

## A "DEMOGRAPHIC PENINSULA" IN CROATIA<sup>1</sup> - FERTILITY FEATURES OF THE DRAVA-REGION BASED ON THE HUNGARIAN CENSUS IN 1910

### "DEMOGRAFSKI POLUOTOK" U HRVATSKOJ – FERTILITET U REGIJI DRAVE PREMA MAĐARSKOM POPISU 1910.

Gabor HARRACH

Kalapcs u. 12

1148 Budapest

Hungary

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#### SAŽETAK

*U članku se objašnjavaju znatne razlike u stopi fertiliteta u krajevima uz rijeku Dravu, a na osnovi mađarskog popisa stanovništva iz 1910. godine. Već je tada stopa fertiliteta (i nataliteta) bila niža na području Bjelovarsko-križevačke županije i Županije Somogy nego u ostalim okolnim hrvatskim i mađarskim županijama. Osobito je niska stopa fertiliteta bila na području Podravine, dok je ta stopa u Varaždinskoj županiji i Virovitičkoj županiji bila znatno viša. Zato se može govoriti o fenomenu određenog "demografskog otoka" s niskim natalitetom.*

**Key words:** Historical demography, fertility rate, birth rate, ethnics and denominations

#### INTRODUCTION

"It has been half a century that Petar Matković launched the independent Croat statistical literature,<sup>2</sup> and the Royal Statistical Office of Zagreb has been existing for only forty years (since 1875), but during this period the Croat statistical profession has reached such a standard of development that it would give enough reason to be proud for any other nations in the West." This is the initial sentence of a book entitled *The population of Croatia*, written by József Szücsi, issued in Budapest, 1916. The author in his introduction takes offence at the representatives of the Hungarian social sciences that they examine mostly distant nations while "having lived in the same state community with our Croat brothers \_ the long joint historical past had created such a connection between the two nations that we (*Hungarians – G.H.*) should keep in view the relations with them always with the greatest interest".<sup>3</sup>

<sup>1</sup> Maps of this study, based on the author's data, were made by László Sebok.

<sup>2</sup> Statistički nacrt trojedne kraljevine, 1864

<sup>3</sup> The original parametres of the book: Szücsi József: *Horvátország népessége*. Budapest, Fritz Ármin Könyvnyomdája, Budapest, 1916

Szücsi's work is one of the most comprehensive summaries of the demographic relations of Croatia from this period, the value of which will not be changed either in positive or in negative sense by the author's political comments. The interest of researchers in border regions revived nine decades later, after the change of regimes in Eastern and Central Europe, parallel with the establishment of Euroregions. Hence I will write about the demographic relations of the time when Croat–Hungarian state border was still considered to be an inner frontier, thus this social area was less divided than nowadays. This summary contains a small part of a longer research, the aim of which is to examine the impacts of traditional social facts (religion, ethnicity, property relations, educational level, rates of employment, family-sociological features) on fertility in Central Europe at the beginning of the 20<sup>th</sup> century. The following text is about the possible coherences between ethnic/religious relations and fertility.

A few generations ago these facts determined the demographic processes in Europe much more than today. Central-Europe is one of the most interesting subjects to research this phenomena. First of all religious traditions still played an important role in everyday life of the region at this time, but on the other hand a lot of social facts had already had impacts on reproduction, such as the proportion of literates and educated persons, estate conditions, distribution of employees by different sectors, etc. In our case the most important question is how ethnic and religious proportions can determine the formation of fertility of this multicultural area at the beginning of the 20<sup>th</sup> century. The Austro–Hungarian Monarchy, extending to 667 thousand square kilometers within Central Europe, was the most multi-ethnic political conglomerate in Europe in the 19-20<sup>th</sup> century. I chose to examine four Croatia and one Hungarian counties (as a small region of the Monarchy) along the River Drava, which formed at that time an inner state border between Hungary and Croatia (see the maps below). Inhabitants living here belonged to the big religious cultures of Europe (Roman Catholic, Protestant, Orthodox). The data applied during the research are based on the Hungarian census in 1910.

### GENERAL FERTILITY FEATURES IN THE AREA RESEARCHED

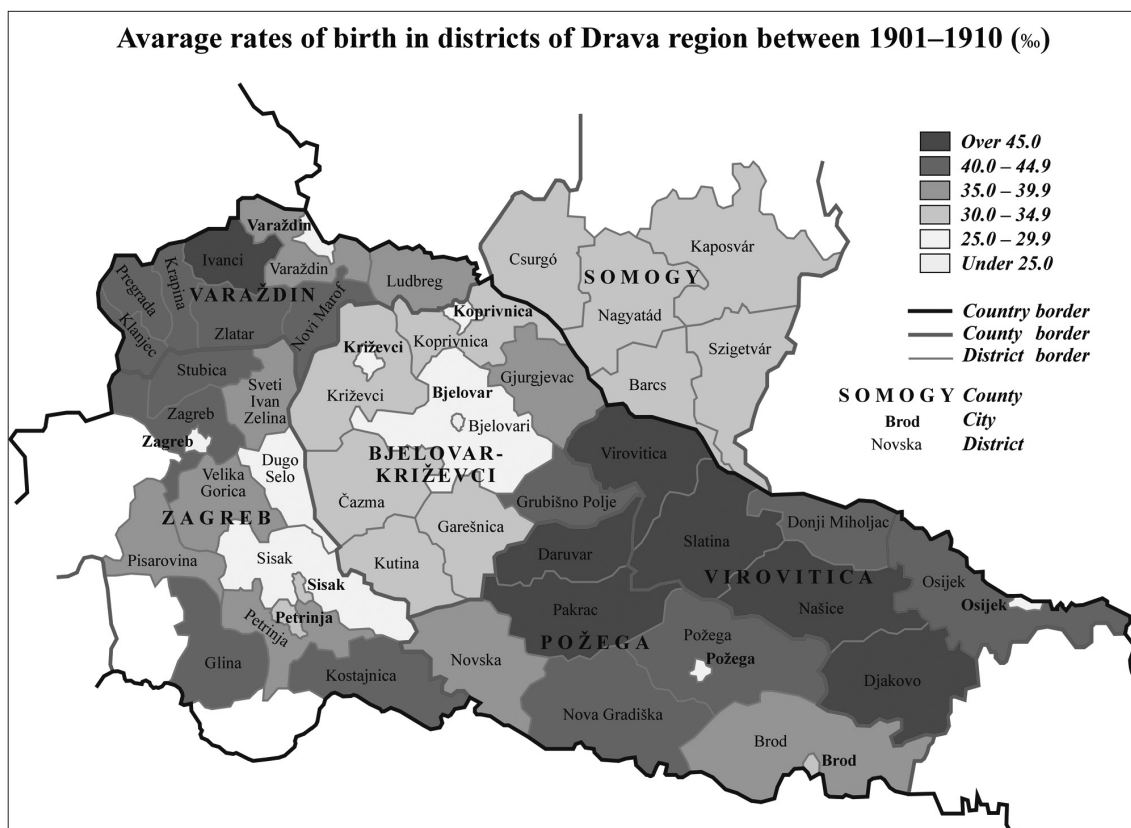
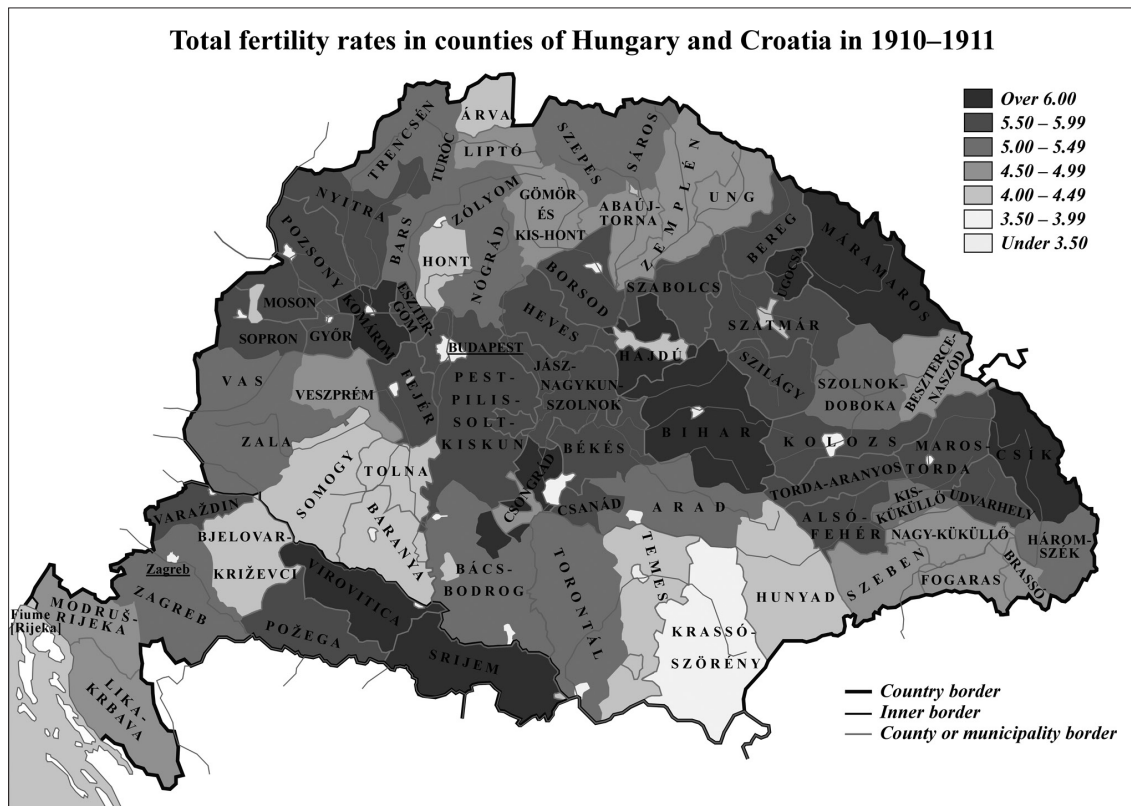
Areas which consist of counties having similar fertility rates are named here as "demographic regions". The first map below shows the total fertility rates in the counties and major cities of Hungary and Croatia in 1910–1911.

In our case the fertility rates in counties nearby the River Drava are only relevant for us. It is obvious that counties situated at the southern side of the river have high rates, but all of their neighbor counties in Hungary have low ones. The geographical continuity of the Croat counties having high fertility is broken interrupted by a "demographic peninsula", Bjelovar-Križevci county, the rate of which is similar to the Hungarian counties' as it can be seen below.

1<sup>st</sup> table: The total fertility rates of counties examined in Hungary and Croatia

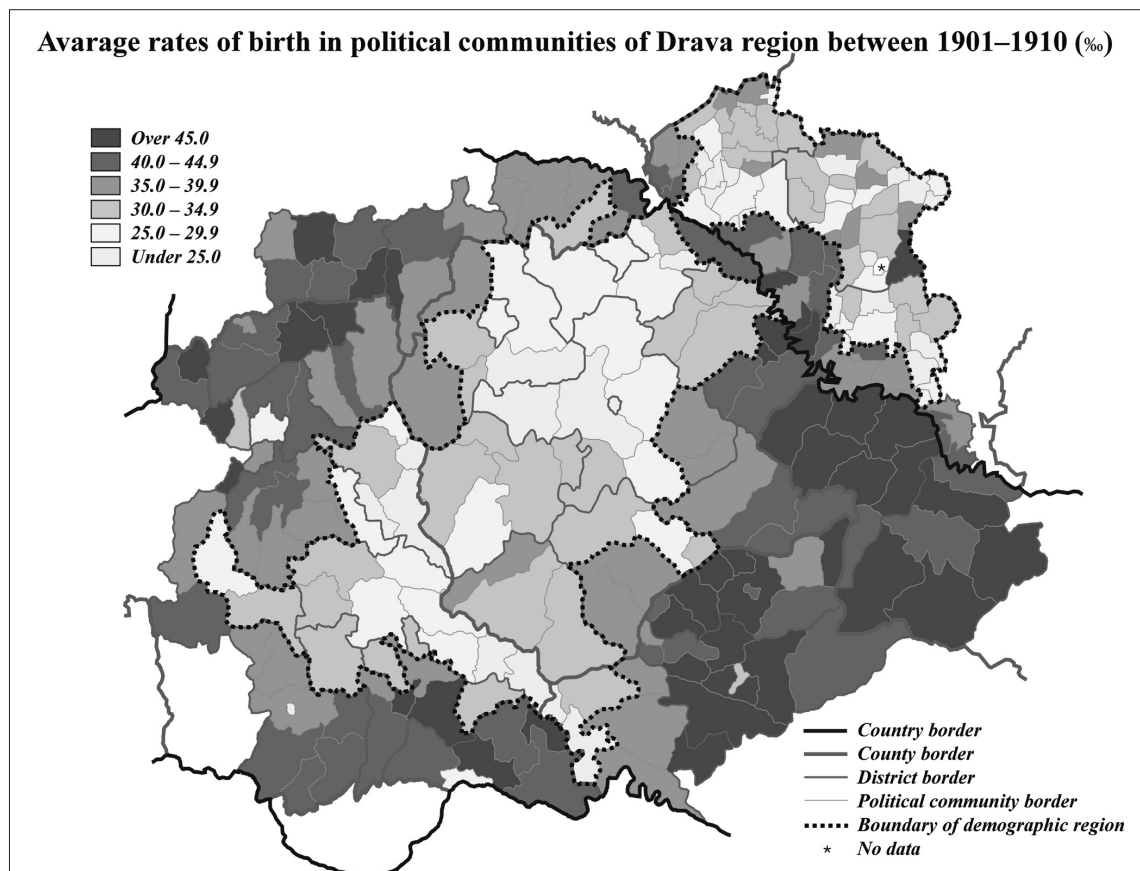
		1900-1901	1910-1911
Hungary	Somogy	4.94	4.34
	Bjelovar-Križevci	4.51	4.31
Croatia	Varaždin	5.75	5.66
	Požega	5.50	5.53
	Virovitica	6.05	6.12

The demographic data on district level can be found in the 2<sup>nd</sup> map. It shows the average birth rates between 1901–1910 in each districts. (On this administration level fertility rates could not be calculated from the data of the Hungarian census in 1910.)



It can be seen that there are very large territorial deviations between the rates of births, and sharp boundaries are located between the areas with high and low rates. This fact enables the comparative examinations of demographic features and other social variables on a territorial basis. During the research I examined 252 settlements which are placed on the so-called "demographic peninsula" and its surrounding areas. In this sample, the proportions of settlements with high and low birth rates are (approximately) 50-50. The lowest value, 13‰, belongs to a Hungarian village Kisbajom, mostly with Calvinist inhabitants. The highest one, 57‰, can be found in Končanica in the Daruvar district, inhabited by Czech Catholics.

The demographic peninsula of Bjelovar-Križevci consists of settlements having birth rates under 35‰, making a continuous field (see 3<sup>rd</sup> map). This field includes also "transition zones" between areas with lower and higher birth rates. (It is important that in Croatia the smallest administration unit was the so-called political community, which was made by drawing together villages in an administrative sense.)



The following facts can be seen on the map.

On the one hand the zone with low birth rates does not cover entirely the area of Bjelovar-Križevci county, on the other hand it extends over that.

The geographical continuity between this zone and the settlements in Somogy county having similar low rates is slight; the two areas meet along just a short line.

Settlements having higher birth rates located along the River Drava make a narrow but continuous geographical stripe, connecting both of the banks. It means that this Croat demographic region spreads onto some Hungarian settlements.

The 2<sup>nd</sup> table contains the data of the demographic region of Bjelovar-Križevci, compared to the data of those administrative units which includes the demographic region mentioned.

2<sup>nd</sup> table: The towns and political communities of "demographic peninsula" of Bjelovar-Križevci within the administrative area and population

County	District	Administrative area		Demographic area within the admin. area	
		Political community	Inhabitant	Political community	Inhabitant
		<b>47</b>	<b>332 592</b>	<b>33</b>	<b>230 012</b>
<b>Bjelovar-Križevci</b>	Bjelovar	9	69 023	7	57 085
	Čazma	6	34 372	6	34 372
	Garešnica	5	28 256	3	13 334
	Gjurgjevac	7	53 798	3	31 398
	Koprivnica	7	41 224	6	34 809
	Križevci	7	60 056	5	35 242
	Kutina	3	23 772	3	23 772
	Other district	3	22 091	0	0
		<b>39</b>	<b>307 010</b>	<b>1</b>	<b>5 969</b>
<b>Varaždin</b>	Ludbreg	6	35 874	1	5 969
	Other district	36	271 136	0	0
		<b>70</b>	<b>265 272</b>	<b>3</b>	<b>7 966</b>
<b>Požega</b>	Novska	7	28 621	3	7 966
	Other district	63	236 651	0	0
		<b>99</b>	<b>515 014</b>	<b>20</b>	<b>88 536</b>
<b>Zagreb</b> (without the capital)	Dugo Selo	5	21 797	5	21 797
	Glina	8	44 621	1	1 986
	Velika Gorica	7	33 455	1	5 527
	Petrinja	8	37 655	3	18 323
	Pisarovina	5	22 432	1	5 352
	Sisak	9	35 551	9	35 551
	Other district	57	319 503	0	0
<b>Together</b>		<b>255</b>	<b>1 419 888</b>	<b>57</b>	<b>332 483</b>

## ETHNIC, DENOMINATIONAL AND DEMOGRAPHIC COHERENCES

Mass appearance of families with an only-child was observed at the beginning of the 20<sup>th</sup> century, first of all at the northern side of the River Drava in Hungary. Later this habit became so usual that it was the most important field of the Hungarian social researches between the two World Wars. Explanation-theories can be separated into two groups: one verified the the only-child phenomena by economic causes as estate conditions and heritage usages, the other explained it by protestant cultural traditions, adding the fact that Catholic settlements have higher fertility in general.<sup>4</sup> The results of our examination reinforce and refute the denominational explanation at the same time. For example most of the inhabitants in Bjelovar-Križevci county, Croatia, are Roman Catholics, but the county has a low birth rate. However, from the 252 settlements examined, the ten villages with the lowest birth rates have strong Calvinist majorities. The tables below show the total fertility rates and ethnic/denominational deviations among the counties examined.

<sup>4</sup> List of these theories and researches are gathered and published by Rudolf Andorka. Original version: Andorka Rudolf: A dél-dunántúli egykeutatók története. In: *Gyermek, család, történelem*. Andorka Rudolf Társadalomtudományi Társaság, Budapest, 2001. p.13-29.

3<sup>rd</sup> table: Ethnic division of the counties in Drava-region in 1910

Country	County	Total fertility rate (1910–1911)	Croat	Hungarian	German	Serb
%						
Hungary	Somogy	4.34	2.7	91.2	5.1	–
Croatia	Bjelovar-K.	4.31	76.3	4.3	1.3	13.4
	Varaždin	5.66	97.7	0.4	0.4	0.8
	Požega	5.53	53.8	6.2	5.0	25.2
	Virovitica	6.12	50.4	13.8	15.0	17.1
Region together		5.17	54.7	2.1	5.1	10.4

4<sup>th</sup> table: Denominational division of the counties in Drava-region in 1910

Country	County	Total fertility rate (1910–1911)	Roman Catholic	Calvinist	Lutheran	Orthodox
%						
Hungary	Somogy	4.34	74.8	17.4	4.9	–
Croatia	Bjelovar-K.	4.31	84.9	0.4	0.4	13.4
	Varaždin	5.66	98.7	–	–	0.8
	Požega	5.53	70.1	1.2	1.4	25.4
	Virovitica	6.12	77.5	1.9	0.8	17.6
Region together		5.17	81.2	4.7	1.6	10.5

It is obvious that River Drava, beyond its state border function, also makes an imaginary border between the Hungarian and the Croat majorities, while Serbs have a relevant presence in Požega and Virovitica counties. Concerning the denominational deviation, the region entirely has a Roman Catholic majority, but in Hungary the Calvinist, and in Croatia the Orthodox are the second largest denominations. If we look at the entire region, it can be calculated that there are no correlations between the ethnic/denominational proportions and the fertility rates. But it does not mean the shortage of correlations in the smaller areas, as it will be clear below.

The Hungarian census in 1910 gives the age-specific data of the main ethnic groups and denominations by genders on county level. By those numbers the fertility rates of these groups can be calculated, see the 4<sup>th</sup> and 5<sup>th</sup> tables below. (In parentheses the rates of those ethnics and denominations can be found of which population is under 4% within the concret territorial unit.)

5<sup>th</sup> table: Fertility rates of the major ethnics in Drava region in 1910-1911

Country	County	Croat	Hungarian	German	Serb	All of the inhabitants
Hungary	Somogy	(4.91)	4.35	3.35	–	4.34
Croatia	Bjelovar-K.	4.39	4.15	(4.69)	3.66	4.31
	Varaždin	5.59	(2.33)	(1.28)	(3.59)	5.66
	Požega	5.28	4.78	5.16	6.14	5.53
	Virovitica	6.39	4.97	5.28	6.21	6.12
Region together		5.29	4.41	4.69	5.39	5.17



6<sup>th</sup> table: Fertility rates of the major denominations in Drava region in 1910-1911

Country	County	R. Catholic	Calvinist	Lutheran	Orthodox	All of the inhabitants
Hungary	Somogy	4.75	2.91	3.68	–	4.34
Croatia	Bjelovar-K.	4.40	(4.58)	(6.95)	3.72	4.31
	Varaždin	5.54	–	–	(3.70)	5.66
	Požega	5.33	(3.97)	(6.49)	6.15	5.53
	Virovitica	6.09	(3.49)	(4.90)	6.24	6.12
Region together		5.16	3.01	(4.33)	5.43	5.17

Conclusions of these numbers are the following facts:

Catholics, being dominant in every county, and Orthodoxes, being relevant in three Croatian counties, have no constant fertility rates, but varying ones, changing in parallel with the fertility rates of each county.

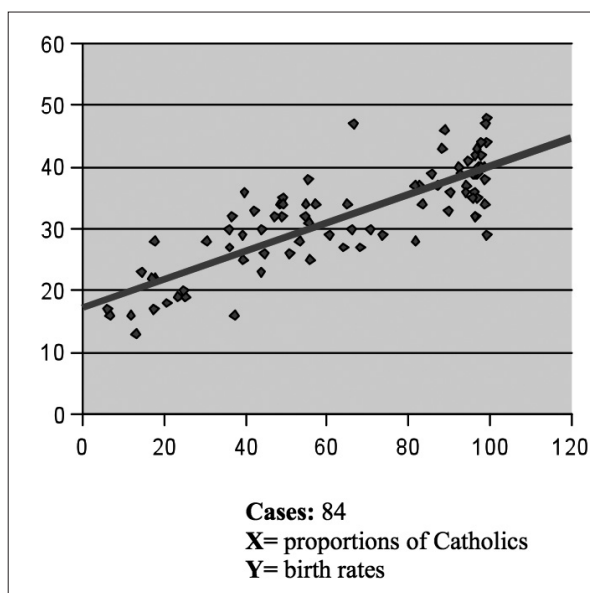
In ethnic respect we can declare the same conclusions about the Croats, Hungarians and Serbs.

The fertility rates of denominations and ethnics having slight proportions are hectic.

Moreover, there is no such rule that the reproduction of some ethnic groups or denominations should usually be higher than another's.

The statements above reinforce the fact that in the whole region examined the denominational and ethnic proportion number cannot be an independent variable in demographic respect. *All things considered the denominational and ethnic proportions can be coherent with the fertility rates in some districts, but they cannot explain the larger territorial deviations.*

Correlations between denominational/ethnic proportions and fertility are proved clearly only in Southern-Somogy county. 84 of the 252 settlements examined are located here. The table on denominations above shows that this area is populated mostly by Catholics and Calvinists, except for six villages having Lutheran absolute majorities. Below a point-diagram and its regression line indicate the correlation between the proportion numbers of Roman Catholics and the birth rates in settlements of Southern-Somogy county. (If we examined the proportion of Protestant inhabitants, we would get, of course, the reverse of this regression line on the graph.)



1<sup>st</sup> diagram: Proportions of Roman Catholics (%) and rates of birth (‰) in settlements of Southern-Somogy in 1910

Although the correlation is unambiguous, we should not suppose a direct logical connection between the Protestant cultural traditions and the aversion to childbirth. Probably the denominational status has an impact on the fertility in an indirect way: a third factor has been placed between reason and its effects within the logical chain. However, it is possible that Catholics and Protestants have different attitudes towards some economical challenges in house holdings (for instance, the division of small estates as inheritances among the descendants) and these differences manifested themselves by the deviated numbers of children. As Max Weber wrote, "...the Protestants (...) both as majority and as minority, have shown a special tendency to develop economic rationalism which cannot be observed to the same extent among Catholics either in the one situation or in the other."<sup>5</sup>

In the Croatian counties examined there are no examples of similar correlations like before. If we would like to describe the demographic features of the latter counties, our conclusions would be the following facts:

While in Southern-Somogy county, Hungary, 30 villages among the 51 settlements having lower birth rates than 35‰, have Protestant and Hungarian majority, in Croatia every settlements which have the same rates are Catholic and ethnic Croat.

The upper part of the Drava region (Varaždin and Northern-Zagreb counties) is an absolutely homogeneous area in ethnic and denominational respect, with high fertility. Settlements with higher than 35‰ birth rate have Catholic and Croat population too, proportions of them are almost 100%.

Eastern and Southern part of the Drava region (Virovitica, Požega and Southern-Zagreb counties) is a multicultural area. All ethnic and religious groups have high fertility.

As it was mentioned in the introduction, during the entire research other social facts were examined also, over the denominational and ethnic view. Although the representation of these results here is not necessary anyway, it is worth to mention that firstly two things could have impacts on the fertility at this period in the region examined. They were the proportion of literates among the fertile women in fertile age and the social conventions on marriage. Connections between the fertility and other economic or social facts (estate conditions, employment structure or attitude-transfer related to inner immigration) cannot be proved. Two reasons can be imagined as explanations: in fact there are no correlations or the data of the Census 1910 are not sufficient to prove our suppositions yet.

## SUMMARY

The aim of this research was to explore the reasons of the differences between fertility rates in the region around the Croat–Hungarian border at the beginning of the 20<sup>th</sup> century. The data applied during the examination are based on the Hungarian census in 1910. Areas having similar fertility rates are named as "demographic regions". Counties in Croatia along the driver Drava have high rates, except a "demographic peninsula", Bjelovar-Križevci county, which interrupts this geographical continuity. Bjelovar's fertility is similar to the Hungarian counties' at the opposite side of the river. During the research I examined 252 settlements, describing the exact geographical extension of the "peninsula" mentioned before, naming the concrete settlements (under 35‰ birth rate) belonging to this region.

Examination of the possible reasons of demographical differences leads to the conclusion that the denominational and ethnic proportions can be coherent with the fertility rates in some dis-

<sup>5</sup> Max Weber: *The Protestant ethic and the spirit of capitalism*. George Allen & Unwin Ltd. 1930. Translated by Talcott Parsons. p.39.



tricts, but they cannot explain the larger territorial deviations. For example, Varaždin and Northern-Zagreb make an absolutely homogeneous area in ethnic and denominational respect, with high fertility. Virovitica, Požega and Southern-Zagreb counties make a multicultural area with high fertility too. However a linear regression analysis indicates a correlation between the proportion of Roman Catholics and the birth rates in the Hungarian settlements examined.