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The demographic trends of the ethnic Hungarian population of Slovakia in light of the 2011 census to the present

Antecedents

In February 2012, the Slovak Statistical Bureau published the first results of the 2011 census. The publication had been delayed by several months, and the underlying reasons of the problem were regularly discussed by the Slovakian daily press. In fact, the Slovak Statistical Bureau also looked into the difficulties of inquiring, the expected date of the publication of the first results, and the reasons for the delay. According to the figures published, the population of Slovakia numbered 5,397,036 persons, which constitutes a surplus of 17,581 persons in comparison with the data of the previous census of 2001. In the history of the (Czecho)slovakian censuses, there had never been such a small increase in population except for the 1940s including the period of World War II. The Hungarian population consisted of 458,467 persons; that is, it decreased by 62,061 persons. Before attempting to analyse the reasons for this decline, let us briefly review the demographic evolution of the ethnic Hungarian population of Slovakia from the foundation of the Republic of Czechoslovakia to the present.

Table 1.
The number and the proportion of Hungarian and Slovak population in Slovakia, 1921-2011

Year	Total	From which Slovaks	%	From which Hungarians	%
1921	3,000,870	1,952,368	65.1	650,597	21.7
1930	3,329,793	2,251,358	67.6	592,337	17.8
1950	3,442,317	2,982,524	86.6	354,532	10.3
1961	4,174,046	3,560,216	85.3	518,782	12.4
1970	4,537,290	3,878,904	85.5	552,006	12.2
1980	4,991,168	4,317,008	86.5	559,490	11.2
1991	5,274,335	4,519,328	85.7	567,296	10.8
2001	5,379,455	4,614,854	85.8	520,528	9.7
2011	5,397,036	4,352,775	80.7	458,467	8.5

Between 1921 and 2011, the Hungarian population of Slovakia went down from 650,597 to 458,467, that is, there was a decrease of 192,130 persons or a decrease of 29.5 percent. In the same period, the population of Slovakia grew from 3,000,870 to 5,397,036, showing an increase of 2,396,166 or 79.9 percent. The demographic evolution of the Hungarian population between 1921-2011 has been very uneven.

From a demographic perspective, the changes in the headcount of the Hungarian population can be divided into three periods.

1.) Between 1921-1950, the number of Hungarians dropped. The decrease following World War I could be put down to the fact that part of the Hungarian middle class left the country, mostly for Hungary, and also that those having multiple ethnic bonds changed their ethnicity, if only statistically. What is more, part of the Jewish population was „statistically separated" from the Hungarians. During World War II and in subsequent years, trends pointed in opposite directions: in the territories re-annexed to Hungary, people with multi-ethnic bonds identified themselves, once again, as Hungarian. At the same time, the Jews deported to death camps made the Hungarian population shrink. The number of ethnic Hungarians fell most sharply in the second half of the 1940s as a result of expatriation, population exchange, reslovakization, and deportation. It is no accident that in the 1950 census, the Hungarian population numbered 237,805 fewer persons than in 1930.

2.) From 1950 to 1991, the growth rate of the Hungarian population declined with every decade. The peak growth of the 1950s can be partially explained by the high natural increase, but more importantly, to the Hungarian self-identification of the Hungarians who were formerly reslovakized. In the 1960s, the significant natural increase was also complemented by the „statistical return" to the Hungarian population of some of those re-embracing their Hungarian identity. In the 1970s and 1980s, the natural increase – now diminishing, but still notable – was greatly reduced by assimilation and ethnicity swapping tendencies. At the same time, in the period between the political changeover and the 1991 census, some of those who had earlier called themselves Slovak – mixed both with regard to their residence and age – now identified themselves as Hungarians.

3.) The third phase of the demographic evolution of ethnic Hungarians in Slovakia started in the 1990s, and it has been marked by a considerable shrinkage of the Hungarian population.

Between 1991-2001, the number of Hungarians dropped by 47 thousand while from 2001 to 2011, it decreased by a further 62 thousand. Moreover, in the latest two censuses, we had to face a problem regarding the number of ethnicities – a problem that had barely existed before. Whereas in the 1980 census and before, the proportion of people with unknown ethnicity (i.e. those refusing to state their ethnic affiliations) had been statistically negligible, this figure was 8,782 in 1991, 54,502 in 2001 (i.e. 1 percent of the total population), and 382,493 in 2011 (7 percent of the total population), respectively.

The Czechoslovakian censuses inquired not only about ethnicity, but occasionally, about mother tongue as well.[1] There is a particular relationship between the ethnicity and mother tongue data of certain ethnic groups: the proportion of the members of the majority nation is higher on the basis of ethnicity data, while the number of minority ethnicities is higher with respect to their affiliation by their mother tongue. (In other words, ethnic affiliation is considered to be a kind of „official data", especially since this question appears on various official forms, but the category of mother tongue is attributed no such role.) The proportion and the divergence of the two figures indicate the consistency of belonging to a given ethnic community. The smaller the difference between these two indicators, the stronger we consider the ethnic affiliation of the members of each ethnicity. In 2011, the ethnic Hungarian population numbered 508,714 persons according to their mother tongue; that is, their number was 11.0 percent higher than according to their ethnic affiliation. (7.5 percent of the inhabitants did not state their affiliation by their mother tongue.)[2]

In the following, we shall look at the factors determining the reduction of the Hungarian population: decrease replacing natural increase, Hungarian-Slovak assimilation trends and (hidden) migration.[3] These factors cannot always be distinguished on the level of the available statistical data. Concerning hidden migration, we can only propose some estimates.

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[1] In the years of 1970, 1991, 2001, and 2011, the census also inquired about the mother tongue of the respondants.

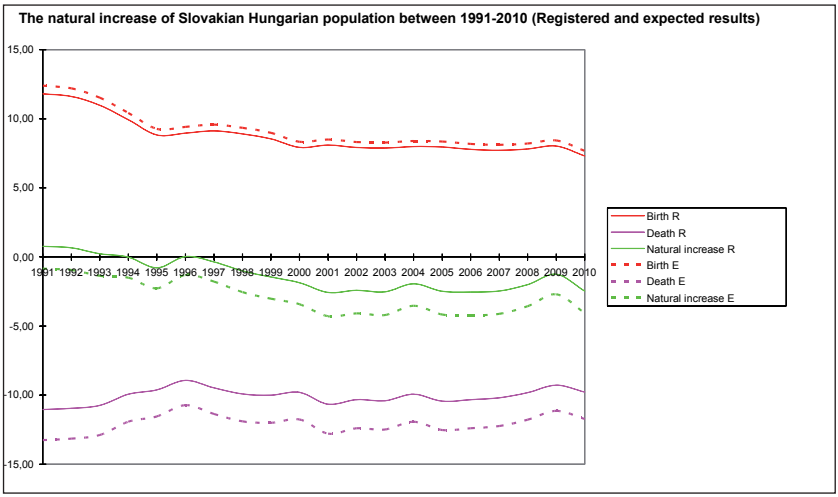
[2] In former censuses, the number of Hungarians was 7.2-10.1 percent greater according to mother tongue than according to ethnicity. The smallest deviation was observed in 1991.

[3] See *Gyurgyík* (2006)

1.) Natural increase (decrease)

First of all, let us examine the trends of natural increase and decrease of the Hungarian population. We can rely on the birth and death registers of the Hungarian population for the period 1991-2010.
The migration trends are quite different in the 1990s and in the post-millenium decade. Between 1991-2000, 54,923 ethnic Hungarian births were registered while from 2001 to 2010, their number dropped to 40,527. In other words, in the first decade after the millenium, the number of those registered as ethnic Hungarians was 26.6 percent lower than in the previous decade. The differences in the number of deaths are significantly smaller between the two decades examined. In the 1990s, there were 57,068 deaths of ethnic Hungarians registered, whereas between 2001-2010, this figure was 52,210. In both decades, the number of deaths exceeded that of births, thus on the basis of the registered data, the Hungarian population diminished by more than 2,000 persons due to natural decrease in the 1990s and by nearly 12,000 persons in the decade after the millenium.

Chart 1.



A more thorough and complex survey conducted by us earlier on the basis of district-level migration data revealed the inconsistency of the registered migration data of ethnic Hungarians in several ways.

There were significant divergences between the data regarding the total population and ethnic Hungarian population of the districts.[4] Contrary to our a priori expectations, there were major differences in the turnout of the number of deaths. As a result, we calculated the so-called estimated crude birth rate and estimated crude death rate of Hungarians by taking into consideration the age distribution of the Hungarian population. Table 1 presents the demographic evolution of the natural migration of the Hungarian population between 1991-2010 on the basis of the registered data and the so-called estimates.

The expected birth rate and death rate exceed their registered number. The difference is extremely significant, especially in the case of deaths. While the estimated crude birth rate is 1.5 percent higher than their registered number, the estimated crude death rate is 19 percent higher than the registered figure.

It can be demonstrated that in both decades, the rate of natural decrease according to the estimates was greater by about 10,000 persons than on the basis of the registered data. It follows from that that we need to revise our assumptions retrospectively, concerning the demographic evolution of the Hungarian population in the 1980s and 1990s.

Based on the registered data, the Hungarian population produced a natural increase of 437 persons in 1991, but according to the estimates, the number of Hungarians dropped by 463 persons. In 2001, the registered data revealed a natural decrease of 1,333 persons while the estimates indicated a natural decrease of 2,149 persons. In the light of all that, we have to modify our previous assumption that the natural decrease of the Hungarian population started in the mid-90s. The reduction must have begun as early as the late 1980s. Between 1991-2001, the rate of natural decrease, based on the registered data, was more than 2,000 persons.

The actual decrease, that is, the difference of births, deaths and migration, was slightly lower than that, since in the period in question, the migration balance of the Hungarian population showed an approximate surplus of 600 persons.[5] Compared to the national

[4] See: *László Gyurgyík–Tamás Kiss* (2010)

[5] According to the registered data, the actual decrease of the ethnic Hungarians was 1,520 persons between 1991-2000.

trends, the growth of the Hungarian population remains 15-20 percent below the national average. One of the reasons for this is the fertility rate of Hungarians, which is lower than the national average. The other explanation is that the overwhelming majority of the children born from interethnic marriages identify themselves as Slovak and belonging to the ethnic majority. But we shall come back to this issue when examining assimilation trends.

2.) Assimilation – ethnicity swapping

In the following, we will look at the extent to which assimilation trends have affected the demographic evolution of ethnic Hungarians in Slovakia. We will analyse Hungarian-Slovak assimilation trends from two aspects. Besides intergenerational assimilation, we will examine intragenerational trends as well.

Intergenerational assimilation trends can be mainly observed in the evolution of the ethnic affiliation of children born from interethnic marriages. According to two surveys carried out in 1998 and in 2000, children born from Hungarian-Slovak interethnic marriages do not identify themselves as Hungarian and as Slovak in the same proportion. [6] If a nearly equal number of children coming from such families considered themselves as Hungarian or Slovak, ethnicity swap and assimilation would not be significant among them. According to the data of the above mentioned surveys, 80 percent of the children born from interethnic marriages call themselves Slovak, and only 20 percent of them identify themselves later on as ethnic Hungarian. Considering that about 30 percent of Hungarian marriages are interethnic (and more than 90 percent of those are made with a Slovak partner), Hungarian ethnic fertility is significantly lower than Hungarian biological fertility.[7]

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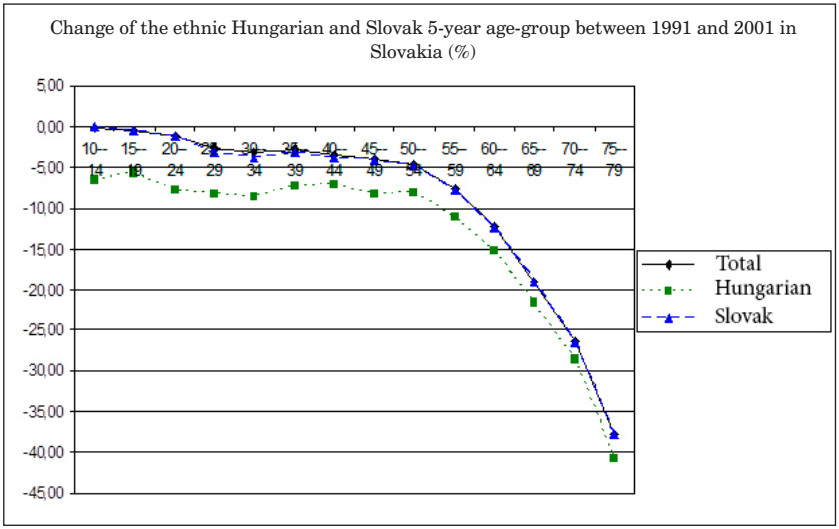
[6] See: *Csepeli-Örkény-Székelyi* (2002), *Gyurgyík* (2006)

[7] When examining ethnic fertility, we have to distinguish between demographic and ethnic reproduction. By the demographic reproduction of Hungarians, we mean the total number of children born to mothers of Hungarian ethnicity, while ethnic reproduction indicates the number of children of Hungarian ethnicity. The first figure is higher because not every child born to a Hungarian mother will eventually identify himself as Hungarian. With regards to the evolution of reproduction, we

Now let us examine how assimilation trends manifest themselves intragenerationally, in the lifetime of generations. This can be assessed on the basis of the census data with the help of the so-called age-adjusted method. We focus on the rate of Hungarian population loss assigned to each five-year age category decade by decade. Next we weight the 2001 data according to age brackets by the value of these changes.

Chart 2.



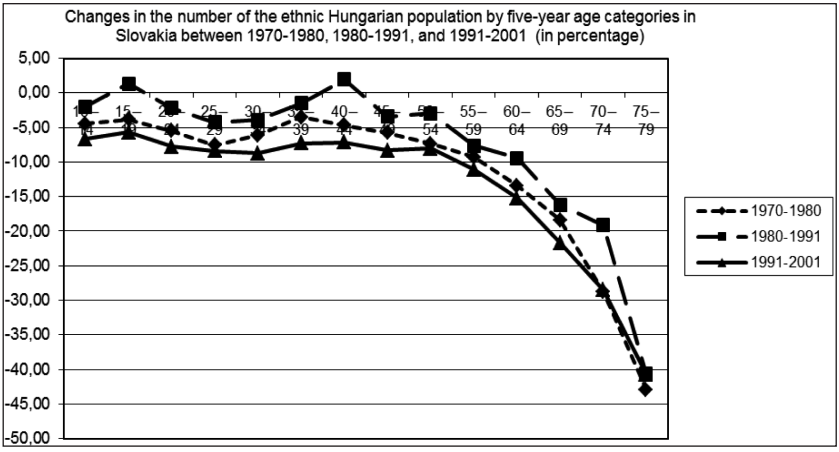
The logic of our analysis rests on the assumption that several factors can influence the number of those belonging to certain five-year age brackets in the interval between two censuses. One of the most important factors is the number of deaths, which grows towards the older age brackets, while the other factor can be explained by international migration.

It can be observed in the national data between the two censuses that there is a slight increase in the diminution of the five-year age brackets (for the most part, in relation to the age-specific death indi-

have to distinguish between biological and ethnic reproduction. Biological reproduction refers to children born to Hungarian mothers, whereas ethnic reproduction is the proportion of Hungarian births to the number of children born to Hungarian women. (*Szilágyi* 2002:71).

cators) as we proceed towards the older age categories. This increase gradually accelerates from the age brackets of 50-54-year-olds. This natural trend manifests itself somewhat differently with regards to the total population of Slovakia and the Hungarian and Slovak ethnicities. The diminution of the Slovak population by age categories is nearly identical to that of the total population. The decrease of those belonging to the five-year age brackets of the Hungarian population follows the overall national trends, but the decline of the age brackets of 10-14-year-olds and 30-34-year-olds is about 5-7% higher than the national figures. Towards the elderly age brackets, the difference becomes smaller, but the decrease of the Hungarian population continues to exceed the national figure. It is noteworthy that the decrease of the Hungarian population by five-year age brackets is at least twice as great from the age category of 10-14-year-olds till that of 40-45-year-olds than in the total population. The biggest difference between the diminution of the age brackets of the total population and the Hungarian population presents itself in the case of children and those under-18. For the most part, this marked difference is not the result of potential inaccuracy and distortion of the data, but it is a consequence of ethnicity swapping and assimilation trends.

Chart 3.



Similarly, if we analyse the data of the previous two decades, the 1970s and the 1980s, we can see that the diminution by age cate-

gory of the Hungarian population peaked in the 1990s. The loss was similarly structured, but less significant in the 1970s. In the 1980s, however, the decline was much less considerable; the population of certain age brackets even increased over those 10 years, so there was a (temporary) dissimilation for the benefit of the Hungarian population in these age categories.[8]

This positive change took place in spite of the fact that the inclusion of the Roma ethnicity in the census form had an erosive effect on the Hungarian population. In the graph presenting the data of the three decades, the youngest age brackets include the 10-14-year-olds (in 2001).

The data of those persons who were born between the two censuses are not shown by the graph because they were enumerated for the first time in the latest census.

In the 2001 census, the volume of the Hungarian 0-4-year-old population was 10.3 percent lower and that of the 5-9-year-olds was 15.6 percent lower than the number of births based on the registry of births, deaths, and marriages. The number of 0-9-year-olds went down by 2.3 percent within the total population of Slovakia.[9] Based on the analysis of the five-year age-specific data, there is a difference of approximately 26 thousand persons between Slovak population loss and ethnic Hungarian population loss (between the censuses of 1991 and 2001.) (In other words, as the magnitude of the shrinkage of the Hungarian population was greater than that of the total population, this divergence [from the national loss rate] resulted in the „statistical loss" of 26 thousand Hungarians.) This figure gives an approximate idea of the Hungarian population loss due to ethnicity swapping in the given period. However, the actual loss differs from that as a result of various, hardly identifiable distortion factors.

[8] We can take a different approach to this dissimilation as well. In the 1980s, in certain East-Slovakian districts, the 1991 census data were higher than the projected data of the Hungarian population (till 1990).

[9] In Slovakia, infant mortality rate (under the age of 1) was 0.63 percent in 2001. The mortality rate of the age category of 2-9-year-olds was a fraction of that figure.

3.) „Hidden" migration

Demographic statistics can reveal only a fraction of the migration events. The migration data of demographic statistics are unable to keep track of those people whose emigration is not registered by any administrative action.

Usually, there is a long procedure between the two end points of migrating abroad: between „presence" in one's home country and „absence" from it. It is only in the advanced terminal phase of out-migration (and even then, not every case of it) that such kind of migration can be tracked down by administrative measures. The number of those in the various transitory stages of „presence" and „absence" is quite often many times bigger than that of those who are officially registered as immigrants or emigrants. According to migration statistics, between 1991-2000, the average number of those migrating to Slovakia per year was 1,485 higher than that of those leaving the country, while in reality tens of thousands of people are supposed to have been living abroad for shorter or longer periods of time. On the other hand, there were fewer people who settled down in other countries, but did not (yet) give up their Slovak citizenship (that is, they did not apply for or were not granted foreign citizenship). These cases are not registered by the statistical registers of either Slovakia or other countries. Thus, with regards to people in the transitory stages, we do not have tangible data from national sources.

After the country's EU accession, the number of those working and studying abroad saw a sharp increase. In the years before the economic crisis (in 2007), 177 thousand Slovak citizens worked abroad.[10]

What we have at hand is a case of hidden migration. The question is what the estimated number of those Hungarians might be who have lived in a foreign country for a longer period of time and who are most likely to return only as visitors (perhaps, they have already settled down, or are in the process of doing so in another country), but who are, officially, still Slovak citizens. Since the census is carried out with the use of the self-enumeration method, a smaller fraction of the absentees are „left out" from the census. The majority of those

[10] *Jurčová* (2008):35

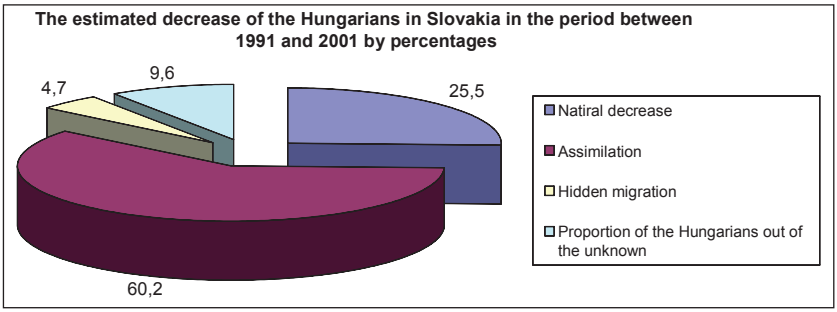
who have been absent for a long time belong to the younger generations, so chances are high that they do not own a flat, and as such, they are registered at the homes of their parents and relatives. In this case, it is quite probable that their relatives will fill in their census forms for them. There is a much greater chance that the census does not reach those who have their own flat or car.

We can assume that in the 1990s, „hidden migration" diminished the number of ethnic Hungarians in Slovakia only mildly, by approximately 2,000 people. However, in the 2011 census, the number of those who did not fill in their census form due to being absent from the country may have been several times greater than previously.

4.) The reasons for the Hungarian population loss in the 1990s and after the millenium

Regarding the 1990s, we can provide a tentative explanation for the reasons of the Hungarian population loss of 47 thousand people on the basis of the factors discussed above.

Chart 4.



In that time period, the bulk (about 60 percent) of the Hungarian population loss can be explained by assimilation trends. To a lesser extent, the unfavourable demographic trends and a more ambivalent attitude towards the census were also responsible for the decrease. Nearly 26 percent of the population loss was the result of the approximately 35 percent drop of the birth rate in the 1990s and the Hungarian mortality rate exceeding the national average. Almost 10

percent of the decline can be explained by non-response and nearly 5 percent by hidden migration.

When examining the demographic data of the post-millenium decade, or the interval between the two censuses, we find ourselves in a strikingly different situation than in the analysis of the changes of the previous decade. The interpretation of the magnitude and distribution of non-response constitutes the most significant divergence and challenge.

5.) Who are you, the unknown?

It is characteristic of the 2011 census that for certain questions, the proportion of non-response (i.e. the number of those refusing to answer a question) is very high in comparison with the census data of the previous decades. Besides the questions inquiring about ethnic affiliation and the high rate of those not disclosing their ethnic affiliation (the unknown) stood out for other questions as well.[11] The proportion of non-response was also extraordinary for the questions regarding denominational affiliation (10.6%), citizenship (7.3%), mother tongue (7.5%), the language most frequently used in public interaction (9.5%), and the language most frequently used at home (13.5%).

The high number and proportion of non-response can be put down to several factors. First of all, we have to mention the methodological specificities of the Slovak censuses. According to the former Czech(slovakian) practice, the bulk of the population fills in the census form by self-enumeration in the Slovak censuses. In other words, the enumerators' task consists of delivering the census forms to the households and collecting them later on. They can help with filling in the forms if requested. However, their task does not involve

[11] According to the published data of the 2011 census, the number and proportion of non-respondents was the following: age distribution (1,320 persons) 0.02%; marital status (101,712 persons) 1.9%; citizenship (393.100 persons) 7.3%; education (35,161 persons) 0.7%; the language most frequently used in public interaction (515,312 persons) 9.5%; the language most frequently used at home (728,910 persons) 13.5%; denominational affiliation (571,437 persons) 10.6%. http://portal.statistics.sk/showdoc.do?docid=43829

the formal verification of the forms submitted, nor can they inquire specifically about the missing data in the case of incomplete questionnaires. This was one of the major reasons for the significant proportion of non-responses to certain questions already in the 1991 and 2001 censuses. [12]

A further characteristic feature of the 2011 census is that the number of those not having filled in the form (about 70 thousand persons) was not negligible, either. The data of the missing questionnaires were generated with the help of statistical procedures. An even more important feature of last year's census data collection was that a sort of countercampaign evolved against the census. The Slovak Statistical Office guaranteed anonymity to the population. However, this anonymity was questioned by the countercampaign.

The evolution of the non-response rate regarding ethnic affiliation correlates with several other factors regarding content. Let me point out only a few of them: the size of the settlements, the ratio of ethnic Hungarians living in the settlement, and the ratio of the Romani. The non-response rate increases with the population of the settlements[13], it is directly proportionate to the number of the Roma living in the settlements, but it is inversely related to the proportion of ethnic Hungarians. (The population of the settlements is ß=0.137, the proportion of ethnic Hungarians is ß=-0.90, the proportion of the Roma is ß=0.136).

As such, the high non-response rate cannot be explained by the wavering self-identification of the Hungarian population. In consideration of the distribution of non-response by the size of the settlement and the degree of urbanization of the settlement, the number of ethnic Hungarians is estimated to be about 20 thousand higher than their registered number. At the same time, based on the data to be published at a later time, we have to take into account at least one more factor affecting the number of those of unknown ethnicity.

[12] In 1991, the question pertaining to the denominational affiliation remained unanswered by 17.4% of the respondents, whereas in 2001, 22.7% of the responses were unknown concerning the distribution by economic sector and economic activity.

[13] We could also say that those of unknown ethnicity lead to greater uncertainty in the analysis of the ethnic distribution of urban population rather than in the case of rural population. 9.7% of the urban population and 4.0% of the village population did not identify their ethnic affiliation.

In the distribution of those with an unknown ethnicity, we have to consider the composition of the population by citizenship. In 2001, the majority of those with unknown citizenship (59 percent) were non-Slovak citizens. In other words, the ratio of non-response was much lower among Slovak citizens than in the total population. Considering this last factor that may reduce the estimated number of ethnic Hungarians, we can estimate the Hungarian population at about 470 thousand persons instead of the 458 thousand persons registered.

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