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# *Urban sprawl or/and suburbanisation?*

*The case of Zalaegerszeg*



**ABSTRACT** In the last 50 years the urban areas were expanding so fast, which lead to the decreasing of rural and the green areas of the settlements in Europe, and also in Hungary. This process is called in several ways, such as urban sprawl, suburbanisation, and peri-urbanisation of the urban-rural “fringe” as well. Although there is difference between the above mentioned concepts, but the causes and processes are not strictly separated in time and space. One of the main purposes of this study is to identify the mentioned processes in a case study of Zalaegerszeg; whether urban sprawl or a special form of suburbanisation occurs. The other aim is to define the complex definition of the above mentioned processes using qualitative indices for Zalaegerszeg.

To identify the various impacts of the growing urban areas a literature analysis was made and orthophoto maps of 2000 and 2014 were conducted. The purpose of the latter was to show the disappearing green areas and growing urban structure due to the sprawl. During 14 years of urban changes 21,8 hectare green and agricultural area disappeared in the area of Zalaegerszeg.

The second part of the study is based on the results of a questionnaire survey made in Zalaegerszeg to analyse if the urban sprawl and periurban growth within the city boundary is a result of concentration process caused by immigration from rural neighbourhoods or is it a relative deconcentration caused by the outmigration from the city centre. According to the results, urban sprawl is mainly caused by suburban motivations, like changing lifestyle, demand for better environmental setting. The decentralisation process to the outer districts of Zalaegerszeg (former independent villages) results social fault lines within the “natives” and the new suburban immigrant inhabitants. There are differences in social status according to income, education and working position. The study concludes that in Zalaegerszeg the urban sprawl occurs within the city boundary for suburban reasons. According to our analysis, although statistically the process is not suburbanisation, the motivation behind actually is.

**KEYWORDS** urban sprawl, Zalaegerszeg, suburbanisation, rural-urban fringe

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**Introduction**

Zalaegerszeg has fragmented spatial structure due to its historical development. Several settlements were attached to the city during the last hundred years. Nowadays, Ola, as the first municipality attached to the city is a part of the centre not like the others, where the urban continuum is disconnected. Those parts that were attached later are located several kilometres away from each other and from the downtown which are connected through roads. The fragmented structure (Figure 1) results extensive urban area and an even more complex social structure.



FIGURE 1 ❖ Zalaegerszeg, a merged city. Former individual settlements with their connection dates. Source: KSH. Edited by Tamás Hegedűs, 2015.

It's a contradiction in the case of Zalaegerszeg that the population of the city has decreasing in the last 25 years, but the built-up urban area is continuously increasing. Another contradiction that the population decrease is not a general feature for the whole settlement, whilst the former municipalities in the past 20 years showed growing population. New real estates, leisure and industrial areas are appearing further from the centre in the attached villages, mainly along the main transport routes, on former

arable and forests, reducing green areas (Figure 2) but within the city boundaries. Some of these land use changes were planned while some were uncontrolled and unplanned.

The expanding urban area brings up problems earlier not experienced regarding the infrastructure, services and social needs etc. There is a growing demand towards recreational, entertaining possibilities, more extensive public transport network, road network, cultural institutes.

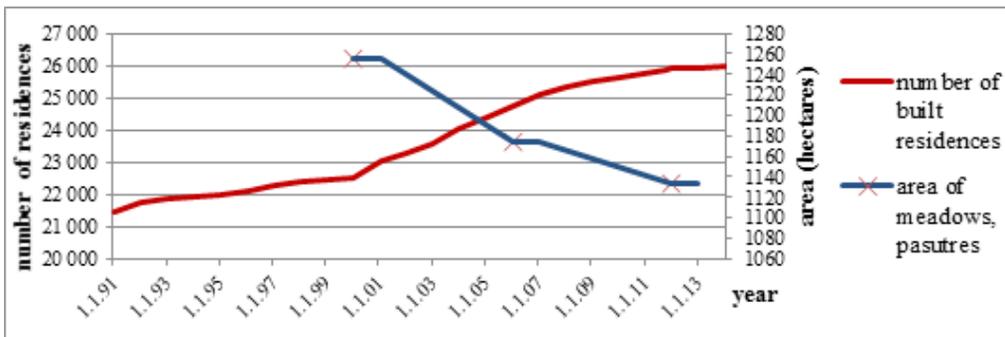


FIGURE 2 ❖ The change of numbers of the built apartments, and the size of the fields and pastures in Zalaegerszeg in between 1990 and 2014. Source: KSH, TEIR. Edited by Tamás Hegedűs 2015.

There is a duality within the society in the newly evolved urban areas, the native inhabitants – those people who were born on the settlement or moved there before the 1990's, and the people who moved there after the transition with suburban characteristics regarding the demands of urban services. A dual image has formed in the urban landscape and structure as well. The houses and streets of the “natives” and the “suburbans” are separated in space and their appearance is also different.

These processes can be referred as urban sprawl or suburbanisation. The question may arise if these processes differ from each other in sense of place and time in the case of Zalaegerszeg. These processes are rooted deeply in the inherited spatial structure and the land use policy of socialist era, which influenced these processes through the legislation on small garden zones.

## 1. Theoretical background

Several authors interpreted urban sprawl differently; whilst certain researchers do not distinguish the concepts of the suburbanisation and urban sprawl (e.g. MIESZKOWSKI–MILLS 1993; BENFIELD–RAIMI–CHEN 1999; BRUECKNER 2000; CATTAN 2011; REEH–ZERLANG 2011), Hungarian researchers (BAJMÓCY 1999, 2000; DÖVÉNYI–KOVÁCS 1999; DÖVÉNYI 2009; HARDI 2002, 2010; TIMÁR 1999; LAMPL 2010; ZUBRICZKY 2010; CSANÁDI–CSIZMADY 2002) separate conceptual and methodological differences between the two processes. The term “urban sprawl” is usually used for the quick increase of the urban area which comes with land use change (FRUMKIN, H. 2002). For example, more than 200 settlements in the Parisian metropolitan region consumed more than 10 000 hectare of space in 26 years after 1988 (CATTAN 2011). While the “built-up” area is horizontally expanding, the population density is decreasing in these areas, which leads to significant change of the land use of the surroundings under specific market circumstances (EEA 2006). There are cases when even the gross population of the settlement is decreasing while the urban space extends. It is the case in Cleveland, United States where the population decreased by 11% but the urban space expanded by 33% (BENFIELD et. al. 1999).

In Europe, urban growth has always heavily depended on the population growth, however nowadays social mobility, individual needs and the economic development became determinative for spatial growth (BOROS–GARAMHEGYI 2009, EEA 2006) which started to intensify in the 1950's (SCHWICK et al. 2011). In Europe the space for urban growth is limited, which means that the importance of the agricultural and green areas is more significant (EEA 2006).

In the literature the concept of urban sprawl, it is mainly approached from a statistical point of view – which cannot cover the causes of the process. NANCY CHIN (2002) sums up the various, but mainly quantitative aspects of urban sprawl. She clustered definitions into four groups: form, land use, impacts and density. To decide which sprawl definition is adequate and suitable, it is recommended to define the context of the process, which can be reached via unveiling the causatives. At this point the concept of suburbanisation connects to the concept of sprawl as one of the main causative for urban growth.

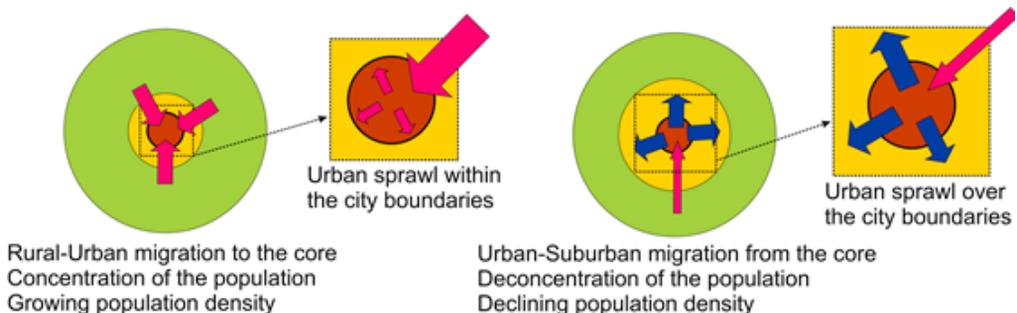
In the most of the cases, suburbanisation refers to the population growth and urban sprawl over the administrative boundaries of the city. In some cases, urban sprawl was identified as suburbanisation in the early researches (SELF 1961; GOTTMANN–HARPER 1967; GOTTDIENER 1977; HALL 1997). The urban sprawl within the city boundary is simply urbanisation. Suburbanisation is mostly, but not exclusively considered as the outmigration of the population to

the neighbouring settlements of the city. Therefore, the ‘classic’ definitions of suburbanisation itself refers to a migration process (TIMÁR 1999; DÖVÉNYI-KOVÁCS 1999; BAJMÓCY 1999, 2000; CSANÁDI-CSIZMADY 2002; HARDI 2002; DÖVÉNYI 2009; 2010; LAMPL 2010; ZUBRICZKY 2010;) coinciding with urban growth and land-use changes called urban sprawl (MIESZKOWSKI-MILLS 1993; BENFIELD-RAIMI-CHEN 1999; BRUECKNER 2000; CATTAN 2011; REEH ZERLANG 2011).

From an other point of view, suburbanisation also can be considered as a qualitative marker, a driver for urban sprawl, which shows particular needs, lifestyle and social structure. Thus, urban sprawl is a result of the spread of suburban lifestyle, in the same time it does not mean, that other reasons (counter-urbanisation, re-urbanisation) cannot result urban sprawl.

The most commonly accepted drivers for suburbanisation – and thus reasons for sprawl – are the ever-growing demand for calm, nature-close environment and in the same time the need for abstaining from noisy and heavily polluted downtown, the post-industrial economic and social changes resulted appearance of the wealthier middle class, easier commuting, spreading ICT. These factors all contributed in the growth of the suburban area (EEA 2006; MIESZKOWSKI – MILLS 1993; FRUMKIN 2002). The intensification of the phenomenon resulted that the population of suburban areas in the USA more than doubled from 20% to 50% since 1950 (SZIRMAI 2011). If we accept suburbanisation as a qualitative phenomenon it means a suburban lifestyle with specified needs for the environment and services as well and which results residence changes. But residential changes are not always connected to the crossing of administrative boundaries of the cities due to suburban reasons (KONDOR-SZABÓ 2007; SOMLYÓDYNÉ PFEIL 2010; HARDI 2010). Neither suburbanisation nor urban sprawl means just the expansion of residential areas, but industrial parks, leisure centres and shopping centres as well (SALAMIN et al. 2009; SZIRMAI 2011, Koós 2004).

The problem occurs when geographers try to separate urban forms and drew parallel to compare Hungarian and foreign processes. In several cases suburbanisation was identified as a statistically measurable process. As it was mentioned above, several authors identified the urban sprawl with suburbanisation, while others refused this approach. If we think about urban sprawl as the growth of the urban area it can occur during all the urbanisation phases (Figure 3).



**FIGURE 3** ❖ *The urbanisation cycle's first two phase, urbanisation (concentration of the population) and suburbanisation (deconcentration of the people). Edited by Gyula Nagy 2015.*

The question may arise if it is necessary or even possible to separate firmly urban sprawl and suburbanisation. In the literature the concept of peri-urbanisation refers the urban growth in the edge of urban and rural areas. According to GOLLEDGE (1960) and LOW CHOY – BUXTON

(2008) main features were defined of the evolved urban sprawl. The most important factors are the fast change in land-use, mainly occurring in residential areas, selective immigration to lower density areas, segregated settlement structure, incomplete public services and institutions, and commuting.

## 2. Hungarian aspects of urban sprawl and suburbanisation

Most of the Hungarian authors define the first phase of the urbanisation with a massive urban sprawl and population concentration and the suburbanisation as the population increase in the neighbouring settlements of the centre while in the same time population is deconcentrated and the centre's population decreases (BAJMÓCY 2000; TIMÁR J. 1999) (Figure 4)

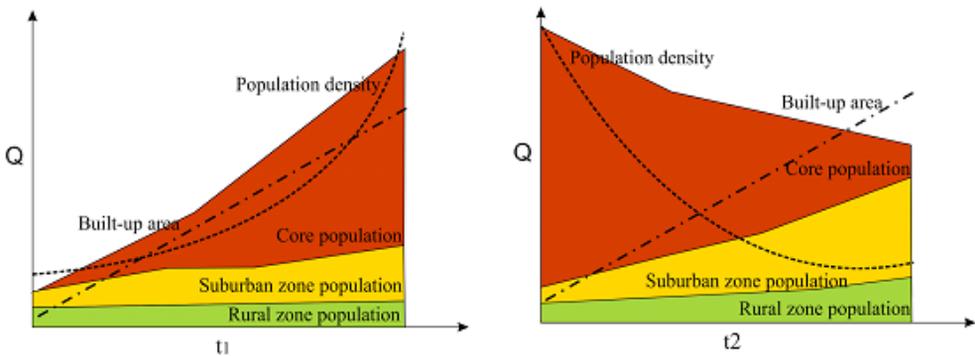
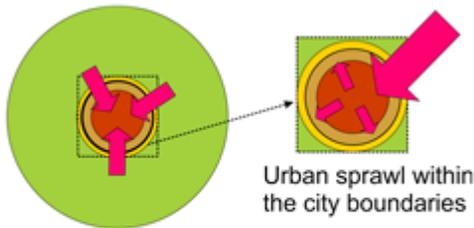


FIGURE 4 ❖ *Population, density and built up area growth during urbanisation (left) and suburbanisation (right). Edited by Gyula Nagy 2015*

This process appeared after the regime change in Hungary, during the post-communist era (BALOGH 2013). In the 1990's, approximately 30 Hungarian cities had suburban features at that time. Initially, mainly the regional and middle-sized cities showed the phenomenon (DÖVÉNYI 2009). If the population grew around big cities and the city suffered from population loss, the process was considered as suburbanisation. If there was lack of population growth around the city, it was stated that there is no suburbanisation in the region.

On one hand, the specific historical features of Hungarian cities such as designed green belts and garden zones within the boundaries, breaks within the continuum of the urban areas due to forced settlement merging during the socialist era and the lack of infrastructural development around the cities. These features were partly against suburbanisation. People did not have to migrate through city boundaries since there was plenty of space within to move (Figure 5). On the other hand, the transition and the neoliberal change in the market economy changed the consumer preferences and therefore the lifestyle of the people (BOROS–HEGEDŰS–PÁL 2010, NAGY–BOROS 2010).



Rural-Urban migration to the core  
Huge and designed administrative territory  
Periurban small garden zone  
Concentration stagnation of the population

FIGURE 5 ❖ Suburban drivers drove urban sprawl in the small garden zone of a Hungarian settlement. Edited by Gyula Nagy 2015

The motivations of the suburbanisation were investigated by several Hungarian researchers (BAJMÓCY 1999, 2000; BENFIELD-RAIMI-CHEN 1999; DÖVÉNYI-KOVÁCS 1999; TIMÁR 1999; HARDI 2002, DÖVÉNYI 2009; 2010; LAMPL 2010; ZUBRICZKY 2010; CSANÁDI-CSIZMADY 2002), many of

them concluded that the main factors for suburbanisation are the same than in the previous international experiences show, but the need for an own property also plays an important role.

As a result, suburban drivers caused urban sprawl within the settlement boundaries, the settlement's population was slightly declining or stagnating, but the built up territory grew and the population density declined in the same time. This process combines the features of the urbanisation cycle's first two phases (Figure 6).

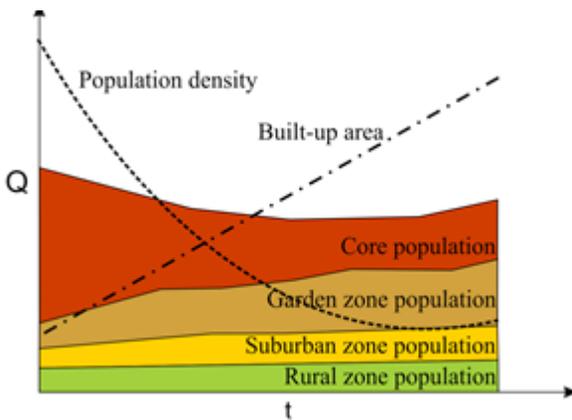


FIGURE 6 ❖ Population, density and built-up area changes in the Hungarian context after the transition. Suburbanisation within the city boundaries on the fringe. Edited by Gyula Nagy 2015

Zalaegerszeg's administrative boundaries have changed just slightly in the last decades, however the formerly hobby garden belt around the city built up quickly at the expense of the green areas. In Hungary, small garden zones were designed on purpose around the city, close to the city border in the „urban-rural fringe”

during the socialist era. House owners used these small lands for agricultural purposes, which they could use up for catering and trading, often they were used for holiday resorts. In the beginning of the 2000's, several cities with small garden belt reclassified these areas into residential areas and a fast suburbanisation started but within the city boundaries (BOROS 2009; PÓCSI 2009). For example, in Zalaegerszeg at Neszele, Ságod, and Kaszaháza, they created construction areas with the size of approx. 2000 m<sup>2</sup>. In case of Zalaegerszeg we can talk about a dramatic change, especially in case of Ságod, Kaszaháza, and Neszele parts (Figure 7). Comparing orthophotos from 2000 and 2014 it is evident that the agricultural area became a residential housing zone. Furthermore, entertainment and recreational areas also appeared. These areas became favourable for those young and wealthy families, who still would like to stay near the city centre but wishes calm and quite, rural environment (PÓCSI 2009).



FIGURE 7 ❖ *Neszele in 2000 and 2014. Source: Mayor's Office, Zalaegerszeg. Edited by Takács Ferenc, 2014.*

The specific legal characteristic of the Hungarian small garden belt delivered a “prepared” target for suburbanisation but inside the city boundaries. Since administratively, families stay within the city border from a statistical view it is not considered as classic suburbanisation, however the motivation is suburban.

### 3. Data and methods

To examine the land-use changes and the decreases in the ratio of the green areas and cultivated lands in favour of the settlement due to urban sprawl orthophotos and public utility maps from 2000 and 2014 were analysed. The chosen sample areas were three formerly independent and then incorporated settlements, Neszele, Kaszaháza, and Ságod, which are now within Zalaegerszeg’s administrative limits.

In order to investigate the motivations social, economic, and infrastructural factors were also analysed with questionnaire survey. The survey took place in Kaszaháza, Neszele, Ságod from August 25 to August 29, 2014, after the orthophoto analyses were made. The chosen settlements are the ones which showed the most significant increase in housing stock out of the 14 former

municipalities (Neszele, Ságod, Kaszaháza, Andrásida, Bazita, Ola, Zalabesenyő, Csácsbozsok, Pózva, Ebergény, Szentersébethegy, Botfa, Nekeresd és Bekeháza). The aim of the survey was to get information on the economic and social reasons behind the migration processes and on the problems of these special inner suburbs. The sample was divided into two parts, the locals, who can be labelled as “native” inhabitants and the new residents, the “suburbans” who moved in after the economic and politic transition started in the 1990’s. Nagypáli as a neighbouring real suburbia of Zalaegerszeg was chosen on comparison reasons.

Systematic sampling method was applied, with the sum of 60 questionnaires, the sampling units were the households. Altogether 20 houses out of 59 at Neszele, 16 out of 38 at Ságod, and 14 out of 55 at Kaszaháza were surveyed. In Nagypáli 10 households were queried. The selection of the new residents, the in-moved families was easy in Nagypáli, since a whole new settlement part was built due to suburbanisation. In those places, where the suburbanisation process was not so obvious, an empirical observation was made on the houses. We examined the appearance of the houses and the gardens, the vehicles around. The newer houses with newer and/or more than one vehicles were considered as homes of suburban immigrants. Later the questionnaire has proved that real suburban population lives there.

In Nagypáli, Neszele, Kaszaháza and Ságod nearly every working-age person in the household were asked about their occupation and level of education, altogether 181 answers from the collected data was available to analyse. The small sample number may seem to be quite few for the first sight, however the numbers of the total households in these settlement parts are small as well – which means that we had a 25-42% survey ratio. Since questionnaire had been done at a suburban settlement, Nagypáli which is not connected to Zalaegerszeg, we questioned if there are some kind of similarities between the real suburban population of Nagypáli and the people in the urban sprawl within the boundaries of Zalaegerszeg.

Three main components, namely social status, conflicts, and the driving forces of the moving were defined to cluster the inhabitants whether they are suburban or not (Table 1).

Social status	Conflicts	Driving forces of moving
<ul style="list-style-type: none"> <li>- Income of the whole family</li> <li>- Income per person</li> <li>- Income for one person compared to the living wage</li> <li>- Number of cars</li> <li>- The purpose of use public transport</li> <li>- Job type</li> <li>- Highest level of education</li> </ul>	<ul style="list-style-type: none"> <li>- The existence of contact between the different featured households</li> <li>- The willingness of getting to know each other between the in-moving and native inhabitants</li> <li>- The existence of different way of life</li> </ul>	<ul style="list-style-type: none"> <li>- Why did the in-moving people choose the current place</li> <li>- Why do the surveyed persons like or dislike in living in the current part of the city</li> <li>- Wherein changed the quality of their lives after the moving</li> <li>- Which environmental aptness's became better and which of them became worse</li> </ul>

TABLE 1 ❖ Key components of the suburbanisation examined in the survey.

The first component of the criteria-system is the social status, since suburban migration is a typical movement of mainly the middle and upper classes in the current case, according to literature. There is also a feature in the several Eastern European countries called the suburbanisation of the poor – but since it barely involves new urban development and sprawl, it is not taken to consideration in this study. The social status was constituted by the values of income per family, the income per person, and the income compared to the minimum living costs defined

every year by the Hungarian statistical office. In some cases, the respondents refused to answer the question on income. The willingness to answer the question was the lowest in the households with larger property and visible (recognised by the researchers) wealth in the household (fine art on the walls, home equipment, higher number of cars).

Analysing transport habits, for example the number and ratio of the cars in the households, the frequency and aim of using public transport can provide information on suburban reasons. According to the literature families with higher social status rather use cars instead of the cheaper bus transport which doesn't meet with their individual needs. Correlation is calculated between the number of cars and the income, assuming that people with higher income also have car. The modes of transport from the workplace to home, the rate of commuting features are also important factors of suburbanisation.

Occupation and the highest level of education are also important factors defining suburban population. The higher level of education and mainly white collar occupations are usual feature of suburbans.

It was also analysed if the suburbans have conflicts with the natives, if they have contact. The different aims, attitudes of certain social groups often cause conflicts if the social production of urban space (BOROS – TÓTH 2007). From those who don't keep up the contact with different social groups (native inhabitants, and newly in-moving people) whether they would like to get to know each other or not. Are the newly in-moving people sharply separated from those who lived in the settlement already before the regime change? Is there any kind of dualism and contrary observable at the settlements, which comes from lifestyle, behaviour, and different habits?

Finally, the third main component for suburbanisation definition, the driving forces and the background of residential changes were examined. What were the motivations of the moving, why the inhabitants like to live on the current settlement? Are the people who move to Ságod, Neszele and Kaszaháza similar to each other in their motivations? Did any kind of changes occur on the environment and on the availability of the services, during the moving out? What became better or worse in the life of the moving out people during changing their residence?

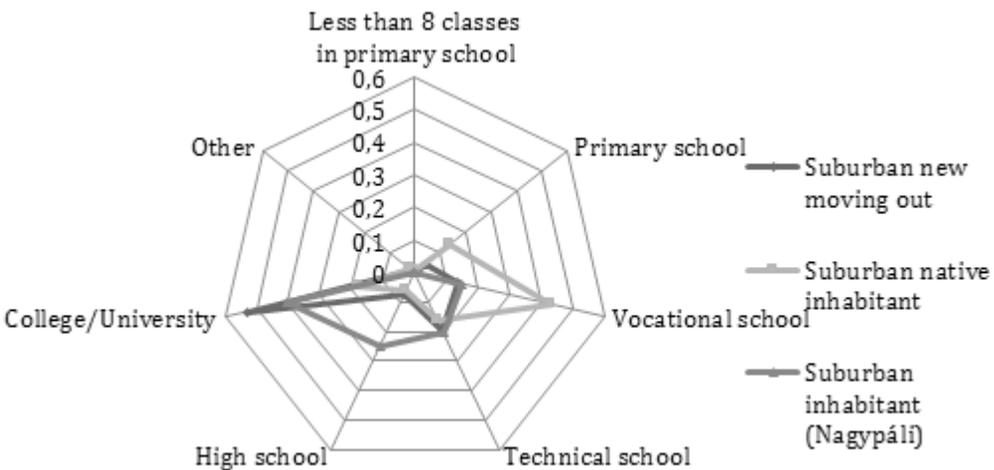


FIGURE 8 ❖ Education level of the three different social groups (natives, suburbans and garden zone suburbans)

#### 4. Social status

One of the factors in social status is the level of education. Based on the answers of Neszele, Ságod and Kaszaháza, and the answers given by the actual suburban population in Nagypáli, it can be stated that the majority of the surveyed families has college or university degree. At the same time, the most dominant within the native population is vocational education. The mean age of the suburban population and the new inhabitants of the sample area is lower, than the average, and the native inhabitants are older and have lower education level (Figure 8).

Analysing income levels, three groups can be defined. Whilst the average income of the households of the native inhabitants is 143 700 Forints (49 answers), the average 288 600 Forints in the group of the newly in-moving people (30 answers), so it's as almost twice than the income of older inhabitants. The income of the households in Nagypáli is 505 000 Forints (but it is based only on 10 answers). If we examine the income per capita, smaller difference can be seen between the suburban-like and the locals like the respondents in Nagypáli. The income can be misleading without the other indices of the family. In the case of the natives, the survey showed 27,3% of retirement rate and households with the average size of 2,1. Meanwhile the same indices are 3,2% and 3,5 among suburbans (Table 2).

	Indigenous	Suburbans (average)	Suburban (Nagypáli)
Income per households	143 700	288 600	505 000
Income per capita showed in the % of the national minimum cost of living	72%	86%	173%

TABLE 2 ❖ *Per capita income expressed in percent of the living wage, source: questionnaire, Edited by Tamás Hegedüs 2014*

The type of occupation is another indicator besides the education and income which can also indicate the social status. The major part of the suburban population in Nagypáli, Ságod, Neszele and Kaszaháza work in intellectual and leader intellectual positions (Table 3).

Occupation	Natives	Suburbans	Suburban (Nagypáli)
Workingman	47,5%	17,5%	21,6%
Intellectual employee	10,1%	52,4%	41,4%
Leader intellectual employee	7,1%	14,3%	10,5%
Student	1,0%	1,6%	0,0%
Retired	27,3%	3,2%	0,0%
Housewife	3,0%	3,2%	0,0%
Entrepreneur	3,0%	7,9%	21,1%
Unemployed	1,0%	0,0%	5,3%

TABLE 3 ❖ *The distribution of the occupation of the native inhabitants, the population moving in after 2000, and the suburban population, among the answering people. Source: questionnaire, edited by Tamás Hegedüs 2014*

The native inhabitants use public transport in greater share than the in-moving ones, although both groups expressed about their dissatisfaction about the public transport. According to the answers, the main problems are with frequency and the availability of the bus stops and

relatively expensive ticket prices. The new residents rather choose the car as transport mode, and they wouldn't change this habit even if the public transport was better organised. They simply consider the car as the optimal and most comfortable mean of transport. Four-fifths of the new residents of Neszele, Ságod and Kaszaháza never use public transport or only in rare occasions. In the case of the native inhabitants, only the one-third of the respondents told that they never or usually don't use public transport, and one-fifth use public transport for commuting to work. In Nagypáli none of the respondents use public transport. Examining correlation between income and use of public transport the  $r$  value is  $-0,8198$  – i.e. with the increase of the income the willingness for using public transport decreases significantly. The suburban population and the new residents almost never use the public transport. So the surveyed population of Nagypáli and the three suburban sprawls are similar in their transport decisions.

Based on the answers from the new residents and the suburban settlement, each family owns a car. The per capita car ratio per household is 1,05 for the native inhabitants, 1,80 for the newcomers, and it's 1,88 for Nagypáli's suburban population. So, taking into consideration the income indicators, the education, the transport habits, the occupation type, and the number of the cars, it can be stated that the in-movers to Neszele, Ságod and Kaszaháza differ from the native inhabitants in sense of social status, but the people of the typical suburban settlement (Nagypáli) are even wealthier so the three settlements' population forms a transition group.

## 5. Conflicts and the duality of local society

Besides the social status, the conflicts and parallel lives between the native inhabitants and newly in-moving people are often mentioned in literature. As it turned out in our research, original inhabitants of the study area do not see the presence of newcomers as sources of conflicts.

To analyse social cohesion, we asked if the neighbours help each other when it's needed and if so, what kind of activity it is. Answers, like working, caring of each other's property, borrowing tools from each other, caring of each other's children when needed, but the most frequent answer was that the neighbours can count on each other in any kind of help. But as it had been mentioned earlier, the new residents live separately, so neighbours meet only people from the similar social group.

However, the locals would not like to get to know the new residents better. The native inhabitants see newcomers as some kind of rich persons from other social strata. At least four different households in Ságod mentioned that the new residents people always buy more expensive products in the local shop, and the native inhabitants think that this is a way to show off they financial superiority. At the same time, it's important to mention that the two-thirds of newcomers would like to get to know the native inhabitants better, whilst only the half of the native inhabitants would like to familiarise wit new residents. The newcomers who are younger, are also more open-minded about making new contacts than the original population.

A kind of a dual identity can be observed about the native inhabitants and about the newcomers, too. There was a question about the identity whether they feel themselves Zalaegerszegian or they rather feel that they belong to the current settlement part. Only 21% of the native inhabitants gave the answer that they feel themselves Zalaegerszegian, whilst almost 76% of the people moving in after 2000 told that they feel themselves rather Zalaegerszegian and no Neszelian, Ságodian, or Kaszaházian. The division between the two groups can be divided in identity as well. The results strengthen the conclusions of debates which state that there is lack of local identity within new residents of a suburban area.

## 6. Driving forces of moving

From the end of the 1960s to the 1990s there an immigration wave took place into the study area, however the mass population growth and urban sprawl started in Neszele, Kaszaháza, and Ságod, after the 2000s.

Both groups (the old locals and new residents) like to live in the current settlements because of the same reasons: the calm and quiet environment, the good community life, the natural environment and the proximity of the city centre (Figure 9).

Analysing the motivations of the resident change almost all of the new residents have chosen the destination area because of the reasons why they like to live here, the amenity of the settlement, like the quiet, closeness to nature, calm environment, the demand for detached family house, and the affordable construction plots. The new residents after the 2000's in the study area and in Nagypáli usually left block flats and apartment houses to improve their quality of life. This also backs the assumption, that the residents of the study area moved because of suburban reasons.

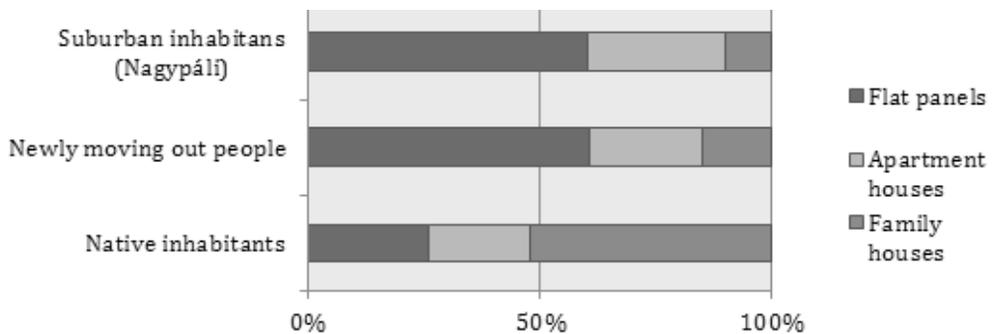


FIGURE 9 ❖ *Types of previous real estates, source: questionnaire, edited: Tamás Hegedüs 2015*

The size of the green areas, the quality of the environment, the neighbourhood contacts, the condition of the residential building, and the quality of life clearly improved in the case of immigrants, however the availability of the public transport, kindergarten, school, hospital, and the general practitioner changed towards a negative direction, so these had a better availability at their earlier neighbourhoods.

## Conclusions

One of the main question of the paper was that how the processes in the urban-rural fringe zone of Zalaegerszeg defined. Is it simply urban sprawl or is it suburbanisation? Are there differences between the attitudes and characteristics of new residents inside and outside the city boundary? According to the survey results in Zalaegerszeg the observed processes can be considered as a suburbanisation driven urban sprawl within the administrative boundaries. The existence of the conflicts specific to the suburban settlements is obvious between the newcomers and the native inhabitants. The people moving into Zalaegerszeg's settlements are the participants of the suburbanisation considering the qualitative approach of the process. The population moves

from the core settlement to the formerly independent, peripheral settlements, which are parts of the city nowadays. At the same time, their workplaces don't change due to the migration. The major driving force of spatial movements is the suburban lifeform and the connecting needs. However, because the moving people don't cross city limits, they don't increase the population of other settlements in the vicinity. The destination area of the moves is at the area of the urban-rural fringe, small garden-zone, agricultural lands are getting to built-in, removing the green areas and the environment being under agricultural tillage.

This special form of suburbanisation requires a complex statistical and qualitative investigation. At Zalaegerszeg suburbanisation and urbanisation phases are occurring at the same time. The increase of the built-up areas is more intense than the increase of population, thus the urban area expands horizontally. The outmoving population almost entirely moved from the city centre to the garden zone. As a result, while the total population of Zalaegerszeg decreases, population concentration occurs at the suburbs and the population of the downtown decreases.

The Hungarian literature often considers the suburbanisation as a statistical demarcation, saying that it is suburbanisation only when the movers cross the city limit. Our study shows that aside from the quantitative data, a qualitative analysis of suburbanisation is needed. Furthermore, the aspects of scale (BOROS 2010) should be also considered in the analyses; the administrative subdivision of space is only one type of spatial arrangement and the rigorous application of administrative boundaries in the interpretation of spatial processes can be misleading. \*

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