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**ABSTRACT** – Hungary, belonging more and more to the prestigious group of developed countries, can be characterised increasingly by the demographic characteristics of that type. Ageing population, decreasing number of live births, decreasing population size are commonly used terms when analysing the demographic profile of our country. This simplified picture can be modulated and coloured with the help of spatial data. In spite of the comparatively small-sized and relatively homogenous structure of Hungary, several differences can be found. The network of small towns could be an obvious and representative sample for the spatial investigations since it almost totally covers the area of Hungary, it is numerous enough but still easy to handle. Within a Hungarian geographical context, settlements having a maximum of 30,000 inhabitants and possessing city rank can be defined as small towns. Because of their size and functions, small towns are sensitive enough to illustrate the national demographic tendencies, but they are numerous enough to be split into different groups according to their remarkably diverse character. Traditional historic small towns widely differ from the ones located in the rapidly urbanising agglomerations, even though the socialist new towns, having similar origin, reflect significant demographic variants.

Key words: demographic crisis, small towns, demographic types of small towns.

# The background of demographic processes and what they include

The *global problems* of human populations affect Hungary as well, but due to the special situation, here, the demographic crisis expresses itself just the *opposite way* to global tendencies. This phenomenon – being quite similar to he demographic processes of well-developed European countries, but at the same time modified by a number of locally special factors – imposes serious social-economic consequences for the present time as well as for the future.

Quite naturally, Hungary cannot liberate itself from the determining trends of the surrounding geographic space. *The population figure of the country has been decreasing since the mid-1980s*. Our history provides some explanation for such tendencies. There were severe military and civilian losses caused by the two world wars, their consequences being felt even today. The emigration wave that was created by the defeat of the 1956 revolution also has far-reaching consequences. Nearly 200,000 people migrated to the West, mostly members of the younger generation, still before founding their families (TRÓCSÁNYI, A. – TÓTH, J., 2002).

During the past 60 years, demography politics has, of course, recognized some of these problems and has also intended to treat them. Because the state system was of the dictatorial type, all sorts of possible administrative power were available to achieve this purpose. The banning of abortions as a way of birth control was only one – although quite symbolic – measure made by the so-called Ratkó-period of the late 1940s - early 1950s, named after the Minister of Health under the (early communist, Stalinist) Rákosi-regime. As a result of the drastic measures, the number of births increased spectacularly (21-23 ‰), but the 1956 revolution and then the Kádár-regime characterised by a modest consolidation, this peak died out (13-14 ‰) in a matter of a few years. Moreover, the first signs of the crisis to come later were apparent in the mid- and late 1970s, in the form of the smaller value (17-18 ‰) of secondary birth maximum, which encouraged the government to manage the

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situation by introducing social subsidies. Unfortunately, these demography political measures were felt when the generation of the former demographic peak (1952-56) reached the age of giving birth (propagative age), and birth rate would have increased anyway. These two grow effects, together with the increasing (although still low) mortality rate (10-12 ‰) were superimposed and thus created in 1981 the highest ever population maximum in the current country area (10,710,000). However, the unavoidable negative peak proved to be deeper than any expectation, and natural growth was replaced by natural population loss, which was accompanied until 1989 by moderate, yet continuous, loss caused by emigration (KOVACSICS, J., 1997).

All who had thought that the socialist regime was the primary responsible factor for the *demographic crisis*, found after 1990 that they had been wrong, because the critical values did not change markedly after the transformation of the political system. The hopelessness of the socialist system, the limited possibilities for financial advancement, and the overload of work caused by the challenges of wellness observed in the West, the resulting stress and the drugs taken as remedy, resulted in a very high number of addiction patients. This self-destructive lifestyle is clearly seen in the Hungarian mortality values; in a number of death causes, Hungarians were high up on the European list. The two-decade long erosion of the general health status of Hungarian citizens is still felt today, and the political transitions meant unwanted consequences for many people: state paternalism and the inherent feeling of security was not present any longer, and the effectiveness of the social service system declined.

In addition, those factors also started to have their effects (*second demographic transition*), which rendered natural reproduction rates negative even in developed countries (HABLICSEK, L., 1995). Among those, the most important is probably the long-term re-arrangement of social values transforming the society of communities into that of individuals. Individualisation came along with the high valuation of material advancement which effect was even strengthened by the strong expression of consumption needs that had been suppressed in the politically transforming countries. A wide space opened up allowing vertical mobility in the transforming society, most typically for young people many of whom chose career instead of family life, causing the number of single-person households to grow.

*Economic structural changes* and the accompanying structural crisis have significantly restricted socio-political possibilities that could be used by the state. The indirect demography political measures (e.g. advantageous conditions for home mortgages) were not enough to achieve direct effects – and they could not be timed properly either –, because those eligible for governmental support are increasingly difficult to identify, as the first child is born quite late sometimes. Thus, these demographic measures have "landed" on top of a prolonged, flat peak, and when it is over, the onset of an unprecedented decline is anticipated, to appear around the first decade of the 2000s.

Population (2005)	10,082,000
Birth rate (2004)	9.4‰
Mortality rate (2004)	13.1‰
Natural population loss (2004)	3.7‰
Migration balance (mean, 1990-2001)	1.7‰
Marriage rate (2004)	4.3‰
Children born outside marital relationship (2004)	31.0%
Infant mortality rate (2004)	6.6‰
Number of abortions	53,200
Life expectancy at birth (men – 2004)	68.1 yr
Life expectancy at birth (women – 2004)	76.9 yr

# Table 1. Major demographic indicators in Hungary.

Source: www.nepinfo.hu

The number of *live births* in 1990 was still 12.1 per 1,000 people, meaning a natural loss of about 2 ‰ at that time. The most serious drop occurred during that decade, birth rate dropping to just 9.5 ‰ by 2001, making up a decrease of more than 20 % during a period of 11 years. Due to the above reasons, the number of births seems to become stable at that level, with years characterised with 9.3–9.4 ‰ rates coming. Despite the advantageous changes, the current rate of live births indicates the lowest fecundity ever measured in Hungary.

The number of live births is directly linked with the decreasing popularity of *marriage*. The number of marriages has been declining for 30 years now (1976:  $10 \ \% - 2004$ :  $4.3 \ \%$ ). Whereas in 1980, 64 % of women and 70 % of men above the age of 15 were married, in 2001 these percentages were 49 % and 55 %, respectively. The number of divorces had been quite high for a long period, and is still increasing despite the fact that the number of marriages decreases permanently, reaching half of the number of marriages, meaning that theoretically every other marriage ends in a divorce. The affinity to become married has declined not only among young people who tend to marry later in their lives, but establishing new marriage bonds after a divorce is becoming less and less favoured in Hungarian society.

The decreasing popularity of marriage as a stabile background appears also in the rates of births. The proportion of children being born outside marriages is increasing: in 2001, 12 % of the unmarried women in the sexually mature age had at least one child, and in 2002, 31 % of all the children were born outside marriage. In addition, the number of births is adversely affected by the increasing age of the mother (1990: 23, 2004: 25.7 years of age) at the time the first child is born. Looking at the mean number of children per mother, it appears that the two-child model is becoming popular. This tendency could well be good news from the aspect of normal reproduction rate, was it not for this model substituting the family model with three or more children.

On the other hand, the long-term tendencies of *mortality rates* tell about peculiar conditions. The gradual decrease of mortality rate lasts until about the mid-1960s, when the trend turns around, and until the mid-1990s, a modest but significant increase is experienced, quite unusually for developed countries in peacetime. Following the lowermost points of the curve, mortality rates turn better, to about 13 ‰ in 2001 from 14 ‰ in 1990. However, these favourable processes then stopped, so that between 2002 and 2005, the values (13.4-13.6 ‰) were higher each year than the former 13 ‰. This rate represents a natural loss of about an annual 4 ‰, i.e. approximately 40,000 people.

The above demographic processes can be valued on their own, but Hungarian specialities express themselves better in an *international comparison*. As regards *birth rates*, Hungary stands as  $205^{\text{th}}$  in a list of 226 countries, only slightly lagging behind the mean value of the EU (10.0), and being ahead of both Germany (8.3 ‰) and Italy (8.9 ‰). It is quite indicative that almost all of the Central-Eastern European countries that have gone through a political transition are found in the interval between 9-11 ‰ – including the economically most successful Slovenia (8.9), as well as Poland, a country thought to be more conservative because of its strong Catholic traditions (9.72 ‰) – this fact suggesting that possible causes be sought among the common features of transformation rather than look for national specialities.

Data of *death rates* are more discouraging, almost shocking. In respect of the number of deaths per 1,000 persons, there are only 39 countries behind Hungary in the list, our country sharing figures with nations such as Cameroon, Congo, Bhutan, or Uganda. It is almost exclusively African countries that have higher mortality figures than Hungary, together with former Soviet states including Russia, Ukraine, Belarus, Estonia, and Latvia, as well as the Southeast-European country of Bulgaria. Another comparison can be made when it is regarded that the other countries in the region have values that are generally 2.5-3.5 ‰ better.

Problems reflected in mortality rates are worsened by further disparities. Life expectancy is 72 years in average, which is ranked as 104<sup>th</sup> in the global list, slightly better than the figure for Turkey or China, but much worse than the values of Oman, Algeria, Lebanon, Paraguay, or Mexico. Moreover, almost all of the countries in the region are ahead of us in this respect. There is a peculiar feature in Hungary's indicators i.e. there is a difference of 8 years between *life expectancy values at birth for males and females* (68.1 years *vs.* 76.9 years, respectively), indicating higher mortality expected for men.

In the background of these unfavourable figures, one can spot reasons such as *lifestyle*, as well as *anomalies prevailing in health services*. Preventive measures have very low efficiency rates, leading to the fact that otherwise, curable diseases turn out to be fatal in many cases. Among leading *causes of deaths*, cardiological (22 % of total deaths), neurovascular (14 %), and tumour diseases are the most important. The number and rates of suicides still remain to be strikingly high (2,800 annually), and the 1,500 road accidental deaths are also discouraging, representing an increase in numbers, contrary to European trends.

# DEMOGRAPHIC TRENDS IN SMALL TOWNS

There are several approaches in defining the term *small town*, and in separating the elements belonging to this category. One of the major criteria must be the legal status of being a town, because, as 41. § (1) of the Hungarian Constitution puts it, *"The territory of the Hungarian Republic is made up* by capital city, counties, towns and villages", showing that there is a fundamentally set difference between towns and villages. The rank of being a town meant serious advantages mostly in the socialist era, but the decentralised administrative system created by the democratic transformations gave equal rights to each kind of local government (municipality), devaluating the possession of town rank (KISS,  $\dot{E}$ , 1998). Paradoxically, it was the democratic transformation that opened up the way to the expansion of the number of towns: in 1970 there were only 76, in 1984 there were 109, in 1990 already 166, followed by a dynamic growth of 4-18 settlements declared to be towns annually, to eventually reach a figure of 289. For a settlement to be able to win the rank of a town, it had to demonstrate its social, economic and infrastructural developmental level and central role, however towns that were only recently given the rank, could meet the latter criteria only partially or in one specific field (BELUSZKY, P., 1999). Nevertheless, here we have connected the term small town to the status of being a town, irrespective of the fact whether a given settlement deserves the rank or not. The population of 30,000 individuals seems to be ideal as the upper limit of being a small town, because Hungarian settlements with larger populations are characterised by a more diverse functional composition and thus have fundamentally different dimensions (regional functions) (KÖSZEGFALVI, GY., 2004). If defined accordingly, there are altogether 250 small towns, home for a total of 2,523,000 inhabitants according to the 2001 census. This category, containing 8 % of the settlements, 86 % of the towns and hosting 25% of the Hungarian population, is representative enough for a smaller-scale analysis of nation-wide demographic conditions, and is numerous enough for local or regional differences to be well demonstrated and modelled.

Settlement category	Number of settlements	Total population of the settlement category (2001)	The population of the settlement category in % of Hungary's total population
Capital city	1	1,777,921	17.64
County-rank city	22	2,033,919	20.18
Middle-size town (inhabitants: 30,000-50,000)	17	552,466	5.48
Small town (inhabitants: less than 30,000)	250	2,517,477	24.97
Villages and large villages	2871	319,355	31.71

**Table 2.** Most important data of Hungarian settlements.

Source: Central Bureau of Statistics.

At present, the smallest member of this group is Pálháza (winning town rank in 2005), with 1,100 individuals in 2001, and there are also another three small towns with a population not reaching 2,000 individuals (Őriszentpéter, Zalakaros, Visegrád). Average population size is almost exactly 10,000, the median value being 8,337. The one-quarter share of the total population of the country is quite permanent, its maximum in the 130 year old history of Hungarian censuses reached in 2001, and

the minimum appearing in 1941 (21.9 %), followed by constant but very moderate increase. In practical terms, this means that the demographic transformations affect the level of small towns hardly at all, and the dynamics of population change are identical with those of the national whole. The number of settlements has been multiplied by 2.13 since 1870, this figure being almost identical with the growth index of the total population size (2.01) but being much lower than the population increase in larger cities (3.62) and especially in the capital (5.88).

In recent times, small towns have showed moderate growth between successive censuses, except for the 1980s ( $-4 \ \% \ / \ 10 \ years$ ) including 1990 when not only the national demographic trend was spiralling downwards, but the populations of towns also declined by 7 %, spectacularly turning around the earlier trend.

It is an addition to the overall picture that the majority of the positive trends after 1990 were caused by towns located in the rapidly developing *Budapest agglomeration*. During this decade, the studied towns of Pest county had a growth rate of 12 %, well compensating for the total decrease of 2% in the remaining 18 counties. If further spatial divisions are made, a quite diffuse picture is obtained for this decade. There is moderate growth in Fejér county as well, but the group of Vas, Szabolcs-Szatmár-Bereg, Győr-Moson-Sopron, Hajdú-Bihar and Tolna counties – being quite heterogeneous from demographic, developmental, as well as infrastructural aspects – is characterised by a moderate decline. This meant the end of the apparent trend of the previous two decades when small towns of Transdanubian counties were growing whereas those in the Great Plain region were declining or less intensely growing. It is thus concluded that factors determining spatial structure have become much more complex than a simple east *vs*. west dichotomy.

In small towns too, the 1990s are characterised by *natural population loss*. This means a total decrease of about 53,000 individuals or about 2.06 ‰ annually, which still remains well below the national average (-3.2 ‰). Both birth rates and mortality rates are slightly *better than the national figures*. 150 of the small towns have better birth rates than the national average, 90 among these characterised by a difference greater than an annual 2 ‰. The highest rate (19.5 ‰) is measured in Hajdúsámson, where regional-type (the north-east part of the country is better in birth rates) and the more recent suburban-type effects are added together. Similar conclusions are drawn in the case of Hajdúhadház too, while the rest of the leading small towns typically belong to the former type where *regional effects* are responsible for higher birth rates, especially because there is no intense immigration to these settlements (Cigánd, Dombrád, Kemecse, Encs, Putnok), as opposed to the former two. The birth rate figures of these towns are the result of the lower level of urbanisation and of the different demographic behaviour of their inhabitants (TRÓCSÁNYI, A., 1996).

Among settlements with the lowest *birth rates* (the last one in the list is Visegrád with 7.0 ‰) the most striking is the high representation of *resort cities* or settlements with touristic functions. The last 20 towns in the list include Hévíz and Harkány (both renowned for their thermal spas), and practically all of the towns along Lake Balaton (with of course Balatonfűzfő, a town still characterised by industrial rather than touristic functions). The only common feature in the remaining towns with significant negative difference is that their population size is below 10,000 individuals. They are geographically scattered, their central functions can be characterised with single-sided or weaker structure.

In respect of *mortality*, although the advantage of small towns in comparison with national figures is smaller (an average of  $0.6 \ \%$ ), 145 towns are still above the average. The difference in settlement size is striking if the top and the bottom of the list are compared: if a deviation of at least 6‰ from the national average is considered, the average population size of towns with more favourable mortality rates is 40 % higher than those in the bottom of the list (11,000 and 7,800 individuals respectively). Among the reasons, one can point out the structure of health services, which is much better developed in towns that are more populated and that used to be district centres. Apart from this, it is quite difficult to find any similarity, as, for example, the small towns that have mortality rates exceeding an annual figure of 20 ‰ are located in six different counties, and are fundamentally

different in their functions as well: Bélapátfalva belongs to the industrial type, whereas Visegrád is of the tourism type, Tokaj and Letenye are smaller, traditional market centres from the opposite end of the country, while Újszász and Dunavecse can be regarded as settlements still only taking up town characteristics. In the group of small towns in the bottom of the list with mortality rates around and below 10 ‰, Transdanubian (western) location is dominant (13 out of the first 20), and as regards their functions, the industrial type can be well identified, too (Mór, Paks, Oroszlány, Nyergesújfalu, Százhalombatta and Tiszaújváros). Towns being part of the Budapest agglomeration do not appear as striking (maybe this is the only such among the studied indicators) in either end of the list. The accelerating immigration of the 1990s, affecting the younger fraction of the population with higher social status, still cannot be seen in mortality rates of the settlements. Possibly, it is the worse mortality rates of older population that render the picture balanced in this respect.

The spatial differences in birth and mortality rates that have already been touched upon only partially repeat themselves in the figures of natural reproduction. In 23 small towns of Szabolcs-Szatmár-Bereg county and 19 in Hajdú-Bihar county, its values are positive, whereas the rest of the counties are found in the negative domain. Differences are striking in this respect and are mostly in line with the national trends: differences between the various counties and between the small towns within the county are typically not significant, although anomalies do exist here. In 17 cases out of the 19 counties, the small town average values are above the county average, the difference being significant mostly in the small village regions (those with ageing populations) (Nógrád, Baranya, Somogy, Vas and Zala counties). Besides Csongrád county, the neighbouring Bács-Kiskun county also differs in the negative direction, which can be explained with sociological, settlement spatial structural (farms), economic and migration causes. The 64 small towns that have positive reproduction rates are found in 13 counties. Among this numerous group, only 15 are found in Transdanubia, and besides the two aforementioned counties (Szabolcs-Szatmár-Bereg and Hajdú-Bihar), 9 settlements in Pest county and 10 settlements in Borsod-Abaúi-Zemplén county are also notable. There are only negatively reproducing towns in six of the counties, including all three counties making up the South-Great Plain Region. Among the absolute record holders (i.e. in the first 10 places of the list), all the settlements are located east of the Danube – the only one exception being Százhalombatta –, mostly belonging to the population range of 6,000-15,000 individuals.

As expected, if natural reproduction rates are analysed based on *settlement function types*, there is relatively high number of satellite "sleeping" towns or more industrialised agglomeration settlements found in the positive domain of reproduction rates, (e.g. Aszód, Gyál, Szentendre, Felsőzsolca, Szigetszentmiklós, Budaörs). Towns that went through the socialist industrialisation relatively later, and thus have preserved some of its dynamism, (e.g. Paks, Nyergesújfalu, Százhalombatta) are grouped within this category, just like the older industrial towns like Ózd, Putnok, Sajószentpéter or Mór. Out of the towns with more traditional, central roles and with various degree of industrialisation (those having proceeded along a "Pannonian" developmental route) proportionally there are fewer (9) in the positive domain of the scale, whereas the majority of the remaining settlements are made up by ones that have become towns only recently, being exactly in the middle of the urbanisation process.

Among towns that have *natural population loss*, one must mention almost the entire group of agricultural towns, and another class, too, i.e. the one including Transdanubian "central places" taking up the traditional small town role and values. These are two, completely different groups with entirely different developmental routes. The last ten – or even twenty – entries in the list (-6.5 - -14.5 %) contain mostly towns in the plain regions.

Values of *migration balance* create a completely different picture, with actual reproduction rates deviating considerably from what would be natural. Around 1990, a quite significant change occurred in the national trends of internal migration. Migrations caused by the artificially strengthened urbanisation process of the preceding decades came to a halt, with towns loosing from their populations and villages gaining inhabitants. This change was powered primarily by very strong

suburban processes in the Budapest agglomeration; the magnitude of migration loss in the capital city exceeded 110,000 individuals between two successive censuses. County rank towns also finished with population loss, although at a much lower rate (a total of 8,600 individuals). Small towns, however, seem to have been the beneficiaries of this process: their total increase is by more than 93,000 individuals, just slightly less than the emigration from the capital. The total immigration balance of settlements that belonged to the category of villages in 2001 exceeded 200,000 individuals, although this figure included also the data of large villages that have become towns since then.



**Figure 1.** Age structure (types) of Hungarian small towns (2001) Edited by.: Pirisi, G. – Trócsányi, A.

*Emigration* was dominant in only 3 (Baranya, Borsod-Abaúj-Zemplén and Szabolcs-Szatmár-Bereg) of the 19 Hungarian counties in the studied period. Among those with positive balance, the highest value is recorded in Pest county (with growth of more than 60,000 individuals, meaning an average growth of more than 13 ‰ in each town). The absolute record (4,336 individuals) is held by the town of Budaörs, whereas the greatest relative increase (almost 6 % per year) was recorded in Veresegyháza, in the opposite edge of the agglomeration. It is not surprising either that except for Hajdúsámson, the first 20 entries in the list are small towns exclusively from Pest county, this fact supporting the assumption that in Hungary strong suburbanisation effects appear only around cities

possessing complex regional roles. Quite unsurprisingly, the greatest population loss occurred in Komló and Oroszlány; it was only Várpalota among the six socialist new cities that could increase its population attracting capacity. In small towns located in areas that have become depressed regions due to the permanent discontinuation of industrial activities, population loss caused by emigration is always significant (TRÓCSÁNYI, A. – FORINTOS, V., 1998). Immigration to resort towns is somewhat less intense than in the previous decade, and the two classical town types (i.e. traditional small towns and transformed agricultural towns) are characterised by – although moderate – positive migration balance. Even those settlements usually have positive migration balances – in Csongrád and Békés counties – where population generally decreases, migration typically not being sufficient for fully compensating natural loss.



Figure 2. Actual reproduction in Hungarian small towns (annual mean value for the period between 1990-2001). Edited by: Pirisi, G.

To sum up the conclusions, it can be stated that the demographic conditions of Hungarian small towns, in respect of the analysed indicators, are better than national averages. The reasons are manifold, however: the after-effects of the strong urbanisation process following 1945 which have almost entirely died off by now can be seen in the relatively larger group of settlements possessing several types of central roles, as well as in the industrial, "socialist" type of towns. The process of urbanisation can be detected in the rural regions where small towns continue to represent an attractive immigration target for village people. Suburbanisation tendencies act parallel with these, but much powerfully, of course mostly in the Budapest region. Villages affected by suburbanisation dynamism are found also in the vicinity of many of the large cities, some of these villages having become small towns by now (Hajdúsámson, Sándorfalva, Szentlőrinc, Felsőzsolca).

Consequently, the overall picture is boldly heterogeneous; nevertheless, *characteristic spatial groups* do exist. Such are for example the demographically disadvantageous settlements in the south

of the Great Plain, or Northeast-Hungary where population growth is fed by natural reproduction and a moderate degree of immigration. However, in the case of Transdanubia there are no such marked, spatially identifiable groups. As far as the demography of the different functional-genetic groups of small towns is concerned, it appears that the two "traditional" groups i.e. (i) the traditional small towns functioning as classic central places (mostly located west of the Danube, in North-Hungary and in Bereg), and (ii) the transformed agricultural towns (having developed into towns in the Great Plain as settlements actually lacking true attraction zones) are both found in an unfavourable situation. The picture is more complex in the case of resort towns where natural population loss is usually accompanied by positive migration balance (immigration).

The transition towards market economy has created marked differences within the group of industrial towns mentioned earlier – also in their demographic features. Their quite specific industrial profiles greatly determined their chances for transformation: where the structural transformation has reached only the stage of disassembling earlier operational structures, the result is seen in demographic processes, especially in the form of emigration.

The most spectacular transformation on the level of small towns, however, is the intensive growth and development of settlements in the Budapest agglomeration. These settlements have low level of town characteristics, and have been given the town rank quite late relative to their size, similarly to the once extensive agrarian settlements of the Plain region that, again, quite poorly met the criteria of how a town should look like.

As the traditional central roles undergo transformation, the future development of traditional small towns seems to be uncertain. Only those of them will be able to stay on an inclining course both economically and demographically which find the appropriate reactions to the global challenges transforming settlement network in its entirety.

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