

## CHANGES IN THE GEOGRAPHICAL DISTRIBUTION OF POPULATION IN CZECHOSLOVAKIA

**Změny v geografickém rozložení obyvatelstva v Československu.** — Přesná čísla o počtu obyvatel podle jednotlivých obcí poskytují censy konané po 10 letech již celé století. Rok 1921 můžeme považovat za důležité rozmezí. V obdobích největší kapitalistické konjunktury zesiluje se diferenciacce v hustotě osídlení jednotlivých částí Československa. Podíl obyvatelstva Slovenska z počtu obyvatelstva Československa klesl z 25 % r. 1869 na 22 % r. 1910.

Největší změny v geografii obyvatelstva nastaly v souvislosti s odsunem Němců po druhé světové válce. Teprve r. 1961 máme o něco více obyvatelstva než r. 1921. Ale jeho geografické rozložení je zcela odlišné.

Tomuto tématu je věnována autorova mapa v měřítku 1 : 200 000, vystavená na XX. Mezinárodním geografickém kongresu v Londýně.

Rozdíly v geografickém rozložení obyvatelstva v Československu sledujeme dále různými statisticko-geografickými metodami. Použili jsme směrodatné odchylky, Lorenzovy křivky a metody centografické. Ukázalo se, že rozdíly jsou menší, než se předpokládalo.

Czechoslovak geography pays much attention to population, the main reason being the fact that the changes in the distribution of population have been extraordinary in this country. The ČSSR has also a low natural increase of population (in the last decade the average annual increase on 1000 ~~middle-class~~ ~~inhabitans~~ inhabitants is 8,3), so that the problem of labour is the more pressing.

Censuses made every ten years during the last century give us exact figures as far as the population numbers in individual localities are concerned. The changes in the geographical distribution of population can be traced only after a difficult reconstruction of territorial units (parishes) to the present state has been carried out. This has been done with districts (and regions) since 1869, and localities since 1921. The year 1921 is considered an important turning point. The previous period is characterized by a high natural increase of population diminished by an extensive emigration, and by the capitalist boom and appurtenance of this country to the large economic complex of the Austro-Hungarian Empire as well. The year 1921 brings a change in all of these factors.

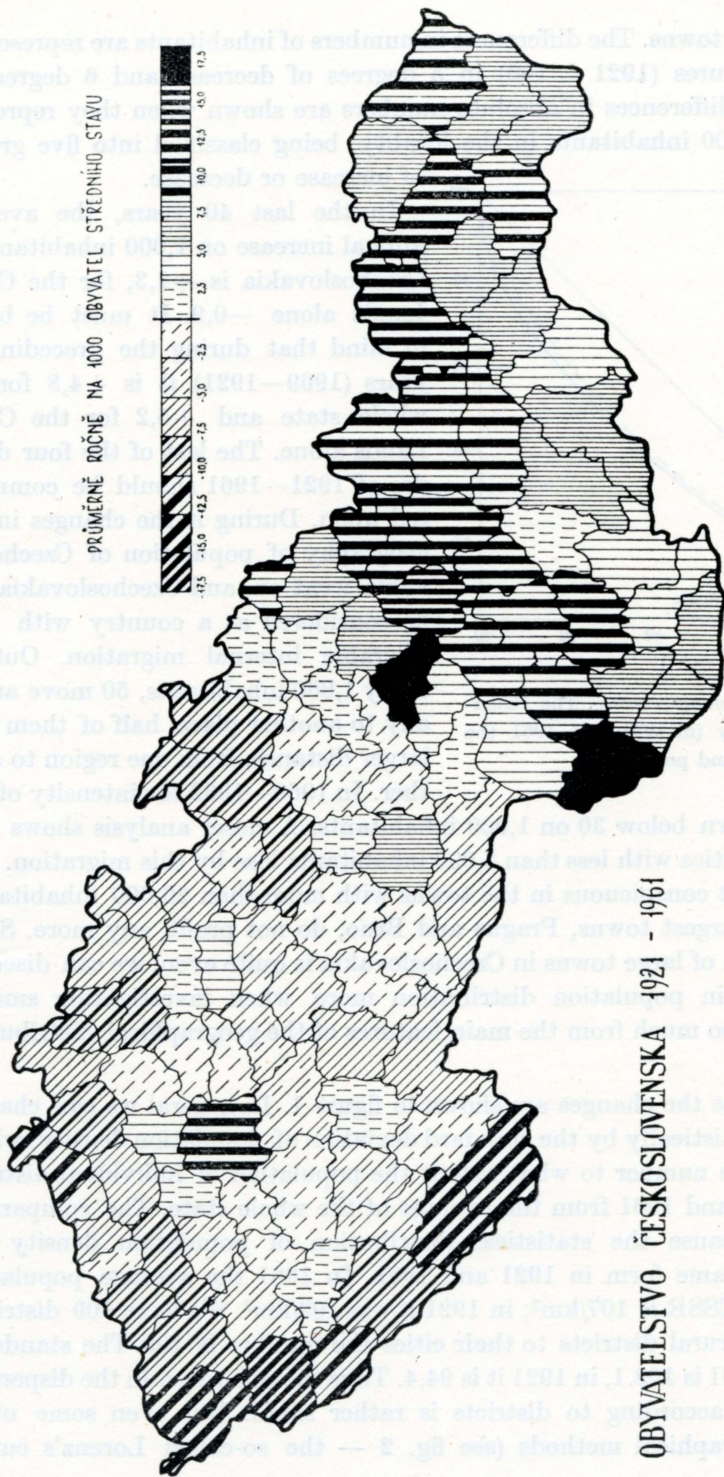
The development of population in the Czechoslovak regions  
(1921 = 100)

Region							1961
	1869	1890	1910	1930	1950	1961	number of inhabitants in thousands
Central-Bohemian + Prague	66	81	98	114	113	120	2,273
South-Bohemian	94	98	102	97	74	77	650
West-Bohemian	76	86	101	105	66	70	829
North-Bohemian	68	83	104	108	70	74	1,085
East-Bohemian	94	99	105	102	84	87	1,199
South-Moravian	75	85	98	106	101	110	1,900
North-Moravian	70	81	99	108	92	106	1,163
West-Slovakian	73	82	95	113	120	143	1,761
Central-Slovakian	83	86	98	109	111	139	1,301
East-Slovakian	96	92	100	112	113	139	1,113
Czechoslovakia	78	87	100	108	95	106	13,742

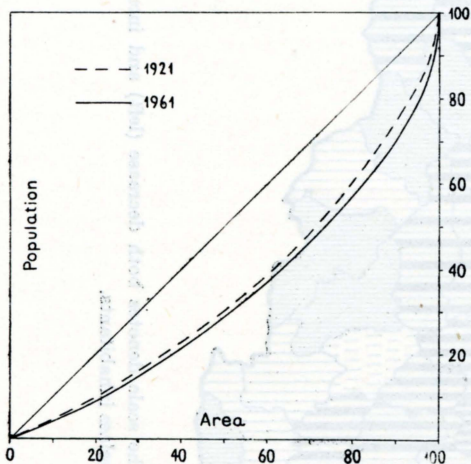
Before the first World War there was a considerable development of industries in the Czech Lands, and in a number of districts, to which the immigration from both neighbouring and more remote districts was directed, the annual natural increase of population amounts to 20, or even more, on every 1,000 inhabitants. Two decades were enough for the number of inhabitants of such districts to be doubled. Slovakia takes no part in the economic development and the consequences of this fact are to be seen in the share of this eastern part in the total number of inhabitants of Czechoslovakia. Amounting to 25 per cent in 1869 (more than 30 per cent in the 18th century), this share was lowered to 23 per cent in 1890 and 22 per cent in 1910. (Today it is again over 30 per cent.)

The changes in the geography of population, unique in their extent, are connected with one of the consequences of the 2nd World War — the transfer of the Sudete Germans. According to the census of 1950, the number of inhabitants was by 1,660 thousands lower than that of 1930 (in 1940 there was no census owing to the German occupation). The natural increase could not compensate for the decrease caused by the transfer and war loss. As late as in 1961 the number of inhabitants reaches, roughly, that of 1930, and is a little higher than in 1921. However, its composition is rather different, not only as to nationalities and economic and age structures, etc., but as to the geographical distribution as well. It is in these changes, which have been in progress these years as concomitant phenomena of the socialist industrialization, that the geographer is interested most.

For the exhibition of maps at the 20th International Geographical Congress in London, we have prepared a map in the scale of 1 to 200,000, depicting in detail the period of 1921—1961. Only the smallest localities (of less than 100 hectares or with less than 100 inhabitants) have been joined to some of the neighbouring ones, and agglomerated settlements have been



annexed to big towns. The differences in numbers of inhabitants are represented by relative figures (1921 = 100) in 5 degrees of decrease and 6 degrees of increase. The differences in absolute numbers are shown when they represent more than 1,000 inhabitants in the locality, being classified into five groups of increase or decrease.



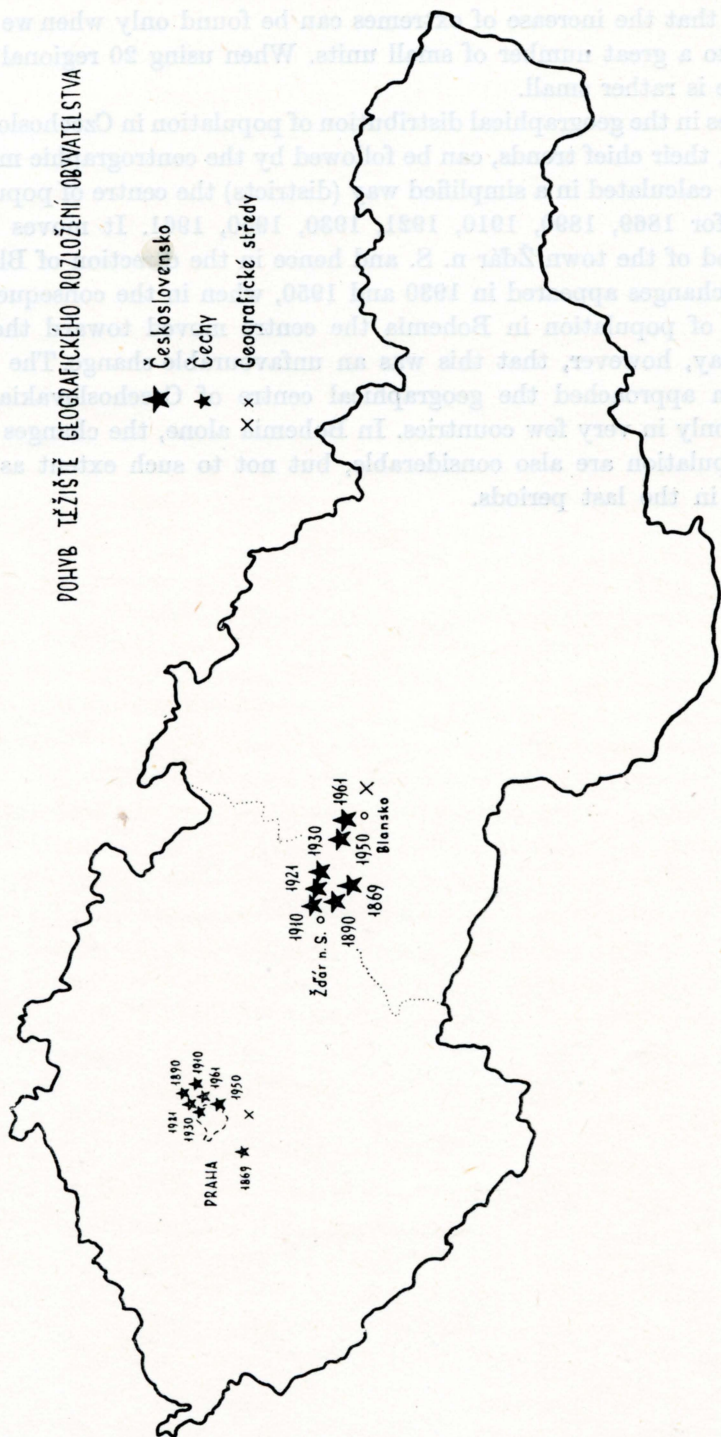
2. The so-called Lorenz's curve. The distribution of territory (in 1921 and 1961 the same) and population.

In the last 40 years, the average annual increase on 1,000 inhabitants in Czechoslovakia is +1,3, for the Czech Lands alone -0,9. It must be borne in mind that during the preceding 40 years (1921—1961) it is +4,8 for the whole state and +5,2 for the Czech Lands alone. The last of the four decades of 1921—1961 should be commented upon. During it the changes in the geography of population of Czechoslovakia went on, and Czechoslovakia can be considered as a country with considerable internal migration. Out of every 1,000 inhabitants, 50 move annually to another place, half of them to a larger distance, from one region to another. In 1960—1962 the intensity of migration fell down below 30 on 1,000 inhabitants.

A closer analysis shows that almost all localities with less than 5,000 inhabitants lose by this migration. The increase is most conspicuous in the towns with more than 20,000 inhabitants; however, the largest towns, Prague and Brno, do not profit any more. Since the distribution of large towns in Czechoslovakia is quite even, we can discover large changes in population distribution more when investigating smaller areas, and not so much from the main features of the geographical distribution of population.

As to districts the changes are shown in figure 1. In general we can characterize them statistically by the standard deviation of population density, which shows us in one number to what extent the population of individual districts differs in 1921 and 1961 from the average of the whole state. The comparison is possible because the statistical distribution of population density has, basically, the same form in 1921 and 1961. In 1961 the average population density in the ČSSR is 107/km<sup>2</sup>; in 1921 it was 102/km<sup>2</sup>. We have 109 districts; if we join the rural districts to their cities the number is 103. The standards deviation in 1961 is 108.1, in 1921 it is 94.4. Thus the difference in the dispersion of settlements according to districts is rather small. But even some other statistical-geographical methods (see fig. 2 — the so-called Lorenz's curve)

POHYB TĚŽIŠTĚ GEOGRAFICKÉHO ROZLOŽENÍ OBYVATELSTVA



3. The centre of population in Czechoslovakia (and in Bohemia alone) and its movement in 1869—1961. The asterisks denote the position of the centre for the year in question, the cross represents the geographical centre of the area.

show as well that the increase of extremes can be found only when we divide the CSSR into a great number of small units. When using 20 regional units, the difference is rather small.

The changes in the geographical distribution of population in Czechoslovakia, better to say, their chief trends, can be followed by the centrographic method, too. We have calculated in a simplified way (districts) the centre of population distribution for 1869, 1890, 1910, 1921, 1930, 1950, 1961. It moves in the neighbourhood of the town Žďár n. S. and hence in the direction of Blansko. The deepest changes appeared in 1930 and 1950, when in the consequence of the decrease of population in Bohemia the centre moved toward the east. We cannot say, however, that this was an unfavourable change. The centre of population approached the geographical centre of Czechoslovakia. This has occurred only in very few countries. In Bohemia alone, the changes of the centre of population are also considerable, but not to such extent as could be expected in the last periods.