



*Urban Decline within the Region. Understanding the Intra-regional
Differentiation in Urban Population Development in the Declining Regions
Saarland and Southern-Limburg*

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Summary

Introduction

While there are many cities and regions across the Western world that have experienced population growth over the past decennia, there are also cities and regions that are going through a transition from population growth to decline. Often, these cities and regions also experience economic decline, which together contributes to a decline in the level of liveability. This process of demographic and economic decline is called urban shrinkage or urban decline.

There are two gaps in our understanding of urban shrinkage. The first gap relates to how the shrinkage process unfolds, more specifically, how economic and demographic development affect each other over time. There is limited empirical evidence into this shrinkage trajectory. The first research question in this dissertation addressed this process: how does the process of regional decline unfold over time?

The second gap relates to the explanation of the intra-regional differentiation in population development. Shrinkage does not just occur in a specific type of city or region, but also occurs in cities and regions of various sizes, locations and character. In some declining regions, population size declines in all cities and villages, in other regions there are still some cities growing amidst otherwise declining cities: there is, in other words, a certain level of intra-regional differentiation in population development. The reason why I use the term population development instead of urban decline or shrinkage is because I do not want to exclude a priori those growing cities that may still exist in a region. The central question is how this intra-regional differentiation within a declining region can be explained.

For the first research question, I used a time series analysis of demographic and economic variables in order to scrutinize relations between these variables, possibly with a time lag. I analysed three Dutch shrinking regions: Zeeuws-Vlaanderen, Southern-Limburg and East-Groningen. For the second research question, I used both quantitative and qualitative methods. This analysis focused on two similar declining regions: Saarland and Southern-Limburg. The quantitative analysis consisted of regression analyses of demographic variables and a variety of variables expressing local characteristics, and regression analyses and crosstabs of migration determinants (living preferences, resources, opportunities and constraints) of Dutch households (also itemized to the level of Southern-Limburg). These quantitative analyses were supplemented with a qualitative analysis, which assisted in interpreting the findings of the quantitative analysis. For this purpose, a total of 50 interviews were conducted with representatives of municipalities, the regional administration, real estate brokers, regional geographers and regional historians in the two regions.

Theory

Chapter 2 is a theoretical chapter which discusses the concepts of and explanations for urban decline and urban shrinkage and it addresses the usability of these explanations for explaining inter-regional (differences between regions) and the intra-regional (differences within regions) differentiation in population decline. This resulted in the formulation of a conceptual model. The explanations can be consigned to three theoretical approaches: the structural-economic, the institutional and the behavioural approach.

This conceptual model explains differences in decline between *regions* by the degree to which higher level processes are 'filtered' through the specific spatial and institutional context. A common higher level process affecting cities and regions in the Western world is the process of deindustrialisation. The degree to which such a process actually affects a particular region and possible subsequent out-migration depends on the spatial and institutional context: for example, other cities in the vicinity with different economic structures could potentially compensate for the employment losses in the industrial city (the spatial context) and the government could attempt to protect the industries or alternatively stimulate economic diversification (the institutional context).

Structural-economic and institutional arguments are often used to explain inter-regional differences. A second factor that is often mentioned in the European, and, in particular, the German shrinkage literature, persistent natural decreases caused by chronically low birth rates in relation to high death rates.

However, this is not the entire explanation, as we still encounter differences in levels of decline between cities located in the same spatial and institutional context. In the literature the most common explanation for this differentiation is behavioural: scholars point out the importance of residential mobility and living preferences (leading to suburbanization) as the main cause of intra-regional differentiation in population development. However, this explanation is not sufficient either, as there are still differences between suburbs, between core cities and between rural villages. The model explains these differences by adding the local context, which comprises local amenities, housing market structure and quality, attractiveness of the housing environment, the image, etcetera. These local characteristics are partly fixed and partly alterable by local political actors. The degree to which these actors are able to act again depends on the supra-local institutional framework (with its legislative regulations and distribution of roles and responsibilities). In sum, to explain intra-regional differentiation, behavioural and institutional explanations matter in particular.

The process of urban shrinkage

In the three most prominent Dutch shrinking regions Zeeuws-Vlaanderen, Southern-Limburg and East-Groningen it was investigated how the process of urban shrinkage with its economic and demographic developments unfolds over time. The variables included were natural increase, net migration and total population development. The economic variables were the development of employment, unemployment, labour population and labour participation. These were measured each year over the period of 1990-2010. Since these three regions are all located in the same supra-local institutional context, the effect of the spatial and local institutional context could be analysed.

The time series analyses showed that the relationships between the economic and demographic variables and the way that these variables affected each other over time differed between the three regions. One cannot therefore speak of 'the' shrinkage trajectory. There were three remarkable findings. Firstly, the relationship between economic and demographic development was not the same in the three regions: in Southern-Limburg, net migration was already negative during the period that employment was still increasing. In East-Groningen and Zeeuws-Vlaanderen, on the other hand, the relationship between migration and employment was positive, as expected. Net migration dropped as soon as job opportunities started to decline. The explanation for this deviant development in Southern Limburg was a mismatch between the characteristics of the labour population and the type of employment.

The second finding was the importance of specific regional conditions. These conditions were not identified with the time series analysis, but were extrapolated via an additional literature study. In the case study regions, these conditions were, among others, specific regional reproductive behaviour (leading to high or extremely low birth rates), a municipal reorganisation causing job loss and the opening of the Westerscheldetunnel, which increased the spatial scope of commuters considerably and probably lessened the need to migrate.

The third finding was that the impact of the border is varied between and within the three regions. There was indeed cross-border exchange in terms of migration and commuting in all three regions. However, the direction of these moves differed: in Eastern-Groningen, the migration flow consisted primarily of Dutch households moving to Germany, in Southern-Limburg, the migration flow alternated in direction in different periods of time and Zeeuws-Vlaanderen was attracting Belgians. The explanations for these differences were sought in the characteristics of the area just across the border: the larger the differences, the larger the attraction or repulsion. In this respect, the decisive factors were the pressure on the housing market, the quality and pricing of dwellings, subsidization schemes and employment.

The shrinkage process therefore encompasses more factors than simply employment and migration. Moreover, specific regional conditions such as reproductive behaviour, cross-border migration and commuting, housing market developments also play a role.

The intra-regional differentiation in population development

The model presented in chapter 2 offers a solid footing for addressing the intra-regional differentiation in population development in two declining regions with a similar economic-historical and spatial profile: Saarland and Southern-Limburg. Both regions are former coal mining regions and they experienced severe economic restructuring after the closure of the mines. They are also both border regions, peripherally located in respectively Germany and the Netherlands and both have a similar type of welfare regime. Choosing two regions with a similar institutional and spatial context, which are affected by the same higher level process of structural economic change, increases the possibility of discerning a local effect contributing to the intra-regional differentiation.

The case studies showed that current population development can only be understood by taking into account the development of the past. Three phases in which different processes influenced the intra-regional differentiation in population development were discerned. The first phase is the *phase of economic boom*, which took place between 1900 and 1958 and which was interrupted by the crisis of the 1930s and the World Wars. In this period, the mining (and in Saarland also the steel industry) grew exponentially, as did the population in those cities and villages located in the mining basin. In addition, the post-war baby boom contributed to population growth in this period. Even though the increases in birth rates (number of births per 1000 persons per year) took place throughout the entire region, the effect of this increase was still intra-regionally differentiated, as the population was considerably younger (with more fertile women) in the mining municipalities than in the non-mining-municipalities.

The years between 1960 and 1985 covered the *phase of economic bust*, which was sparked by the increasing import of cheaper coal from other continents and the discovery of the gas field in Slochteren. In Southern-Limburg, mining was closed down altogether in the period 1965-1975. In Saarland, on the other hand, an attempt was made to continue coal mining in order to safeguard a minimum level of domestic energy supply. Mining was heavily subsidized here. At the same time, the number of mines was reduced as was the number of miners. An economic restructuring policy was launched in both regions. However, this policy was only successful in some parts of the industrial core areas, which contributed to an increasing gap in both economic and demographic development between different parts of the regions. Nonetheless, this did not yet result in full-blown population decline in those unsuccessful restructuring areas, as the population was still growing thanks to large birth surpluses of the previous period. A second process that started to play a role in this period was suburbanization. This was the first time that migration decisions were not entirely based on economic considerations, but also on living quality considerations. A third process was the sharp decline in birth rates due to the advent of the birth control pill and changing values concerning family formation and living arrangements.

The third period covered the *phase of post-restructuring decline*, which was effective since the end of the 1980s until now. One of the most important factors explaining the intra-regional differentiation in population development was the spatially differentiated death rate, which were the highest in the mining municipalities. Death rates were particularly high in these municipalities as a consequence of the skewed age composition: the large cohorts that were young during the economic boom period reached the last stage of their lives towards the end of the 20th century. This is what I call a ripple effect from previous developments. The situation was aggravated by a lack of immigration because of the unfavourable economic situation. In Saarland, a second factor was the outmigration of young people, especially those aged 25-35 years who could not find suitable jobs after graduating. In Southern Limburg, the group comprised, in particular, 18-25 years old who left the region for educational reasons.

The border location was a factor too. Although it was expected that the border effect would impact at regional level only, the analyses showed that the border impacted, in particular, at local level: the municipalities

located directly at the border experienced a higher level of cross-border migration and commuting than the other municipalities in the regions. Saarland experienced intensive cross-border migration and commuting from both Lorraine (which attracted Saarlander because of its cheaper housing supply) and Luxembourg (which offered employment for Saarlander while Saarland at the same time offered cheaper housing for Luxembourgger). In Southern-Limburg, similar spatially differentiated border effects were found. In particular, Kerkrade and Vaals attracted large numbers of German households in the 1980s and 1990s because of the cheaper housing supply and the premie-A subsidy (which was also available for Germans). German families moving back in the 2000s – because of children leaving the house and the levelling out of housing price differences between the German and Dutch side of the border – contributed to population decline in those municipalities. At the border with Belgium also housing prices-induced cross-border migration took place. Recently, however, both Belgian-Dutch cross-border migration have decreased as the differences in dwelling and land prices slowly level out.

Even though international migration has been an important factor for explaining the spatial differentiation in population development, the analyses of Southern-Limburg showed that intra-regional migration might have been even more important. The WoOn-data revealed that the moves were spurred predominantly by life course motives, that is changes in the stage in the life cycle in which a household is in. The preferences determining the relocation decision were the type and size of the dwelling and the quality of the neighbourhood. These factors resembled the factors mentioned by respondents in growing Dutch regions. A specific regional trait was the importance of the type of the dwelling and the quality of the neighbourhood (slightly more important in Southern-Limburg than in growing regions). Furthermore, respondents in Southern-Limburg less often found the preferred dwelling in the preferred town, which was caused by a lack of dwelling in general (meeting the preferences of the inhabitants) and a lack of elderly apartments in particular. It seems that both a composition effect (the relative older population has different preferences) and a regional effect (the mismatch between the structure and quality of the housing market and demand of the regional population) were taking place.

It is thus important where those preferred dwellings are located within the region, which emphasizes the importance of local and regional housing market policy and historically grown housing market structures. The spatial distribution of housing was especially in Saarland a regional matter: the Land determined where and how much housing construction was allowed. In both regions, the number of vacancies jointly determined these housing quotas. In particular, municipalities with a high percentage of vacant owner-occupied dwellings experienced difficulty in addressing vacancies and therefore felt they could hardly implement active housing market policies.

Furthermore, local political actors can contribute to the development of their municipality. In Saarland, the mayor, in particular, was mentioned as a dominant political actor, as he/she can, for example, negotiate the regional housing market politics to a certain extent. In Southern Limburg, on the other hand, the importance of the aldermen and city council is emphasised in particular. A problem here is the occurrence of micro-politics in some municipalities, meaning city council members are often primarily interested in defending the interests of the village they are from rather than the interests of the municipality as a whole.

Conclusion

This research demonstrates that understanding the causes of intra-regional differentiation in population development requires the inclusion of both regional and local level developments. The differentiation is the result of the interaction between these different levels.

Structural-economic and institutional factors are important drivers of the process of shrinkage. An important difference with the prevailing views on the self-reinforcing process of growth or decline is the importance of natural developments (in terms of births and deaths) and the importance of specific regional conditions. Because of these specific conditions, there is no such thing as a uniform shrinkage trajectory. One should therefore be aware of these regional singularities. A disadvantage of time series analyses is that the relationships found are not always easily explained. In such cases, an additional study in the region is required to explain these relationships. Furthermore, the in-depth regional studies of Southern-Limburg and Saarland showed

that we need to look back further in time to understand the current processes of decline. Using a longer period in the time series analysis would have provided insight into the period of bust, but also the period of boom.

The explanations offered in the literature for intra-regional differentiation in population development were inadequate. In the two regions under study, a variety of structural-economic, institutional and behavioural characteristics contributed to the intra-regional differentiation in population development. Although it was expected that structural-economic factors would impact predominantly at regional level, these factors had a spatially differentiated impact at local level too. It also became apparent that birth- and death rates were highly correlated to economic development and thus to spatially differentiated population development. It was similarly expected that local political actors, in particular, would contribute to local developments. However, the analyses showed that besides the local actors the supra-local institutional context also (or even more greatly) determined these local fortunes. Examples were national and regional housing market policy, as well as taxation- and subsidy schemes.

The importance of behavioural explanations for intra-regional differentiation, more specifically the preferences, resources, opportunities and constraints of households, increased over time. The literature generally focused on the lack of jobs as cause of inter-regional migration, and suburbanization as cause of intra-regional migration. Firstly, the study showed that intra-regional migration was more important than inter-regional migration. Secondly, there are many more different types of intra-regional moves than the simple core city-to-suburb move mentioned in the literature. There are criss-cross intra-regional moves between cities, between suburbs, between rural villages and any possible combination of the above. It is largely the same motives and preferences that steer the residential mobility flows within a shrinking region as those in a growing region. Consequently, future shrinkage research should also take these 'alternative' migration flows within the region into account.

The analysis of the WoOn-data offered a first attempt at unravelling the residential preferences, resources and constraints of households in a shrinking region. Unanswered is the question whether there are differences in these preferences, resources and constraints between households in the various cities in the region. This data is necessary for formulating housing market policies that are directed at offering the residing households in the region a dwelling that meets their preferences and resources best, so that they at least will not leave the region because of a lack of suitable dwellings. However, such a policy needs to be coordinated at regional level, in order to prevent inter-municipal battles over inhabitants.

This research shows that the process of shrinkage and the intra-regional differentiation in shrinkage is the result of a much larger set of processes and mechanisms than is assumed in the general shrinkage literature. It is not just a matter of population decline due to persistent negative economic development, or because of suburbanization. It is rather the concerted action of several structural-economic, institutional, behavioural and local processes and characteristics: the location vis-à-vis employment areas, historically grown spatial structure, (changes in) the spatial distribution of employment and dwellings and the degree to which this distribution meets the preferences and resources of different types of households, local and regional housing market policy, housing market- and taxation regulations, local actors such as the mayor and council members and the quality of the area in terms of dwelling- and living environment. Moreover, these processes do not need to be occurring in the present, as shrinkage may also be the result of a process that occurred in the past and that is having ripple effects on population developments decades later. This means that in shrinkage research more attention should be paid to these different levels of analysis and time frames. Additionally, we should not search for unique 'shrinkage'-explanations only, but rather consider the general mechanisms behind differentiation in growth as possible explanations too.