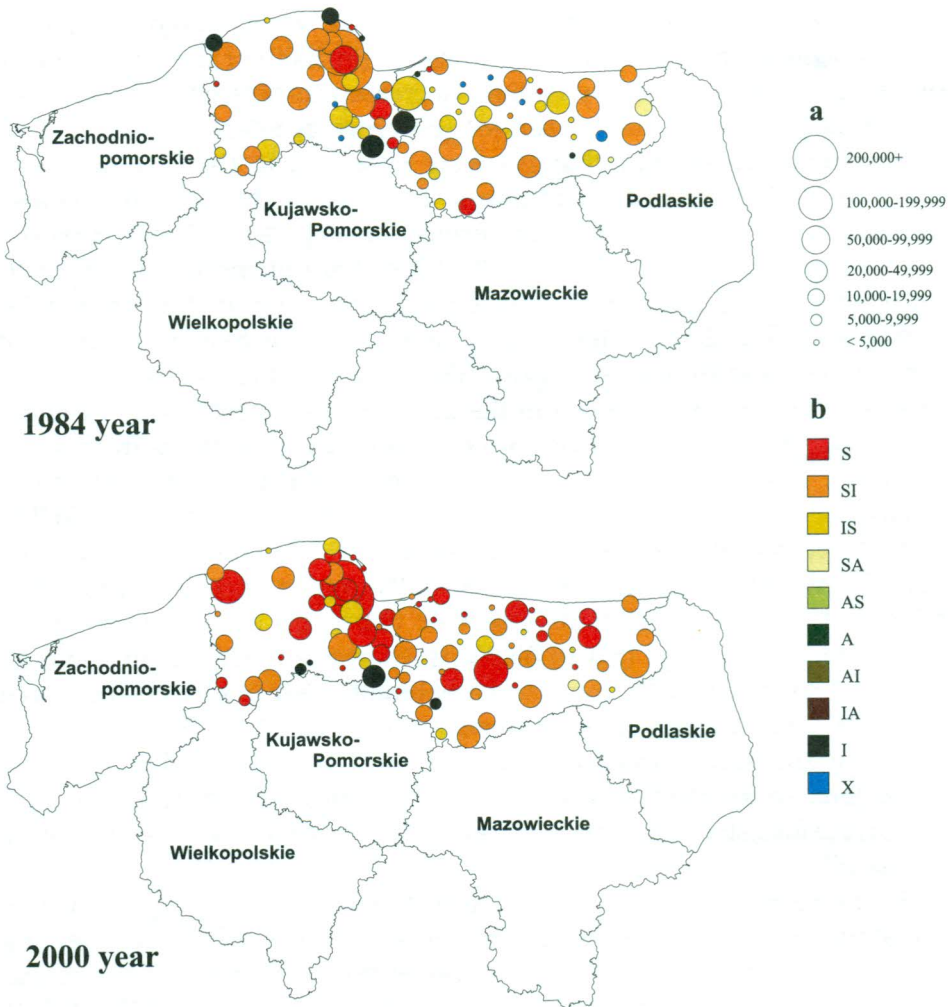
During the analysed period (1984-2000) distinct changes occurred in the functional types of towns in their particular size categories (see Table 4). Among small towns to 5 thousand inhabitants the number of industrial towns (I) fell drastically from 3 (14.3%) in 1984 to 1 (3.8%) in 2000, while the number of service towns (S) grew three times from 4 (19.0%) in 1984 to 12 (46.2%) in 2000, whereas the number of service-industrial towns (SI) increased nearly five times (see Table 4).

Among cities from 5,000 to 9,999 inhabitants, service towns (S) gained in significance from 5.0% (in 1984) to 23.5% (in 2000) of the total number of towns in this size category. A slight decrease was noticed in the service-industrial (SI) and industrial-service (IS) 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 (SI – 57.9%), industrial-service (IS – 21.1%) and industrial (I – 10.5%) towns prevailed, while in 2000 the share of industrial towns (I) dropped to 0; the number of service towns (S) grew fivefold from 5.3% (1984) to 27.3% (2000). The same tendency, i.e. decreasing number of industrial (I) and industrial-service (IS) towns and increasing number of service towns (S), was noticed in the 20–49.9 thousand towns. The share of towns with service function (S) grew more than six times in this size category. Both in 1984 and in 2000, towns with 50–99.9 thousand inhabitants were predominantly of service-industrial type (SI – 66.7%) and service type (S – 33.3%). Bigger towns, 100–199.9 thousand dwellers, varied between industrial-service (IS – 50%) and service-industrial (SI – 50%) in 1984; however, in 2000 service towns (S) amounted to 66.7% and service-industrial (SI) to 33.3% in that size category. In 1984, all towns with more than 200 thousand inhabitants were of service-industrial type (SI), while in 2000 they all turned into service type (S). We have to underline this fact especially, because according to the study conducted by M. Jerczyński (1977) in the group of big cities >100 thousand in 1973 there were industrial (I), industrial-service (IS) as well as service-industrial towns (SI).

So there is not only a significant quantitative change, but also qualitative one in connection to the servicisation of work, income, and consumption. The share of service towns (S) in the total of functional structure increased from 9.6% in 1984 to 37.4% in 2000 (in Poland 7.4% in 1984 to 39.9% in 2000) (see Table 5 and Figure 3, 4). The study carried out shows that in each size category the servicisation process proceeds and the percentage of service towns increases. In small and medium size towns the share of common, basic services grows – the third sector (trade, transport, communication, municipal and housing management). In big city centres the process of quarterisation and quinarisation takes place, i.e. the development of the fourth sector (finance, insurance, real estate turnover, marketing and advertisement) and the fifth sector (health care, education, scientific research, state administration, justice, police, army, recreation and relaxation).

It is worth mentioning here that until the end of the '80s of the 20th century services were developed very weakly in Poland and in 80% concentrated in towns only.



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

Figure 3. Types of town in North-Eastern Poland according to the character of functional domination

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

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 of the employed in the service sector. It is also worth mentioning that this is only one of the aspects of servicisation; for servicisation is a multidimensional process which develops quite intensively in the Central and Eastern European countries.

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 and employment).

Regarding the servicisation of the creation of GDP it is worth mentioning here that in the most developed countries of the world almost 70–75% of the GDP is created in the service sphere, the share of the industrial sector spans between 20 and 25%, while that of the agriculture amounts to 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 in Germany 68% (in 2001). In Poland the share of services in the GDP in 2001 was 61% (www.cia...).

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

Concerning the structure of consumption from the study carried out by Cz. Bywalec (2003) it can be concluded that the consumption structure in the Polish society shows a specific industrialisation of consumption as a dominating tendency in this domain (a phenomenon characteristic first of all for the second phase of the consumption development). Having mentioned the above tendency, the author sees the reason of the slow servicisation phenomenon in the fact that in the '90s of the 20th century the majority of Polish households renewed their durable goods, and in the fact that the accelerated industrialisation of consumption had to hamper servicisation, which comes as a rule after the industrialisation phase as the following sequence.

This not so fast pace of servicisation of consumption in Poland in the '90s of the 20th century was also (besides the reasons given so far) essentially determined by the differentiated price dynamics of consumer goods. In the years 1990–2000 the prices of services rose most quickly (2.5 times quicker than prices of food and 2 times quicker than prices of industrial goods) (Cz. Bywalec, 2003, p. 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 of the consumption. The value of consumption exceeded

40% of the global consumption value in Poland. The slow servicisation rate of consumption in Polish households during the last decade of the 20th century was caused first of all by the high increase in prices (Cz. Bywalec, 2003, p. 7).

The third dimension of servicisation manifests itself in the growing number of workers employed in the service sector. In countries representing medium level of development 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%.

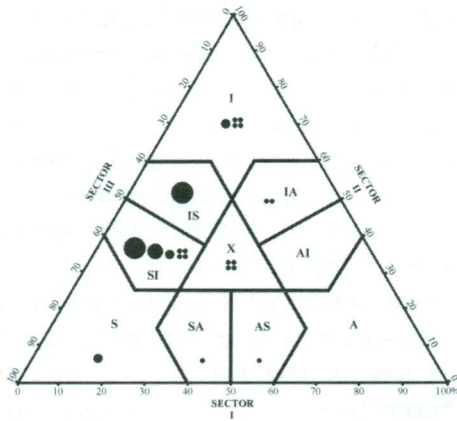
In Poland in 1987 35% were employed in services (Yearbook ..., 1989), while in 1995 – 42.2%. Estimated 27.7% of those employed in services worked in the first sector (agriculture, forestry, fishing and mining), and 30.1% in the second sector (industrial production and building). In 1998, 45.4% of the employed worked in services (sector I – 28.4%, sector II – 26.1%), Yearbook..., 2000), and in 2001 it was already 46% (sector I – 28.7%, and 25.3% worked in sector II) (Small..., 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 do not notice the strong spatial differentiation in the functional types of towns, which proves the balanced development dynamics of all Polish regions. 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 issue, although extraordinary interesting, will be omitted here, because it exceeds the frames of this paper.

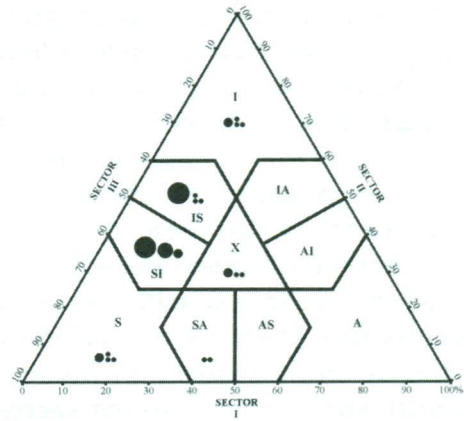
It can be concluded on the basis of the study carried out that in the analysed period 1984–2000 there were significant changes in the employment structure and in the functional types of towns in Poland. The changes reflect the economic development and distinct structural and modernisation transformations that favour the growth of the service sector and its qualitative transformation. It can also be said, as this study showed, that there is an increasing share of towns with service (S) and service–industrial (SI) functions (in 2000 37.4% and 39.6% respectively of the total number of towns in North–Eastern Poland; for the whole country the percentage in 2000 was 39.9% and 28.7% correspondingly) (see Figure 4 and Table 4).

Conclusion

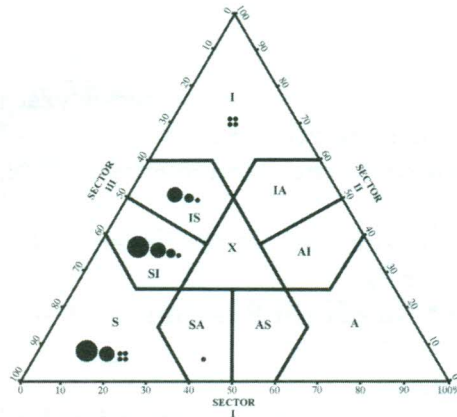
Summarising we should notice that the system transformation accelerated the process of changes in the employment structure in towns. Until that time, connected with productive activity, a change occurred in the



1973 year



1984 year



2000 year



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

Figure 4. Changes of towns functions in North-Eastern Poland in the years 1973, 1984 and 2000

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

direction of the development of service sector in towns. The growing significance of this sector is undoubtedly connected with the increasing demand for different kinds of services, from meeting the basic needs to specific services (banks, finances, science, computer sciences, etc.).

So we can say that the urbanisation in Poland enters a new development and modernisation phase. Until the end of the '80s of the 20th century the urbanisation process had an industrial character (early urbanisation phase) where on a mass scale people left professions

connected with the agriculture and began to work in the industry and building (it means from sector I to sector II). This is connected of course with vehement migrations from the countryside to towns. In the last decade of the 20th century and at present, the next phase of the urbanisation can be observed, and it is characterised by a quick growth of the employment in services (sector II – tertial activity, sector IV – quaternary activity, sector V – quinary activity) together with further noticeable employment decrease in sectors I and II.

So we should note 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 have begun. The tertialisation, quarterisation and quinarisation of the Polish towns can be observed and it seems that it has gained a continuously increasing tendency.

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