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SUPRACOMMUNAL SERVICE CENTERS IN POLAND

1. Introductory remarks

Administrative division of any country is primarily meant to serve the goal carrying out effective governing done by the dominating classes, through functioning of organs of the authorities, state administration, political organizations, and others, within the framework of a definite territorial setting. The administrative division does condition as well, though to a much lesser degree, activities of economic enterprises and institutions serving population, which is especially true in countries with strongly developed central governing authority /Rybicki 1982/. Formation of the territorial divisions should therefore result from associating the spatial setting of administration and authority competences with the existing and emerging spatial structures of economic /economic regions/, natural /natural regions/, or cultural /historical gravitations/ character /Panko 1984/. The assumptions mentioned were well satisfied by the three-level administrative division of Poland in force until 1975, in whose framework within relatively well pronounced spatial settings administration and management functions, population-oriented service, and economic activities were carried out.

Administrative reform of the division was started on January 1st, 1973 /Law Journal No. 49 p. 312, 1972/ by creation of communes, whose number was far smaller than the number of previously existing smaller units, village-level /gromada/, which totalled 4315 as of December 31st, 1972. In subsequent years, this reform was continued, becoming complete on June 1st, 1975 when the two-level administrative division of the country was finally implemented /Law Journal No. 16 p. 91, 1975 and Law Journal No. 17 p. 92, 1975/. Thus, almost overnight, the administrative structure of the country underwent tremendous transformation. The level of district /powiat/ was totally liquidated /there were 392 districts, including 78 town districts as of May 31st, 1975/, so that the intermediate management level entirely disappeared. On the other hand, the number of voivodships was increased significantly, from 22, with 5 specially distinguished urban voivodships, to 49. The number of communes, which at the start of the reform was 2365, underwent successive decrease in the following years. At the beginning of the 80s, however, under the pressure of society's postulates, this number started growing and has recently reached 2121 /Potrykowski 1984/.

The changes introduced into the administrative division of the country were primarily meant for rationalization and enhancement of the effectiveness of the country's government. In the new territorial setting, communes were given broad competences within the framework of organizational

and managerial functions, with coordinative and supervisory functions left to the voivodship authorities /Panko 1984/.

Effects brought about by the change of administrative division did not, however, stand up entirely to expectations linked with that maneuver. Liquidation of the intermediate administrative level constituted previously by districts brought about difficulties in management and administration of the country. The concept of vesting communes with a variety of responsibilities did not turn out properly effective, either, since communes cannot often carry out functions because of lack of financial means, inadequate availability of properly skilled employees, and insufficient technical equipment. Ultimately, the result of decentralization was only token in character. Namely, new, intermediate division levels started to emerge /supracommunal, supravoivodship/ created for so called special purposes. Though special divisions existed also when the three-level division was in force, they were few and the non-standard spatial organization of some state institutions was conditioned by the specifics of their functioning /railroads, shipping, military/. The scale of this problem can be well illustrated by the fact that before the two-level division was introduced, there had been merely some 20 such special spatial divisions, while presently their number is estimated at approximately 200 /Lijewski 1986/.

Thus, administrative reform did not liquidate in fact the spatial setting functioning until 1975

within the three-level territorial division of the country, but preserved them, although in significantly modified form. Only state administration and some political and social organizations adapted completely to the presently legitimate administrative division and function within the two-level structure. Other organizations, as well as numerous offices and state institutions, carry out their functions within their own, proper only for them, spatial structures, which do not coincide with the official territorial division of the country. The Council of Ministers' Ordinance of May 30, 1975 /Law Journal No. 17 p. 95 §§ 7 and 8, 1975/ obliges central and local organs of state administration as well as cooperative associations to adapt spatial structures of units subject to them to the new administrative division. In most cases, however, this reduces to just a modification of geographical extent or stretch of their activities so as to follow the boundaries of new voivodships. Practically, this means that in many cases the old district structures were reactivated, along with old voivodship structures, though the latter in somewhat changed forms /Lipinska - Miros, 1984/.

2. Analysis of the spatial distribution of supracommunal /sub regional/ service centers and of their reach of influence

There are approximately 30 different offices and state institutions operating at the supracommunal, i.e., previous district or sub regional, level, servicing within one unit a dozen towns and communes.

Their statutory spheres of activity are very differentiated, including, for instance: financial service, judiciary system, protection of public order, agricultural service, and health care.

This paper reports on work in which 10 such institutions, functioning on a supracommunal /district/ level and having great social and political significance, were considered. These institutions were:

1. revenue and taxation offices,
2. state notariates,
3. district committees for minor offences,
4. professional fire brigades /district headquarters/,
5. district courts,
6. juvenile criminal divisions,
7. state district public prosecutor's offices,
8. district offices of home affairs,
9. offices of the State Insurance Company,
10. offices of the Social Insurance Company.

The geographic reach of operations of the offices and institutions of the district level coincides approximately with the areas of previous districts /powiat/. The number of district-level geographical units differs depending upon institution, ranging from 198 /juvenile criminality divisions/ to 359 /committees for minor offences/; /Table 1.*./

Offices and institutions at the district level often have a similar, and sometimes even identical, reach of their local operations. In some, though, the situation is much more complicated. For

* District offices located in particular quarters of 5 Polish towns /Warsaw, Łódz, Cracow, Wrocław, and Poznan/ were not accounted for because of their very specific location character, depending mainly upon location availability.

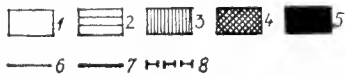
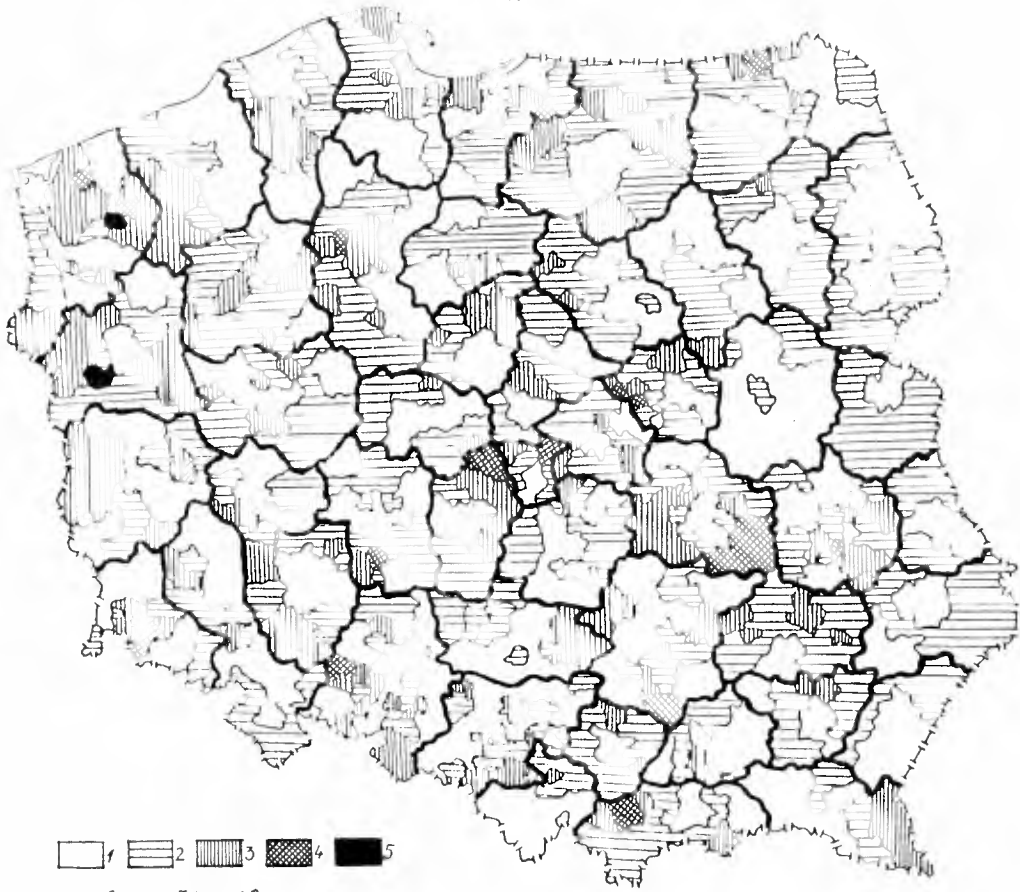
example, in 3 voivodships there are communes or towns whose population is provided various types of service by offices located in 5 different urban centers /out of just 10 located there!/: the town and commune of Kety in Bielsko-Biala voivodship; the commune Krzeszyce in Gorzów Wielkopolski voivodship; and the town and commune of Dobra in Szczecin voivodship. Within as many as 22 voivodships there are territorial units belonging to operating areas of 4 different centers. All towns and communes in only 8 voivodships /Biala Podlaska, Chelm, Przemysl, and Siedlce/ were served from at most 2 centers /Table 2 and Fig. 1/.

In order to better - more precisely - determine the magnitude of spatial differentiation, for the whole country with respect to the problem here undertaken, a simple calculation was performed. For every voivodship, the coefficient of attendance, W_0 , was calculated. This coefficient is equal to the average number of district centers from which population of towns and communes in a given voivodship /i. e., basic territorial units/ are provided service:

$$W_0 = \frac{G_1 + 2G_2 + \dots + nG_n}{G_1 + G_2 + \dots + G_n}$$

where G_1, G_2, \dots, G_n are numbers of basic territorial units of a given voivodship whose population is served by, respectively, 1, 2, ..., n different district centers.

For the 49-element set of data containing values of W_0 for particular voivodships, the standard deviation of W_0 was calculated, i. e.,



Towns or communities attracted by:

1=one centre

5=five centres

2=two centres

6=boundaries of areas covering towns
and communities attracted by the
same number of centres

3=three centres

4=four centres

7=voivodship boundaries

8=national border

FIGURE 2 Towns and communities attracted by various
number of centres

$$6/W_0 = \sqrt{\frac{\sum_{i=1}^{49} /W_{0i} - \bar{W}_0/2}{49}}$$

where W_{0i} - coefficient of attendance of the i -th voivodship.

\bar{W}_0 - average value of the coefficient for the whole country,

so that intervals defined by values: $\bar{W}_0 \pm 6$, $\bar{W}_0 \pm 26$, $\bar{W}_0 \pm 36$ could be determined. Voivodships, therefore, could not only be ordered according to the magnitude of W_{0i} , but also classified into 6 classes corresponding to these intervals /Table 2 and Fig. 2/.

Voivodships, having the highest values of the W_0 indicator, display weakly pronounced unequivocal structure of service areas. Reaches of operation of particular institutions located in various district centers very often overlap significantly so that only a small number of towns and communes /below 30%, or even sometimes below 20%/ get their services from just one center /Table 2/.

For this respect, the situation is worst in 3 voivodships: Szczecin, Radom and the urban Łódź voivodship whose values of W_0 are, respectively, 2.46, 2.43, and 2.42 and are located in the extreme class for which $W_0 > \bar{W}_0 + 26$. This situation apparently is caused primarily by the fact that within these three voivodships, there is a relatively high number of towns with similar magnitudes, each of them aspiring to the role of a district center even though they had not been district seats before 1975. Thus, only a portion of all the aspiring towns are given the

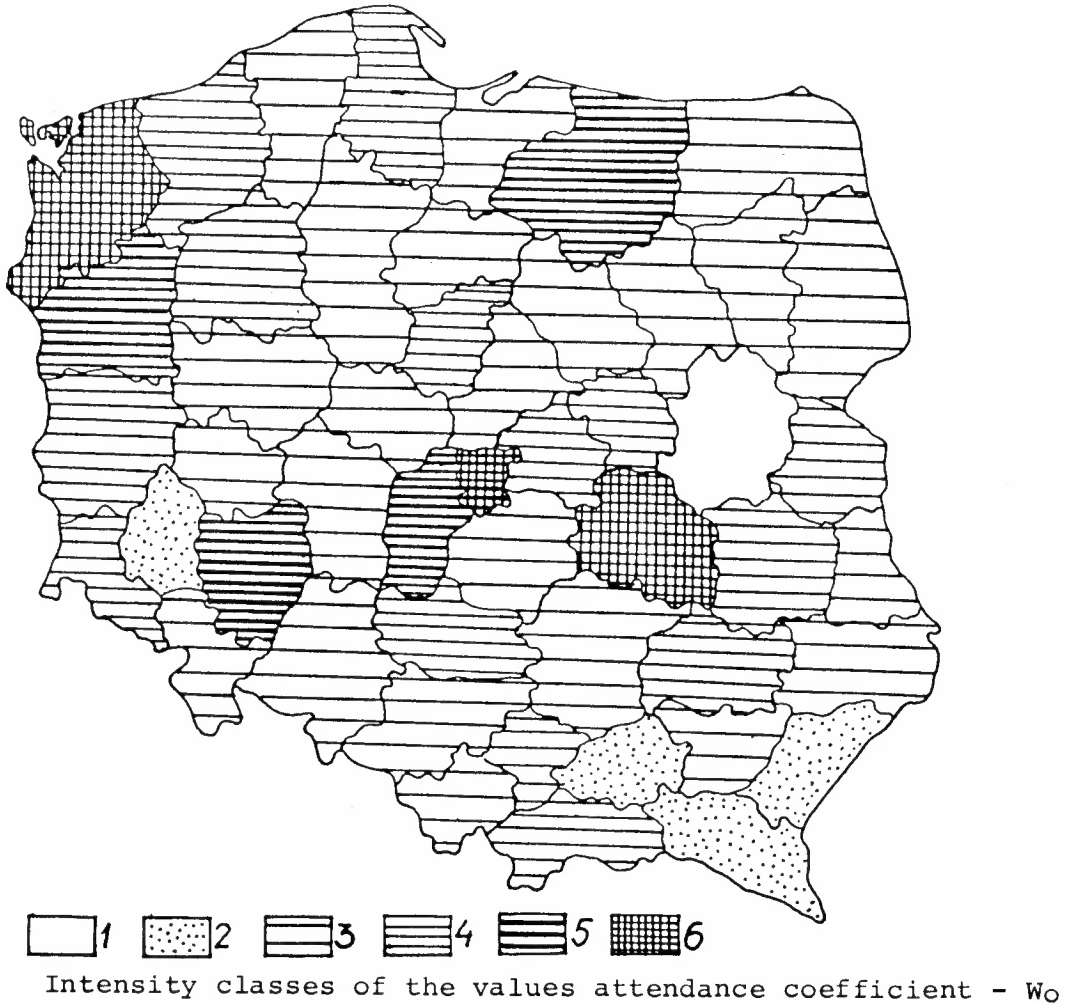


FIGURE 2 Spatial differentiation of the intensity attendance coefficient W_0 in Poland by voivodships

functions of district centers for all the 10 chosen state institutions. In Szczecin voivodship, there are only 4 such fully "equipped" district centers out of the total number of 12 towns in which certain district-wide functions are located. In Radom voivodship, 2 out of the total of 10 are located, and in urban Łódź voivodship are located 2 out of 6 /Table 2/.

Another 4 voivodships /Sieradz, Gorzów, Olsztyn, and Wrocław/ are characterized by attendance coefficient values of between $\bar{W}_0 + 6$ and $\bar{W}_0 + 26$, respectively: 2.31, 2.25, 2.14, and 2.13. There are, also in these voivodships at least within their certain subareas, relatively too many towns aspiring to the role of a district center, even if these towns are all previous district seats as is the case of Olsztyn and Sieradz voivodships. The number of towns in which all the district-wide functions are located are small, in comparison with the total numbers of towns in which some district functions are located. For individual voivodships, these numbers are: 1 out of the total /Sieradz/, 2 out of 11 /Gorzów/, 1 out of 11 /Olsztyn/, and 3 out of 9 /Wrocław/; see Table 2.

The lowest values of W_0 are attained in the voivodships whose operational reaches of particular district offices are unequivocal and only slightly overlapping. The minimum value of the attendance coefficient W_0 within the set of voivodships occurs for Siedlce voivodship, the only one in the class of those with W_0 values between $\bar{W}_0 - 26$ and $\bar{W}_0 - 36$, with $W_0 = 1.19$. Such a low value of W_0 indicates the fact that the spatial division of district offices and institutions existing within this particular voivodship follows almost exactly the reaches of opera-

tions of previous districts. Out of a total of 6 towns in which district institutions are located, as many as 5 encompass all of the 10 functions considered and only one town - Sokolow Podlaski - has less, namely, 6 district-wide institutions
/Table 2/.

There are four voivodships in Poland for which values of attendance coefficient W_0 are contained in the interval $\bar{W}_0 - 26$ and $\bar{W}_0 - 6$: Legnica - 1.45; Przemysl - 1,50; Tarnów - 1.51; and Krosno - 1.53. These voivodships have well shaped attendance areas, and there is a large share, over 50%, of towns and communes provided service from just one district center /see Table 2/.

The other 37 voivodships fall into the class for which attendance coefficient values are contained in the interval $\bar{W}_0 - 6$, $\bar{W}_0 + 6$. In this dichotomous class, there are decidedly more voivodships having W_0 below \bar{W}_0 , the latter value being 1.83. The number of these voivodships is 23 and they are located as a rule in the Eastern part of the country /see Table 2 and Fig. 2/. The district centers network is better organized there as can be explained, for instance, by the lower number of such towns in this area aspiring to the role of district office seats, so that, naturally, the territorial reach of service areas there is much more homogeneous. The other part of this group, containing voivodships with W_0 above \bar{W}_0 , encompasses 14 voivodships, with the somewhat less homogeneous network of district offices as compared to the previous part of the group with $W_0 < \bar{W}_0$. These voivodships are located primarily in Western Poland. Besides that, however, there are two urban voivodships among

these 14, namely Cracow and Warsaw urban voivodships, that display the highest coefficient values W_0 in this group, respectively 2.06 and 2.08.

More detailed analysis of data concerning spatial distribution of service centers in Poland and of their reach of operations makes it possible to detect certain regularities. Thus, in the areas where the urban settlement network is sparse and with the low numbers of towns of sufficient size, state offices and institutions are located almost exclusively in previous country seats, in view of the lack of other centers in which they could have functioned. In such a case, the geographical stretches of the attendance areas of district offices coincide in a majority of cases with the areas of previous districts /powiat/. This situation appears mainly in the areas of Eastern Poland and that is why the values of the attendance coefficient W_0 are the lowest there. In the case of a dense urban settlement network, there often occurs a spatial split of administrative and service functions among various towns aspiring to the role of a district center, even though they might not have functioned as district seats before 1975. There are the following location factors influencing the location of a district office in a given town in the second case:

- availability of adequately skilled potential employees,
- adequate availability of land, buildings, and equipment,
- tradition,
- economic and political factors,
- arbitrary decisions of the central level of authority.

3. Final remarks

The reform of administrative division of Poland, which was carried out in 1975, has brought about a number of unexpected effects. In the two-level territorial division of the country, the number of voivodships, and even more so the number of communal territorial units, exceeded the rational scale of the so called management scope used in organizations /some 25 subordinate units, at most/, causing certain difficulties in the effective performance of supervision and coordination functions and provoking the emergence of intermediary levels as well as development of territorial unit concentration processes /Panko 1984/. This is closely related, for instance, to the development of special territorial divisions, inconsistent with the present formal two-level administrative division of the country, with numerous state offices and institutions working within the framework of these special divisions. A significant number of the special divisions repeat, to a large extent, the old administrative structures, referring through their area delineations to districts or to voivodships from before 1975. This finding shows the impossibility or purposelessness of functioning of various state institutions within the organizational structures entirely coinciding with the two-level territorial division of the country. Thus, the appearance of special divisions seems to be entirely justified at the present stage.

The real problem related to special divisions boils down to the existence of enormous differences in the spatial organization of district offices of

particular institutions. This is to a large extent caused by the fact that decisions as to territorial organization of district offices and institutions were left to particular branches of the economy and cooperative associations, which ultimately led to the current state of affairs.

The present state of functioning of various institutions within the framework of special divisions though can - and certainly should - be liquidated. This is postulated by the law of the system of people's councils and territorial selfgovernment /Law Journal No. 41 p. 185 art. 23 and 178, 1983/. For this purpose, it seems, a number of towns should be selected to host all - eventually almost all - functions of population service. Then the decision should be made /at the central level and with adequate information/ regarding the reaches of operations of particular district level centers of services for population, which should be as equal as possible.

The basis for creation of the district center network should be constituted by a majority of previous district seats, approx. 300 in number and, possibly, some additional towns that had not been district seats before 1975. It should, however, be very strongly emphasized that elaboration of such a homogeneous organizational division must be preceded by detailed studies related to matters considered, so that the organizational division could constitute the platform for efficient management within all the institutions encompassed by the division. This new spatial organization should be coordinated with the voivodship and supravoivodship division.

References

/all in Polish/

1. JAROSZYNSKI, A. - KOMOROWSKI, S. M. /ed/ /1982/
Spatial economy of Poland and territorial organization of the country, Warsaw.
2. Law of November 29th, 1972 on creation of communes and on the change of law concerning people's councils. Law Journal of December 1st, 1972 No. 49. p. 312.
3. Law of May, 28th 1975 on the two-level administrative division of the State and on the change of law concerning people's councils. Law Journal of May 28th, 1975 No. 16 p. 91.
4. Law of July 20th, 1983 on the system of people's councils and territorial selfgovernment. Law Journal of July 28th, 1983 No. 41. p. 185.
5. LIJEWSKI, T /1986/ In; Biuletyn KPZK PAN vol. 128.
6. LIPINSKA, J. - MIROS, K.: Spatial division of activities of justice departments and public order protection units as well as other chosen institutions of servicing nature. In: Expertise of the Polish Association of Urban Planning entitled; "Assessment of the present administrative division of Poland and conclusions drawn against its background". Typescript 1984.
7. Ordinance of Council of Ministers, of May 30th, 1975 on designation of towns and communes forcing particular voivodships. Law Journal

of May 31st, 1975 No. 17 p. 92.

8. Ordinance of Council of Ministers, of May 30th, 1975, on adaptation of organization and scope of operations of local organizational units to the new administrative division of the state. Law Journal of May 31st, 1975 No. 17 p. 95.
9. PANKO, W. /1984/ In: Biuletyn KPZK PAN vol. 126.
10. POTRYKOWSKI, M. /1984/ In: Biuletyn KPZK PAN vol. 126.
11. Problems of territorial division of the country. Biuletyn KPZK PAN vol. 83. PWN Warszawa 1974.
12. RYBICKI, Z. /1982/ Spatial economy of Poland and territorial organization of the country.
13. STASIAK, A. /ed/ /1984/ Administrative division of the country. Views and opinions. Biuletyn KPZK PAN vol. 126. PWN Warszawa.
14. STASIAK, A. /ed/ /1986/ Administrative division of the country. Studies. Materials. Discussions. Biuletyn KPZK PAN vol. 128. PWN Warszawa.

Table 1

Alphabetical list of attending centers being a seat of district offices

Voivodship	Number of attending centers (of these previous district seats)	Number of offices and institutions of state administration (of these offices located in previous district seats) *									
		1	2	3	4	5	6	7	8	9	10
1 capital Warszawa	9/ 7/	7/ 7/	5/ 5/	9/ 7/	8/ 7/	7/ 7/	7/ 7/	7/ 7/	8/ 7/	6/ 6/	3/ 3/
2 Białą Podlaska	6/ 4/	3/ 3/	2/ 2/	6/ 4/	4/ 4/	2/ 2/	2/ 2/	3/ 2/	5/ 4/	4/ 4/	3/ 3/
3 Białystok	8/ 8/	5/ 5/	3/ 3/	8/ 8/	8/ 8/	3/ 3/	3/ 3/	4/ 4/	8/ 8/	8/ 8/	4/ 4/
4 Bielsko-Białą	9/ 6/	6/ 6/	7/ 6/	7/ 6/	6/ 6/	6/ 6/	6/ 6/	6/ 4/	7/ 6/	6/ 6/	6/ 6/
5 Bydgoszcz	11/ 9/	7/ 7/	9/ 9/	10/ 9/	10/ 9/	7/ 7/	5/ 5/	6/ 6/	11/ 9/	10/ 9/	4/ 4/
6 Chełm	3/ 3/	3/ 3/	3/ 3/	3/ 3/	3/ 3/	3/ 3/	3/ 3/	3/ 3/	3/ 3/	3/ 3/	1/ 1/
7 Ciechanów	6/ 6/	5/ 5/	5/ 5/	6/ 6/	6/ 6/	4/ 4/	3/ 3/	5/ 5/	6/ 6/	6/ 6/	6/ 6/
8 Częstochowa	7/ 6/	5/ 5/	4/ 4/	6/ 5/	6/ 5/	4/ 4/	3/ 3/	4/ 4/	6/ 5/	6/ 6/	3/ 3/
9 Elbląg	9/ 7/	4/ 4/	4/ 4/	8/ 6/	7/ 7/	4/ 4/	4/ 4/	5/ 5/	4/ 4/	6/ 6/	5/ 5/
10 Gdańsk	10/10/	9/ 9/	8/ 8/	10/10/	10/10/	7/ 7/	5/ 5/	9/ 9/	10/10/	9/ 9/	7/ 7/
11 Gorzów Wielkop.	11/ 9/	5/ 5/	5/ 5/	11/ 9/	9/ 9/	5/ 5/	5/ 5/	5/ 5/	6/ 6/	8/ 8/	4/ 4/
12 Jelenia Góra	7/ 6/	5/ 5/	6/ 6/	5/ 5/	7/ 6/	5/ 5/	3/ 3/	5/ 5/	5/ 5/	6/ 6/	4/ 4/
13 Kalisz	9/ 9/	5/ 5/	7/ 7/	5/ 5/	9/ 9/	5/ 5/	4/ 4/	5/ 5/	5/ 5/	8/ 8/	6/ 6/
14 Katowice	28/22/	25/22/	18/17/	25/22/	22/20/	21/20/	18/17/	21/20/	25/22/	17/17/	16/15/
15 Kielce	12/11/	9/ 9/	11/11/	11/11/	12/11/	8/ 3/	7/ 7/	9/ 9/	11/11/	11/11/	8/ 8/
16 Konin	6/ 4/	4/ 4/	4/ 4/	4/ 4/	4/ 4/	4/ 4/	2/ 2/	4/ 4/	4/ 4/	6/ 4/	3/ 3/
17 Koszalin	6/ 6/	5/ 5/	3/ 3/	5/ 5/	6/ 6/	5/ 5/	5/ 5/	5/ 5/	5/ 5/	5/ 5/	4/ 4/
18 urban Kraków	7/ 3/	4/ 3/	3/ 3/	7/ 3/	4/ 3/	2/ 2/	2/ 2/	2/ 2/	7/ 3/	3/ 3/	1/ 1/
19 Krosno	6/ 6/	5/ 5/	6/ 6/	6/ 6/	6/ 6/	5/ 5/	3/ 3/	5/ 5/	6/ 6/	5/ 5/	4/ 4/
20 Legnica	6/ 5/	5/ 5/	4/ 4/	5/ 5/	6/ 5/	5/ 5/	3/ 3/	5/ 5/	5/ 5/	5/ 5/	5/ 5/
21 Leszno	6/ 6/	4/ 4/	4/ 4/	6/ 6/	6/ 6/	4/ 4/	3/ 3/	4/ 4/	6/ 6/	6/ 6/	3/ 3/

* The numbers 1,2,...,10 denote the following offices and state institutions:

1. revenue and taxation office, 2. state notariates,
3. district committees for minor offences,
4. professional fire brigades (district head-quarters),
5. district courts, 6. juvenile criminal divisions,
7. state district public prosecutor's offices,
8. district offices of home affairs,
9. offices of the State Insurance Company,
10. offices of the Social Insurance Company.

Table 1 - continued

Voivodship	Number of attending centers (of these previous district seats)	Number of offices and institutions of state administration (of these offices located in previous district seats)									
		1	2	3	4	5	6	7	8	9	10
22 Lublin	10/8/	6/5/	4/4/	9/7/	9/8/	4/4/	4/4/	4/4/	9/7/	8/7/	4/4/
23 Łomża	5/5/	5/5/	4/4/	5/5/	5/5/	4/4/	2/2/	4/4/	5/5/	5/5/	3/3/
24 urban Łódź	6/3/	4/3/	3/3/	4/3/	5/3/	3/3/	3/3/	3/3/	3/3/	2/2/	3/3/
25 Nowy Sącz	9/5/	6/5/	6/5/	6/5/	7/5/	6/5/	3/3/	5/5/	6/5/	4/4/	3/3/
26 Opole	14/12/	9/9/	8/8/	10/10/	14/12/	7/7/	7/7/	7/7/	10/10/	11/11/	7/7/
27 Olsztyn	11/11/	6/6/	11/11/	11/11/	11/11/	7/7/	5/5/	8/8/	11/11/	11/11/	3/3/
28 Ostrołęka	6/5/	5/5/	3/3/	6/5/	5/5/	4/4/	3/3/	5/5/	5/5/	4/4/	4/4/
29 Piła	8/8/	5/5/	8/8/	7/7/	7/7/	6/6/	5/5/	6/6/	7/7/	7/7/	6/6/
30 Piotrków Tryb.	6/5/	5/5/	5/5/	5/5/	6/5/	5/5/	4/4/	5/5/	5/5/	5/5/	4/4/
31 Płock	5/5/	3/3/	3/3/	5/5/	5/5/	4/4/	2/2/	5/5/	5/5/	5/5/	3/3/
32 Poznań	9/8/	7/7/	8/7/	9/8/	7/7/	5/4/	5/4/	7/6/	8/8/	8/8/	6/5/
33 Przemysł	4/4/	4/4/	4/4/	4/4/	4/4/	4/4/	2/2/	4/4/	4/4/	4/4/	3/3/
34 Radom	10/8/	6/6/	5/4/	8/8/	8/8/	5/5/	3/3/	5/5/	9/8/	7/7/	4/4/
35 Rzeszów	7/7/	6/6/	7/7/	7/7/	7/7/	7/7/	3/3/	7/7/	7/7/	7/7/	3/3/
36 Siedlce	6/6/	6/6/	5/5/	6/6/	6/6/	5/5/	5/5/	5/5/	6/6/	6/6/	6/6/
37 Sieradz	5/5/	5/5/	4/4/	5/5/	5/5/	3/3/	1/1/	5/5/	5/5/	5/5/	3/3/
38 Skierniewice	6/6/	6/6/	6/6/	6/6/	6/6/	6/6/	2/2/	6/6/	6/6/	6/6/	3/3/
39 Słupsk	6/6/	4/4/	4/4/	6/6/	6/6/	4/4/	3/3/	4/4/	6/6/	5/5/	4/4/
40 Suwałki	9/9/	6/6/	5/5/	8/8/	9/9/	5/5/	5/5/	6/6/	8/8/	7/7/	4/4/
41 Szczecin	12/10/	7/7/	6/6/	12/10/	10/10/	8/8/	6/6/	10/9/	11/10/	7/7/	4/4/
42 Iarnobrzeg	7/7/	6/6/	6/6/	7/7/	6/6/	5/5/	3/3/	6/6/	6/6/	6/6/	4/4/
43 Tarnów	5/5/	5/5/	5/5/	5/5/	5/5/	5/5/	3/3/	5/5/	5/5/	5/5/	3/3/
44 Toruń	7/7/	6/6/	6/6/	7/7/	7/7/	6/6/	4/4/	6/6/	7/7/	7/7/	5/5/
45 Wałbrzych	11/7/	7/7/	6/6/	10/7/	8/7/	5/5/	5/5/	7/7/	7/7/	7/7/	7/7/
46 Włocławek	5/5/	5/5/	5/5/	5/5/	5/5/	4/4/	2/2/	5/5/	5/5/	5/5/	2/2/
47 Wrocław	9/8/	6/6/	7/7/	8/8/	9/8/	7/7/	5/5/	6/6/	8/8/	8/8/	3/3/
48 Zamość	5/4/	4/4/	4/4/	4/4/	4/4/	4/4/	2/2/	4/4/	4/4/	5/4/	4/4/
49 Zielona Góra	11/10/	6/6/	6/6/	10/10/	11/10/	8/7/	5/5/	7/7/	11/10/	10/10/	5/4/
P O L S K A	3(3) 9(4) 6(2)	2(2) 8(7) 6(9)	2(2) 7(7) 5(0)	3(3) 5(3) 9(0)	3(3) 5(3) 5(5)	2(2) 6(5) 0(6)	1(1) 9(9) 8(6)	2(2) 7(7) 7(1)	3(3) 4(2) 2(3)	3(3) 2(1) 1(6)	2(2) 1(0) 1(8)

Table 2
 Ranking of communes and towns /according to attendance coefficient
 values - W_0

Voivodship	Number of communes and towns	Number of attending centers		Attendance coefficient - W_0	Intervals of values		Number of communes and towns attended by:									
		Total	Number of centers having 10 offices		Intervals of values		1 center		2 centers		3 centers		4 centers		5 centers	
					$\bar{W}_0 - 3b / 1,05 /$	$\bar{W}_0 - 2b / 1,31 /$	%	%	%	%	%	%	%	%		
1 Siedlce	79	6	5	1,19	$\bar{W}_0 - 3b / 1,05 /$	$\bar{W}_0 - 2b / 1,31 /$	64	81,0	15	19,0	-	-	-	-	-	-
2 Legnica	42	6	3	1,45	$\bar{W}_0 - 2 / 1,21 /$	$\bar{W}_0 - b / 1,57 /$	26	61,9	13	31,0	3	7,1	-	-	-	-
3 Przemyśl	44	4	2	1,50			22	50,0	22	50,0	-	-	-	-	-	-
4 Tarnów	54	5	3	1,51			29	54,7	21	39,6	3	5,7	-	-	-	-
5 Krosno	51	6	3	1,53	$\bar{W}_0 - 2 / 1,21 /$	$\bar{W}_0 - b / 1,57 /$	30	58,8	15	29,4	6	11,8	-	-	-	-
6 Bielsko-Biała	65	9	4	1,58			38	58,4	22	33,9	1	1,5	2	3,1	2	3,1
7 Ciechanów	55	6	3	1,60			24	43,6	29	52,7	2	3,7	-	-	-	-
8 Piotrków Tryb.	61	6	3	1,61			26	45,9	29	47,5	4	6,6	-	-	-	-
9 Ostrołęka	48	6	3	1,62			23	47,9	20	41,7	5	10,4	-	-	-	-
10 Wałbrzych	61	11	5	1,62			28	45,9	29	47,5	3	4,9	1	1,7	-	-
11 Chełm	30	3	1	1,63			11	36,7	19	63,3	-	-	-	-	-	-
12 Zamość	56	5	2	1,64			22	39,3	32	57,1	2	3,6	-	-	-	-
13 Białystok	66	8	3	1,65			24	36,4	41	62,1	1	1,5	-	-	-	-
14 Suwałki	58	9	4	1,66			27	46,6	26	44,8	3	5,2	2	3,4	-	-
15 Łomża	52	5	2	1,67			18	34,6	33	63,5	1	1,9	-	-	-	-
16 Kalisz	75	9	4	1,68			31	41,3	38	50,7	5	6,7	1	1,3	-	-
17 Leszno	50	6	2	1,68			23	46,0	20	40,0	7	14,0	-	-	-	-
18 Płock	53	5	2	1,70			21	39,6	27	50,9	5	9,5	-	-	-	-
19 Konin	61	6	2	1,70			22	36,1	35	57,4	4	6,5	-	-	-	-
20 Słupsk	42	6	3	1,71			21	50,0	12	28,6	9	21,4	-	-	-	-
21 Opole	90	17	5	1,72			48	53,4	21	23,3	19	21,1	2	2,2	-	-
22 Poznań	90	9	3	1,76			31	34,4	50	55,6	9	10,0	-	-	-	-
23 Kielce	86	12	8	1,76			48	55,8	19	22,1	11	12,8	6	9,3	-	-
24 Rzeszów	55	7	2	1,76			18	32,7	32	58,2	5	9,1	-	-	-	-

Table 2 - continued

Voivodship	Number of communes and towns	Number of attending centers		Attendance coefficient - W_0	Intervals of values W_0	Number of communes and towns attended by:									
		Total	Number of centers having 10 offices			1 center	2 centers		3 centers		4 centers		5 centers		
							%	%	%	%	%	%			
25 Katowice	93	28	12	1,77	$\frac{W_0 - b/1,57}{W_0} / 1,83/$	45	48,4	25	26,9	22	23,6	1	1,1	-	-
26 Bydgoszcz	82	11	4	1,78		31	37,8	39	47,6	11	13,4	1	1,2	-	-
27 Elbląg	53	9	4	1,79		21	39,6	23	43,3	8	15,1	1	1,9	-	-
28 Toruń	54	7	2	1,81		16	29,6	32	59,3	6	11,1	-	-	-	-
29 Lublin	79	10	4	1,84	$\frac{W_0 - b/2,09}{W_0} / 1,83/ - W_0 + b/2,09/$	32	40,5	29	36,7	17	21,5	1	1,3	-	-
30 Koszalin	52	6	3	1,85		23	44,2	14	26,9	15	28,9	-	-	-	-
31 Piła	60	8	4	1,87		22	36,7	24	40,0	14	23,3	-	-	-	-
32 Biała Podlaska	42	6	1	1,88		5	11,9	37	88,1	-	-	-	-	-	-
33 Gdańsk	64	10	6	1,91		22	34,4	27	42,2	14	21,9	1	1,5	-	-
34 Włocławek	52	5	1	1,94		16	30,8	23	44,2	13	25,0	-	-	-	-
35 Jelenia Góra	53	7	3	1,94		24	45,3	15	28,3	7	13,2	7	13,2	-	-
36 Zielona Góra	76	11	4	1,95		31	40,8	19	25,0	25	32,9	1	1,3	-	-
37 Częstochowa	69	7	3	1,96		32	46,4	14	20,3	17	24,6	6	8,7	-	-
38 Skierniewice	45	6	2	2,00		9	20,0	27	60,0	9	20,0	-	-	-	-
39 Tarnobrzeg	66	7	1	2,03		8	12,1	48	72,7	10	15,2	-	-	-	-
40 Nowy Sącz	57	9	2	2,05		17	29,8	26	45,6	8	14,1	6	10,5	-	-
41 urban Kraków	48	7	1	2,06		3	6,2	39	81,3	6	12,5	-	-	-	-
42 capital Warszawa	59	9	3	2,08		11	18,6	35	59,3	10	17,0	3	5,1	-	-
43 Wrocław	53	9	3	2,13	$\frac{W_0 - b/2,09}{W_0 + 2b/2,35/}$	14	26,4	18	34,0	21	39,6	-	-	-	-
44 Olsztyn	69	11	1	2,14		10	14,5	40	58,0	18	26,1	1	1,4	-	-
45 Gorzów Wielkop.	59	11	2	2,25		12	20,3	23	39,0	22	37,3	1	1,7	1	1,7
46 Sieradz.	49	5	1	2,31		8	16,4	23	46,9	13	26,5	5	10,2	-	-
47 urban Łódź	19	6	2	2,42	$\frac{W_0 + 2b/2,35/}{W_0 + 3b/2,61/}$	3	15,8	9	47,4	3	15,8	4	21,0	-	-
48 Radom	76	10	2	2,43		18	23,7	21	27,6	23	30,3	14	18,4	-	-
49 Szczecin	81	12	4	2,46		22	27,2	13	16,0	35	43,2	9	11,1	2	2,5
P O L S K A	2933	339	152	1,83	$\frac{W_0}{W_0}$	1132	38,6	1259	42,9	451	15,4	86	2,9	5	0,2