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SOCIAL, DEMOGRAPHIC AND SETTLEMENT TRANSFORMATIONS IN THE COASTAL AGGLOMERATIONS

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Abstract

Deep and multi-level economic transformations that occurred in the cities and rural areas caused profound changes in the demographic structures. The problems connected with the issue of the demographic transformations in the cities, especially those big ones, such as agglomerations or metropolises, have remained a subject of numerous geographic, demographic or sociologic studies in the post-war period. It was a result of a high concentration of population in the analyzed units, their economic position and the role they played in the settlement network of a country. The main purpose of the present paper is to define the general mechanisms of social, demographic and settlement transformations in the coastal agglomerations, being developed and influenced by various factors influencing development patterns of their inner zones. The author analyzed the changes of demographic and social structures recorded between 1988 and 2006 and accommodation resources. Analyzing the changes of population patterns by their inner spatial structure, the author discovered an increasing number of inhabitants recorded in each zone, however generally more dynamic development patterns characterized the urbanized zones (Fig. 1). The author also recorded considerable changes of accommodation resources increase concerning their general and ownership structure during the analyzed period (1988-2006). Estimation of demographic transformation factors including concepts of natural increase and migration rate is considered an essential element in conducting the research on population dynamics (Fig. 3 and Fig. 4). The observed tendencies of population's structures were also recorded in economic groups (population in pre-production, production and post-production age). Generally the author observes a significant increase of people in production and post-production age. The number of children and teenagers under 18 has considerably decreased – pre-production group (Fig. 5).

Key words: Coastal agglomerations, demographic structure, internal structures, concentration, de-concentration

INTRODUCTION

Previous century might be called an epoch of urbanization. Demographic estimations show, that the number of people living in the cities increased three times in the 20th century, and it reached a level of 50% of total population. By the end of the 20th

century the contemporary world reached in a fast pace not only a stage of an urban form of human environment as a dominant pattern of life, but also achieved a stage of intensive transformations (spontaneous and planned ones) of environment's forms and functions. The transformations have been stimulated by current technological, economic and social factors and additionally by numerous negative effects of previous population and industry concentration. Also in Poland the described period remains a specific initiation and introduction of new economic and social development processes in different politic conditions. Over ten years period of various transformations that occurred in social and political sphere reflects in multidimensional changes of the urban structures.

Qualitative and dimensional development processes are tightly connected with their increasing importance in social and economic life. Moreover, it is believed that the development of cities determines and will determine future economic, social and cultural development of the world (Parysek 2005). The cities are considered institutions (organizations), that generate prosperity, but also as sources of various threats and dangers. It seems a quite reasonable description since the cities have always been regarded as sources of progress and civilization and a place with a noticeable social stratification in a sphere of income, living conditions and spread of the social pathologies (Jałowicki 2000), deteriorating personal security and property security.

Deep and multidimensional economic transformations, that occurred in the urban and rural areas caused significant mutations in the demographic changes. In the past the cities offered jobs and accommodation provided by the factories for the new workers. Nowadays the economy faces unemployment and the cities do not attract the newcomers as they used to. Another barrier limiting an inflow of people, especially the young ones, are high prices of apartments and opening of new labor markets in the European Union countries, that became the destination of young, well educated and qualified, mobile people from urban and rural areas. The process of decreasing number of population has been observed in the biggest cities of Poland, including those located in the zones of urban agglomerations. Some influx of migrants and higher rates of natural increase have been recorded in the zones being in a process of urbanization (suburb districts of big cities), where well-off people can afford building a house and people with modest income can afford renting an apartment at a reasonable price and lower the cost of accommodation.

The principal purpose of the conducted research is to present the general mechanisms of social, economic and settlement changes in the coastal agglomerations, being developed and influenced by various factors influencing development patterns of their inner zones. The author analyzed the changes of demographic and social structures recorded between 1988 and 2006 as well as accommodation resources. The author also estimated an inner formation of agglomeration structures and problems connected with the issue of their development and general performance.

The problems connected with the issue of demographic transformations in the cities, especially the big ones such as agglomerations or metropolises, remained a subject of numerous demographic and sociologic studies in the post-war period. The studies include the works by: K. Dziewoński (1973), P. Eberhardt (1984), W. Gaworecki (1976), Z. Gontarski (1980), A. Jelonek (1988), A. Jędraszko, G. Goliaszewska

Table 1
Development of population in agglomerations of Gdańsk and Szczecin between 1960-2006

Specification	Population					Dynamics	
	1960	1970	1980	1990	2006	1960=100	1990=100
Agglomeration of Gdańsk							
a) total	648 883	820 230	1 004 464	1 063 104	1 105 000	170.29	103.94
b) cities	584 084	743 490	902 324	949 067	959 013	164.19	101.05
including:							
Gdańsk	295 707	376 071	456 707	464 649	456 658	154.43	98.28
Gdwinia	152 625	194 577	236 432	250 936	251 844	165.01	100.36
Sopot	43 714	47 398	51 290	47 195	39 624	90.64	83.96
c) rural areas	64 799	76 740	102 140	114 037	134 961	208.28	118.35
d) agglomeration's zones:							
– crucial	572 677	728 776	885 569	926 190	922 758	161.13	99.63
– urbanized	11 407	14 714	16 755	22 877	29 938	262.45	130.87
– being urbanized	64 799	76 740	102 140	114 037	152 304	235.04	133.56
Agglomeration of Szczecin							
a) total	417 579	531 678	649 334	707 702	721 573	172.80	101.96
b) cities	361 433	466 156	565 426	622 542	622 084	172.12	99.93
including:							
Szczecin	271 133	340 275	388 322	412 058	409 068	150.87	99.27
c) rural areas	56 146	65 522	83 908	85 160	99 489	177.20	116.83
d) agglomeration's zones:							
– crucial	350 459	452 442	542 008	590 699	587 296	167.58	99.42
– urbanized	22 689	32 296	47 648	54 790	56 623	249.56	103.35
– being urbanized	44 431	47 970	61 018	63 213	77 654	174.77	122.84

Source: Tablice wynikowe...; Ludność i zasoby...; Opracowania statystyczne...; Materiały i opracowania...; Charakterystyka zmian...; Rocznik statystyczny woj. pomorskiego...; Rocznik statystyczny woj. zachodniopomorskiego...; Bank Danych...; Author's calculations.

(1977), R. Karłowicz (1978), P. Korcelli (1976), W. Maik (1989), S. Liszewski (1978, 2002), J. Rajman (1969), E. Rydz (1994, 1994a) and others. The subject of the studies resulted from high concentration of population in those settlement units, their economic position and the role they played in the settlement network of a country.

The urban agglomerations, that are considered the results of territorial expansion of functions performed by cities constitute (or used to constitute) an economic region characterized by big significance for the economy. Therefore they are considered a settlement structure satisfying the basic needs such as work, service and accommodation, designated by threefold sort of spatial patterns: place of residence, place of work and place of service. They also perform appropriately strongly differentiated egzogenic functions. The urban agglomerations in Poland, especially those with the biggest urban centers (Warszawa, Łódź, Kraków, Trójmiasto, Wrocław, Poznań, and also Szczecin) might become potential metropolis in a settlement structure of the country in a close future.

There is a crucial or central area and urbanized areas (outskirts) in a functional and spatial structure of agglomeration or metropolis. The criteria distinguishing a crucial area (concerns agglomerations) include density of population and number of people performing work not connected with agriculture (Leszczycki et al. 1971, Rajman 1969, 1989, 1997).

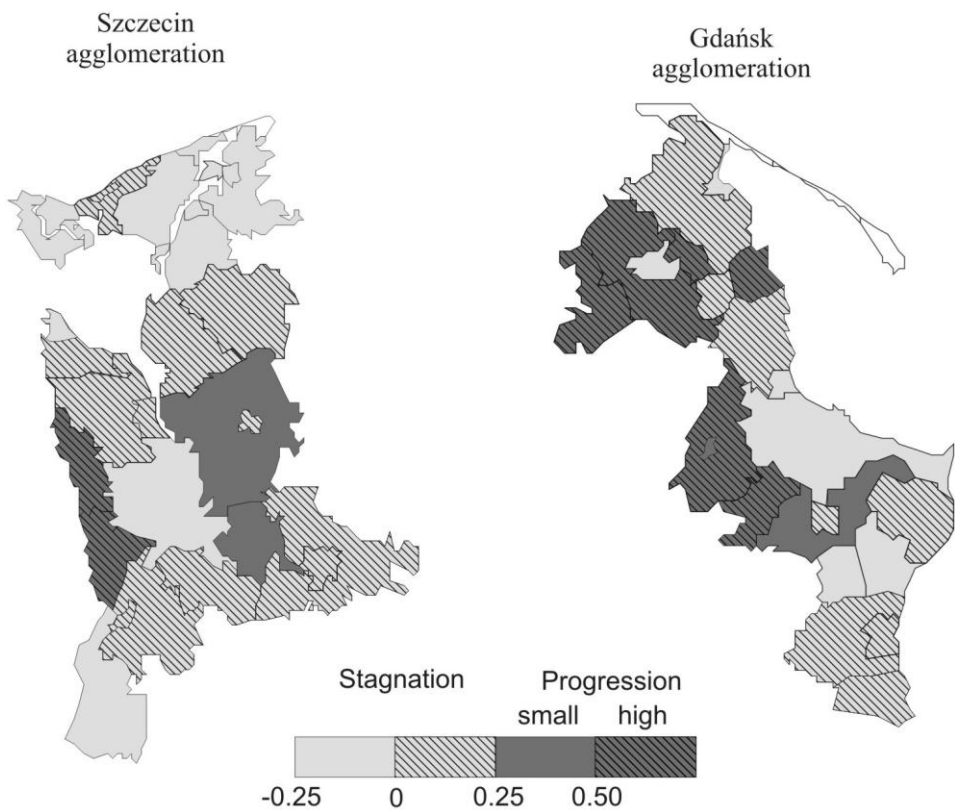
Current research on big cities, considering agglomerations in the past and metropolises at the present time, shows a tendency towards fast development processes of agglomerations' crucial zones and their external belts, in contradiction to (such as recorded patterns between 1960 and 1980) main centers of agglomeration's crucial zone, e.g. Gdańsk, Gdynia, Szczecin (Tab. 1). In my opinion the difference between an urbanized zone separated in the past and open areas slowly blurs. Taking into consideration a constant occurrence of population's density reduction between the external zones of agglomerations (a zone being urbanized and open areas) the author of the present paper uses a clear concept of "a zone being urbanized".

TENDENCIES OF POPULATION TRANSFORMATIONS IN THE COASTAL AGGLOMERATIONS BETWEEN 1960 AND 2006

The contemporary urban districts' network located in the region of Pomerania is a result of overlapping various historical factors (existing network of location cities), economic and political transformations and demographic processes. A historical factor resulted with generating the basic foundations of present urban network, while the remaining factors penetrating each other, influence a pace of the urban development processes and various forms of urban life connected with them.

However the most important element of urban networks' transformations in the region of Pomerania was establishing two coastal urban agglomerations. An agglomeration of Gdańsk located in the Wisła River mouth and agglomeration of Szczecin located in the Odra River mouth area. Both agglomerations constitute the core of a settlement network and remain the main links of development in the northern part of the country. The spatial structure of agglomeration of Gdańsk and agglomeration

of Szczecin distinctly refer to physiographic environment. An agglomeration of Gdańsk has been developed under influence of a complex structure of physical and geographic conditions. They influenced the urbanized belt, covering an area of over 70 km (Wejherowo-Tczew). We can assume that a physiographic structure influenced the agglomeration's characteristic line shape, based on transportation routes. A characteristic feature of an agglomeration of Szczecin is the fact it includes water reservoirs with Zalew Szczeciński, Dąbie Lake and the lakes of the Lower Odra River. The present paper shows the demographic transformations based on population numbers in particular zones of the coastal agglomerations recorded between 1960 and 2006 according to administrative division from 1983. (Aglomeracje miejskie... 1983).



* Dynamics for the city and community of Dziwnów calculated together, because Dziwnów was granted the city rights on 1st of January 2004. Dynamics for the city and community of Żukowo calculated with reference to 1989 records, because Żukowo was granted the city rights in 1989.

Fig. 1. Tendencies of demographic changes in Gdańsk and Szczecin agglomerations between 1988-2006

Source: see table 1. The author's calculations

Development of population in the described forty-six-year period lead to concentration of 1 826 600 people in the area of the coastal agglomeration. It means that an area of 4 094 km² occupied by agglomerations of Gdańsk and Szczecin concentrated about 47.0% of general population of the coastal regions. Total growth of urban populations of Gdańsk and Szczecin agglomerations between 1960 and 2006 was 760 100 people. It was 60.1% of total growth of urban population in the Pomerania region. The highest rate of population growth in the agglomerations of Gdańsk and Szczecin was recorded between 1960 and 1970 (Tab. 1).

Analyzing the changes of population patterns by their inner spatial structure, the author noticed an increasing number of inhabitants recorded in each zone, however generally more dynamic development patterns were recorded between 1960 and 2006 and characterized the urbanized zones (an increase with 162.4% in Gdańsk agglomeration and 149.6% in Szczecin agglomeration). The records show a quite significant growth of a total number of population of rural districts located in the region of Gdańsk agglomeration between 1970 and 1980 and in recent 18 years (1988-2006). The described tendency was recorded in the communities of Kosakowo (an increase with 91.4%), Kolbudy (67.3%), Wejherowo (with 60.4%), Luzino (51.1%)

Table 2

Average annual pace of population increase in agglomerations of Gdańsk and Szczecin and their inner zones between 1960-2006 according to their area in 2006 (in %)

Specification	Periods of increase				
	1960-2006	1960-1970	1970-1980	1980-1990	1990-2006
Poland – total	0.61	0.96	0.94	0.69	-0.01
cities – total	1.36	2.00	2.27	1.28	-0.07
Agglomeration of Gdańsk	1.53	2.64	2.25	0.58	0.25
including:					
cities – total	1.40	2.73	2.14	0.52	0.07
villages – total	2.35	1.84	3.31	1.16	1.15
crucial zone	1.33	2.73	2.15	0.46	-0.02
urbanized zone	3.53	2.90	1.39	3.65	1.93
zone in the urbanization process	3.15	1.84	3.31	1.16	2.10
Agglomeration of Szczecin	2.94	2.73	2.21	0.90	1.06
including:					
cities – total	1.61	2.90	2.13	1.01	0.07
villages – total	5.50	1.67	2.81	0.15	8.30
crucial zone	1.51	2.91	1.98	0.90	0.04
urbanized zone	8.60	4.23	4.75	1.50	6.57
zone in the urbanization process	3.73	0.80	2.72	0.36	5.68

Source: see table 1. The author's calculations

and Pruszcz Gdański (with 45.8%). All communities, excluding the communities of Pszczółki and Suchy Dąb, located in a zone, in the urbanizing processes were characterized by growth of population number (Fig. 1).

The highest growth of an urban population in Szczecin agglomeration was recorded between 1970 and 1980 and between 1960 and 1970, and it reached respectively 2.81% and 1.67%. However the highest real increase of population recorded between 1988 and 2006 was observed in the communities located in the vicinity of the borders: Dobra Szczecińska (an increase with 148.3%), Kołbaskowo (with 74.2%), and subsequently in a community of Kobylanka (with 32.7%) and a community of Goleniów (with 26.4%). The results of the research conducted in the communities of Kosakowo, Kolbudy Górne and Żukowo located in Gdańsk agglomeration and the communities of Międzyzdroje, Dziwnów and Stepnica located in Szczecin agglomeration show, that a part of a well-off social group, that managed to collect some financial capital is interested in investing the money in the real-estate located in the mentioned districts (Tab. 2).

A level of advancement of population concentration in the agglomerations is expressed by a growth of population's density. In particular inner zones of Gdańsk and Szczecin agglomerations, due to a stable spatial division, changes in density of population remain only a function of a population's real growth. Between 1960 and 2006 density of population recorded in the described agglomerations increased successively. The growth was characterized by a regular pace of increase (Tab. 3). However its pace was quite intensive only in the beginning of the analyzed period.

Table 3
Density of population in agglomeration of Gdańsk and Szczecin between 1960-2006
(in persons/km²)

Specification	Density of population				
	1960	1970	1980	1990	2006
Agglomeration of Gdańsk					
a) total	317.3	401.1	491.2	519.8	540.9
b) zones of agglomeration:					
– crucial	1 128.5	1 427.4	1 745.4	1 826.8	1 802.3
– urbanized	373.1	481.0	546.0	762.6	855.4
– being urbanized	43.1	51.0	67.8	75.7	101.8
Agglomeration of Szczecin					
a) total	106.5	135.6	166.5	180.5	194.0
b) zones of agglomeration:					
– crucial	494.0	638.0	763.7	833.1	958.1
– urbanized	28.1	40.0	59.0	67.8	69.8
– being urbanized	18.4	19.9	25.4	26.3	33.8

Source: see table 1. The author's calculations.

It was caused by a considerably high number of people arriving to that area. Between 1990 and 2006 density of population in Gdańsk agglomeration increased with 21.1 people/km² and it was similar to the region's average.

The highest absolute increase of density with 92.8 persons/km² from among the inner zones, was recorded between 1990 and 2006 in the urbanized zone. Development of constructing industry, including constructing industry in Reda, is considered a strong stimulator of the mentioned transformations. A considerable increase of population's density was observed in the external of Gdańsk agglomeration. The most intensive increase was recorded in the districts situated along the main road and railway transportation routes, that connect the districts with the central locations of Gdańsk agglomeration (e.g. the communities of Luzino, Żukowo, Wejherowo, Pszczółki, Kolbudy Górne). As for Szczecin agglomeration the process of population's density increasing was the most intensive in the crucial zone and the zones being urbanized.

DIFFERENTIATION OF RESOURCES AND CONDITIONS OF ACCOMMODATION IN THE INNER ZONES OF THE COASTAL AGGLOMERATIONS AND THEIR OWNERSHIP STRUCTURE

Accommodation resources remain one of the most important elements of any agglomeration's development, both as one of the determinants of conditions and level of living and due to the fact that they constitute the basic tissue of a spatial structure of an agglomeration. Various elements of a structural type might be distinguished from the general factors influencing accommodation situation. The group includes elements such as: development of constructing industry, volume of resources and finally ownership forms.

A number of apartments built in 2006 seem to confirm the mentioned above fact (Fig. 2). The most favorable situation concerning accommodation facilities is observed in the communities of, situated in the close vicinity of the border, Dobra Szczecińska and Kolbaskowo and in the zone situated in the seaside districts: a community of Dziwnów and Świnoujście located in Szczecin agglomeration. As for Gdańsk agglomeration the most favorable situation is recorded in a community of Kosakowo and the cities of: Pruszcz Gdański, Reda and Wejherowo. This situation contributes not only to changes of physiognomy of the settlement structure units, but also influences an economic character of a district and a demographic increase.

One of the important elements of accommodation resources' estimation is to define their ownership status. The author divided the accommodation facilities available on the market into six basic ownership forms: communal apartments, institutions and factories apartments, Social Constructing Association (TBS) apartments, co-operative apartments, natural person's apartment and other forms of ownership¹.

¹ Information about ownership forms of accommodation resources come from Regional Data Bank, GUS, www.stat.gov.pl 2007

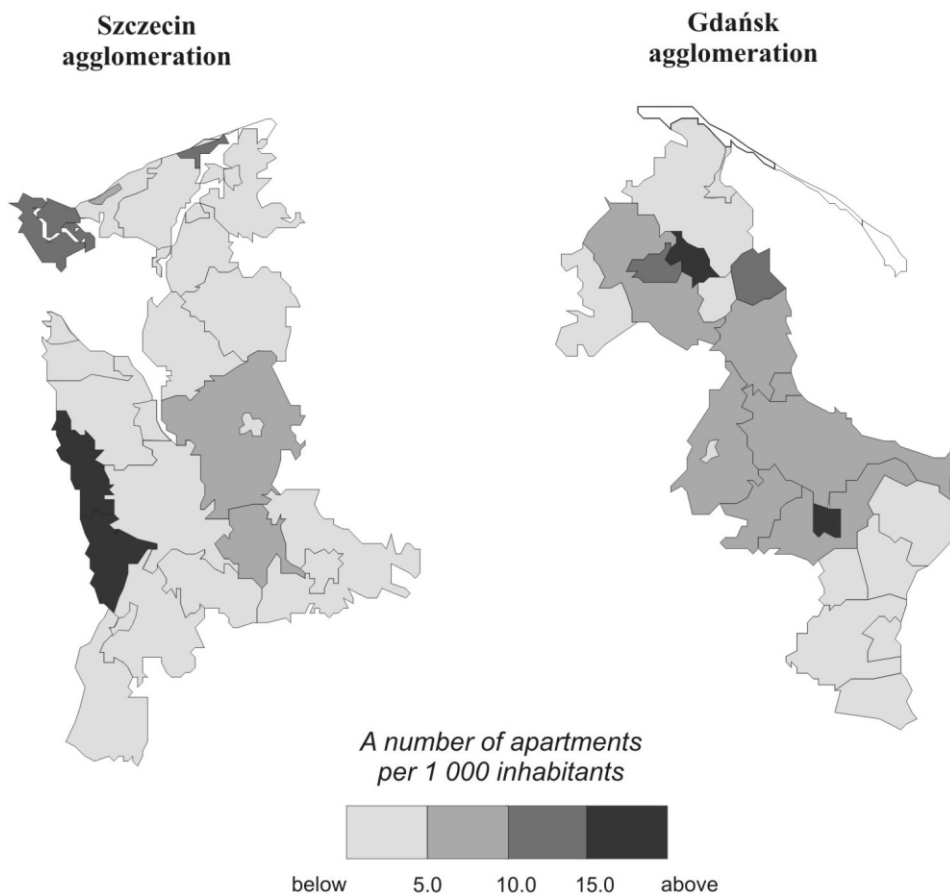


Fig. 2. Development of construction industry in the communities of Gdańsk and Szczecin agglomerations in 2006

Source: see table 1. The author's calculations

Ownership of natural persons (42.9%) constituted the highest number of accommodation resources in Gdańsk agglomeration in 2006. The next place was taken by co-operative apartments (37.5%). However the latter form of ownership is a process of legal transformations. Different character of ownership forms was observed in the inner zones of agglomerations. As for the crucial zone of Gdańsk agglomeration the majority is constituted by co-operative apartments (41.65 of general resources), and then the resources owned by the natural persons (37.3%). The latter form of ownership (natural persons' apartments) dominates in general resources both in the urbanized zone (54.1%) and the one being in the process of urbanization (89.9%). The presented situation confirms the former conclusions concerning development of constructing industry in the external zones of agglomerations.

Similar situation was recorded in Szczecin agglomeration in 2006. The co-operative apartments constituted 38.6% of general resources, while the real-estate owned by

the natural persons constituted 39.45. In the districts located in the area of the inner zones the ownership structure was more differentiated. The co-operative apartments (42.7%) and the natural persons' apartments (33.5%) dominated in the crucial zone. However the apartments owned by the natural persons (54.3%) constituted over one half of accommodation resources located in the urbanized zone and 81.1% in the open areas. Since 1990 the zone in the process of urbanization both in Gdańsk agglomeration and in Szczecin agglomeration have remained an area of intensive development of constructing industry.

THE TENDENCIES OF TRANSFORMATIONS IN DEMOGRAPHIC STRUCTURES

Evaluation of demographic transformations' factors, that include population growth and migration ratio, is considered one of the most significant issues in a process of research conducted on population dynamics. The author of the present paper used

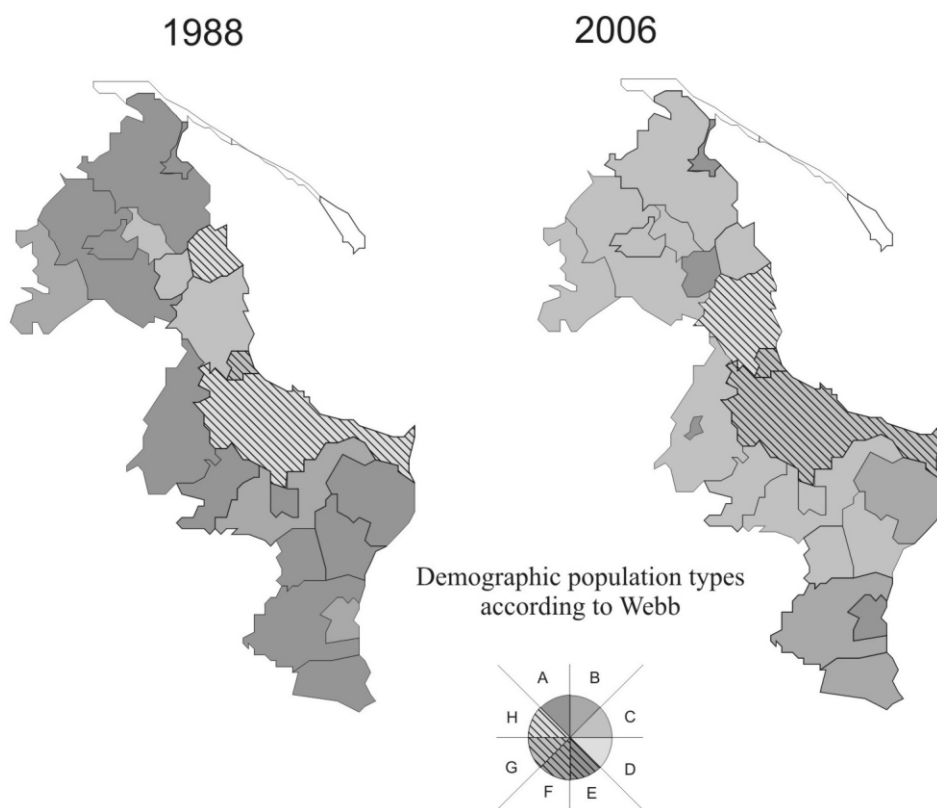


Fig. 3. Demographic types of population according to Webb in Gdańsk agglomeration in 1988 and 2006

Source: see table 1. The author's calculations

a typology by J.W. Webb (1963) in order to define relations between the mentioned components of a real increase of population.

In 1988 the settlement units that remain territorial components of Gdańsk agglomeration represented 5 from among 8 types of a demographic development structures (Fig. 3). The units characterized by a positive real increase, except for Gdańsk and a community of Kosakowo (type H) and Sopot (type G), predominated in the crucial zone of the agglomeration. The urbanized zone was represented by Puck (type A), where a population growth influenced significantly growth of a population number, and Reda (type C), an urban unit characterized by high number of immigrants. The research conducted by J. Parysek (2005) shows, that the city of Reda performed accommodation functions as early as in the eighties and used to be considered “a bedroom” of Gdańsk agglomeration. A real increase in other zones of the agglomeration was determined by high population growth, that reached 21.3‰ in a community of Luzino, 20.4‰ in a community of Wejherowo and 16.6‰ in a community of Cedry Wielkie with a country average 5.7‰ at that time. It is a very specific situation since the analyzed area is one of the elements of Kaszuby, a cultural region, where a traditional family always played an important role in a life of people.

Analyzing the changes, that occurred in a sphere of components influencing population's development processes after a period of previous 18 years, in 2006 it is important to notice considerable typological shifts from type A to type C and from type A to B type. A decreasing number of population and migration growth in the central zone generated depopulation processes. Different tendencies are observed in the other zones, where an increase of population number is an effect of immigration processes. Decentralization processes of the central zone cause, that the external districts of Gdańsk agglomeration are characterized by high increase of population and accommodation. The rules concerning area rent system, good accessibility to transportation facilities and, above all, higher mobility of the inhabitants generate favorable conditions to develop residential functions in the external zones.

Different tendencies concerning the changes in population were observed in the inner zones of Szczecin agglomeration (Fig. 4). In 1988 the crucial zone was characterized by a predominance of the settlement units with a positive real increase, including the central city. An increase of population number was a consequence of a population growth's predominance over a negative migration ratio (type A), or a predominance of population growth over a positive migration ratio (type B). Type C characterized by a predominance of a positive migration ratio included a city of Police – fast developing industrial center in that time, and a city of Goleniów favorably located in a close neighborhood of Szczecin by the main transportation routes.

Depopulation types were represented by the cities of Wolin and Międzyzdroje, where high migration influenced a negative real increase. In 1988 contrary to Gdańsk agglomeration, the external units of Szczecin agglomeration represented a type H with a predominance of emigration over population growth. The group was constituted by the communities situated in the districts located by the Polish-German border, where some legislation restrictions limited settlement and demographic development.

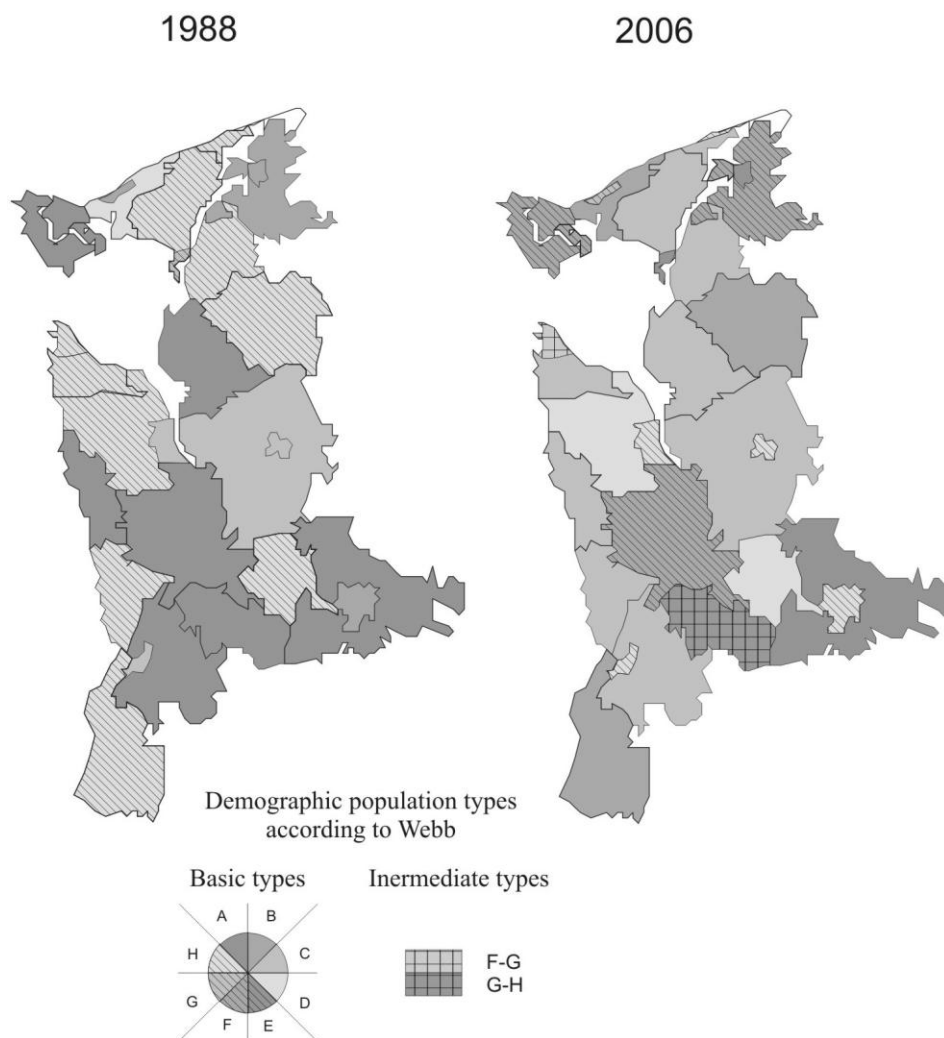


Fig. 4. Demographic types of population according to Webb in Szczecin agglomeration in 1988 and 2006

Source: see table 1. The author's calculations

In 2006 a considerable number of cities and communities located in Szczecin agglomeration changed their typological location in comparison to the situation recorded in 1988. The cities of the crucial zone became depopulated in the effect of a migration increase and a decrease of population number. Favorable demographic trends became more evident in the zone being in a process of urbanization. As a rule they are the districts located in a close vicinity of Szczecin, generating urbanization processes. Microregions located on the border districts, according to the applied typology, achieved an immigration demographic character during the process of system transformations (Jażewicz 2006). The border was not considered a barrier in

a process of social and economic development anymore. On the contrary, its vicinity allowed to animate some economic initiatives thanks to opening of the new border crossings in Mescherin-Gryfino, Buk-Blankensee in the community of Dorba, Bobolin-Schwennenz in the community of Kołbaskowo and Widuchowa-Gartz in the community of Widuchowa.

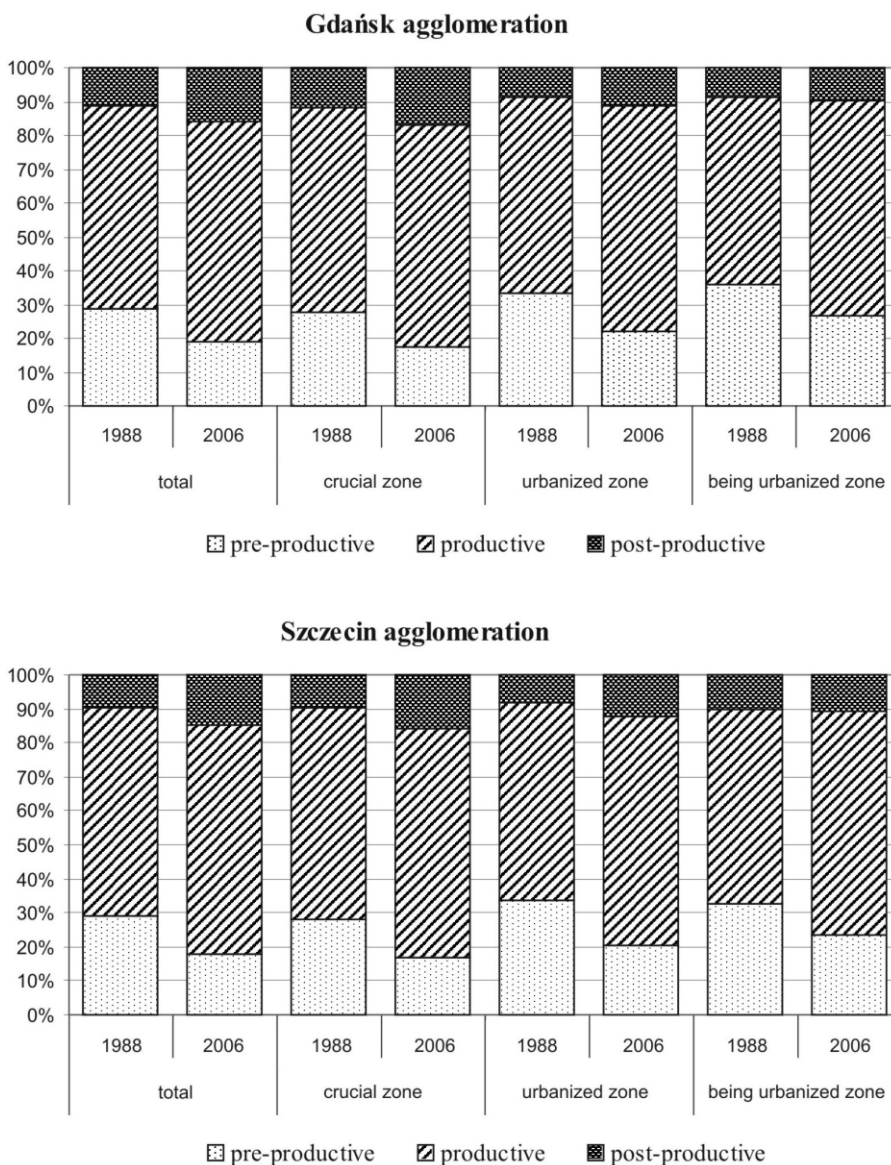


Fig. 5. Population structure according to the age economic groups in the zones of Gdańsk and Szczecin agglomerations in 1988 and 2006
 Source: see table 1. The author's calculations

The observed tendencies concerning a problem of population's ageing recorded during the analyzed eighteen-year period in the presented agglomerations confirm the percentage values of population according to economic groups. Between 1988 and 2006 a number of people in a productive age increased with 40 300 people (with 59.2%) in Szczecin agglomeration. Nowadays the percentage value of the mentioned group reached 15.9% in Gdańsk agglomeration and 15.0% in Szczecin agglomeration. The author of the present paper discovered an increase with 4.6 of the percentage points in Gdańsk agglomeration and with 5.3 in Szczecin agglomeration of this particular age group in a total number of the analyzed agglomerations' population. The increase was a result of age structure's "waving" and extending of life. The fastest paces of inner zones' population increase in a post-productive age was recorded in the crucial zones of the coastal agglomerations (Fig. 5). The mentioned above changes of the age structure should determine certain activities in a sphere of social protection, health service and construction industry since the demographic prognoses indicate that the current tendencies in demographic transformations, recorded in the analyzed eighteen-year period, will remain unchanged.

A group of population in a productive age also witnessed significant changes. Population of this economic group increased with over 91 400 people (14.4%) in Gdańsk agglomeration and with 52 600 people (12.2%) in Szczecin agglomeration. At present time a percentage value of the mentioned group reached 65.3% in Gdańsk agglomeration and 67.0% in Szczecin agglomeration. The highest increase of labor resources was recorded in the zone in a process of urbanization (with 64.8%) and urbanized zone (with 52.0%) in Gdańsk agglomeration and in the urbanized zone (with 21.7%) in the regions of Szczecin agglomeration. The results confirm former conclusions on development of business activities in the districts located in the crucial zones. The results of the research show that a large group of villages transformed, with technoproductive functions and relatively high level of urbanization, what is a result of entrepreneurship of the suburb districts. Therefore the suburb districts have a considerable potential to activate new endogeneous factors of development.

A number of children and young people under 18 considerably decreased (pre-productive group) in all inner zones of the coastal agglomerations in comparison to the mentioned above changes recorded during the analyzed eighteen-year period. In comparison to data recorded in 1988 a decrease of children and young people expressed in absolute numbers reached about 93 400 people (30.8%) in Gdańsk agglomeration and 73 500 people (36.2%) in Szczecin agglomeration. A considerably least decrease of the youngest inhabitants was recorded in the zones in urbanization processes. According to the conducted research, the most intensive ageing processes were recorded in a population of the crucial zone (the big cities), however the weakest pace of ageing processes was recorded in the external zones of agglomerations.

FINAL REMARKS

The analysis of the inner settlement demographic structures' transformations of the coastal agglomerations shows that the generated structures are a consequence of com-

plex economic and social phenomena influenced by industrialization and urbanization processes. Changes of a dynamics' increase of their inner zones reflect previous population trends, economic and construction industry policy and migrations. The mentioned processes were not monotonous, on the contrary they were characterized by dynamics' changeability. However analyzing population data one should take into consideration that both population growth and intensity of migration indicate longterm decrease tendencies, that occur in the inner zones with various intensity.

The results of the conducted research show that significant changes concerning population development were recorded in various inner zones of agglomerations during system transformation period (1989-2006). The changes concerned an increase of population in the external zones of the described agglomerations. The author of the present paper also noticed an increase of accommodation resources in the external zone. A great number of people decided to live and develop business activities in the suburb districts since the real-estate rent fees and preferential policy of the local authorities in the suburb communities lowered the cost of living and taxes significantly.

The author also observed reviving processes of former social groups in the regions located in the area of the analyzed agglomerations during previous eighteen-year period. The agglomerations witness a constant social polarization. The unemployment and fear of losing a job, especially among lower categories of the middle class, lead to a progressive complex regression of a society.

REFERENCES

- Aglomeracje miejskie. (Urban agglomerations), 1983, GUS Warszawa, (in Polish).
- Bank Danych Regionalnych. (Regional Data Bank). 2007. www.stat.gov.pl
- Charakterystyka zmian demograficzno-społecznych i warunków mieszkaniowych w latach 1978-1988, woj. gdańskie i woj. szczecińskie. (Characteristics of demographic and social changes and accomodation conditions between 1978-1988, province of Gdańsk and province of Szczecin). 1990. GUS Warszawa, (in Polish).
- Dziwowski K., 1973. W sprawie podstawowych pojęć i terminów używanych w analizie i planowaniu wielkich aglomeracji miejskich. W: Aglomeracje miejskie w Polsce. Pojęcia i terminologia. (Basic terms and concepts used in an analysis and planning of big urban agglomerations. In: Urban agglomerations in Poland. Terms and concepts). *Biul. KPZK PAN*, 79, (in Polish).
- Eberhardt P., 1984. Ocena rozwoju i funkcjonowania systemu osadniczego Polski. (Evaluation of development and functioning of a settlement system in Poland). *Czas. Geogr.*, 55, 1, 61-72 (in Polish).
- Gaworecki W., 1976. Aglomeracja gdańska. Geneza i funkcje. (Gdańsk agglomeration. Genesis and functions). Gdańsk, (in Polish).
- Gontarski Z., 1980. Obszary metropolitarne w Polsce. (Metropolitan areas in Poland). *Biuletyn KPZK PAN*, 109, (in Polish).
- Jałowicki B., 2000. Początki wytwarzania przestrzeni metropolitalnej w Polsce. W: Uwagi o warunkach i strategii rozwoju regionalnego w procesach integracji europejskiej. (The origins of metropolitan districts' generating in Poland. In: Conditions and strategy of re-

- gional development in the processes of the European Union integration). (Ed.) Z. Miłkołajewicz, Opole, (in Polish).
- Jażewicz I., 2006. Przemiany demograficzne na obszarach wiejskich na przykładzie woj. zachodniopomorskiego. W: Urbanizacja i społeczeństwo. (Demographic transformations in the rural areas of zachodniopomorskie province. In: Urbanization and society). (Ed.) B. Górz, Kraków, 252-264, (in Polish).
- Jelonek A., 1988. Obszary problemowe w zakresie zagrożeń demograficznych w Polsce. W: Problemy geografii osadnictwa i ludności w Polsce. (Problem areas in a spectrum of demographic threats in Poland. In: Problems of settlement and population geography in Poland). (Ed.) E. Biderman, Poznań, 67-78, (in Polish).
- Jędraszko A., Goliaszewska G., 1977. Aglomeracje miejskie w terytorialnym podziale kraju. (Urban agglomerations in the territorial division of the country). *Człowiek i Środ.*, 1, 1, (in Polish).
- Karłowicz R., 1978. Rozwój wielkich aglomeracji miejskich w Polsce. (Development of big urban agglomerations in Poland). PWN Warszawa-Lódź, (in Polish).
- Korcelli P., 1976. Zagadnienie teorii i planowania rozwoju aglomeracji miejskich. (Concepts of theory and development planning of urban agglomerations). *Miasto*, 3, (in Polish).
- Leszczycki S., Eberhardt P., Herman S., 1971. Aglomeracje miejsko-przemysłowe w Polsce w latach 1966-2000. W: Polska 2000. Prognozy rozwoju sieci osadniczej. (Urban and industrial agglomerations in Poland between 1966-2000. In: Poland 2000. Prognoses of settlement network development). Warszawa, part 2, 10-61, (in Polish).
- Lisowski A., 2005. Procesy centralizacji i decentralizacji w aglomeracji warszawskiej w latach 1950-2002. (Centralization and decentralization processes in Warsaw agglomeration between 1950-2002). *Pr. i Stud. Geogr.*, UW Warszawa, 35, 13-43, (in Polish).
- Liszewski S., 1978. Tereny miejskie. Podział i klasyfikacja. (Urban trends. Division and classification). *Zesz. Nauk. UŁ*, 2, 15, (in Polish).
- Liszewski S., 2002. Aglomeracja miejska – geneza. Przemiany. W: Współczesne formy osadnictwa miejskiego i ich przemiany. XV Konwersatorium Wiedzy o Mieście. (Urban agglomeration – genesis. Transformations. In: Contemporary forms of urban settlement and their transformations. 15th Seminar on knowledge about a Town.). (Ed.) I. Jażdżewska, UŁ, ŁTN, Łódź, 21-34, (in Polish).
- Ludność i zasoby mieszkaniowe w latach 1946-1974 według podziału administracyjnego z 1 czerwca 1975 r. (Population and accomodation between 1946-1974 according to administrative division from the 1st of June 1975). 1976. GUS Warszawa, (in Polish)
- Maik W., 1989. Rozwój teorii regionalnych i krajowych układów osadnictwa. (Development of regional and national settlement structures). Poznań, (in Polish).
- Materiały i opracowania statystyczne. Powierzchnia i ludność w przekroju terytorialnym. (Statistic data and studies. Area and population in territorial section). 1991. GUS Warszawa, (in Polish).
- Opracowania statystyczne. Ludność według płci, wieku, województw, miast i gmin w 1980 r. (Statistic studies. Population according to sex, age, provinces, cities and communities in 1980). 1981. GUS Warszawa, (in Polish).
- Parysek J., 2005. Miasta polskie na przełomie XX i XXI wieku. Rozwój i przekształcenia strukturalne. (Polish cities on the turn of the 20th century. Structural development and transformations). Bogucki Wyd. Nauk., UAM Poznań, (in Polish).
- Rajman J., 1969. Procesy urbanizacyjne w obrzeżu górnośląskiego okręgu przemysłowego po drugiej wojnie światowej. (Urbanization processes in the Upper Silesia industrial district after the Second World War). Kraków, (in Polish).
- Rajman J., 1989. Problemy rozwoju demograficznego aglomeracji górnośląskiej. W: Studia nad urbanizacją południowej Polski. (Problems of demographic development of Upper

- Silesia agglomeration. In: Studies on urbanization of the South Poland). (Ed.) J. Rajman, Kraków, (in Polish).
- Rajman J., 1997. Strefa podmiejska – mechanizm powstawania i przekształceń. Nowe problemy badawcze. W: Geografia. Człowiek. Gospodarka. (Suburb zone – The generating and transforming mechanisms. New scientific problems. In: Geography. Man. Economy). (Eds.) A. Jackowski, B. Domański, Kraków, 67-73 (in Polish).
- Rocznik statystyczny woj. pomorskiego. (Statistic annals of Pomorskie province). 2005. US Gdańsk, (in Polish).
- Rocznik statystyczny woj. zachodniopomorskiego. (Statistic annals of Zachodniopomorskie province). 2005. US Szczecin, (in Polish).
- Rydz E., 1994. Przeobrażenia demograficzno-osadnicze struktur wewnętrznych aglomeracji nadmorskich. (Demographic and settlement transformations of the inner structures in the coastal agglomerations). WSP Słupsk, (in Polish).
- Rydz E., 1994a. Procesy transformacji przestrzenno-funkcjonalnej szczecińskiego regionu miejskiego. W: Region miejski. Centrum a peryferia w okresie transformacji politycznej, gospodarczej i społecznej. VII Konwersatorium Wiedzy o Mieście. (Processes of spatial and functional transformations of Szczecin urban region. In: Urban region. The city versus periphery in period of politic, economic and social transformations. 7th Seminar on Knowledge About a Town). UŁ Łódź, 53-62, (in Polish).
- Rydz E., 2006. Przemiany struktur społeczno-gospodarczych w okresie transformacji systemowej na Pomorzu Środkowym. (Changes of social and economic structures in the processes of system transformations in the region of Central Pomerania). PAP, (in Polish).
- Stasiak A., 1973. Rozwój aglomeracji miejskich w Polsce. (Agglomerations' development in Poland). Warszawa, (in Polish).
- Tablice wynikowe. Ludność według płci i wieku w latach 1970-1974. (Results tables. Population according to sex and age between 1970-1974). 1975. GUS Warszawa, (in Polish).
- Webb J.W., 1963. The natural and migrational components of population changes in England and Wales 1921-1931. *Economic Geography*, 39, 130-148.

WSPÓŁCZESNE PRZEKSZTAŁCENIA SPOŁECZNO-DEMOGRAFICZNE I OSADNICZE W AGLOMERACJACH NADMORSKICH

Streszczenie

Powstanie aglomeracji miejskich jest wynikiem terytorialnego rozszerzenia funkcji zespołu miast i strefy podmiejskiej, stanowią one w pewnym sensie region ekonomiczny o istotnym, względnie trwałym domknięciu gospodarki. W funkcjonalno-przestrzennym układzie aglomeracji wyróżnia się zazwyczaj obszar węzłowy (strefę centralną) oraz strefę zurbanizowaną i strefę urbanizującą się. W niniejszym opracowaniu do analizy przemian demograficznych przyjęto stan ludności w poszczególnych strefach za lata 1960-2006 według ich granic z 1983 r. Rozwój ludności w omawianych 46 latach doprowadził do skupienia się na obszarze aglomeracji nadmorskich 1 826 600 osób. Oznacza to, że na powierzchni 4094 km² zajmowanej przez aglomeracje gdańską i szczecińską koncentrowało się około 47,0% ogólnego zaludnienia regionów nadmorskich. Rozpatrując zmiany zaludnienia przez pryzmat wewnętrznej struktury przestrzennej w poszczególnych strefach, obserwuje się wzrost liczby mieszkańców w każdej z nich, przy czym w skali ogólnej bardziej dynamiczny rozwój charakteryzował strefy zurbanizowane. Biorąc za podstawę przyrost naturalny i salda migracji poszczególne

gólnych jednostek administracyjnych dokonano ich typologii, wykorzystując metodę J.W. Webba (1963). Z dokonanej analizy wynika, że część miast i gmin prezentowanych aglomeracji zmieniła swoje położenie typologiczne. W analizowanym okresie nastąpiły również dość istotne zmiany struktury płci i wieku mieszkańców aglomeracji. Obserwowane tendencje zmian w zakresie starzenia się ludności potwierdzają również obliczone dla prezentowanych aglomeracji udziały procentowe ludności według grup ekonomicznych. Wyraźnie zmniejszył się udział dzieci i młodzieży w wieku poniżej 18 lat (grupa przedprodukcyjna). Proces zmian systemowych spowodował również zróżnicowanie warunków życia na terenie badanych aglomeracji. Obok omawianych w artykule pozytywnych zmian, występujące rozwarstwienie społeczeństwa spowodowało również powstanie obszarów biedy i bezrobocia. Wyniki przeprowadzonych badań wskazują, że w okresie transformacji systemowej (lata 1989-2006) nastąpiły dość istotne zmiany w zakresie rozwoju ludności poszczególnych stref wewnętrznych aglomeracji, miejsca zamieszkania, a także struktury wieku poszczególnych jednostek położonych na obszarze stanowiących przedmiot badań aglomeracji.