1. Introduction
1.1 Motivation

In 2008 it was announced that 57 houses were about to be demolished in the rural village of Ganzedijk, The Netherlands. This meant that most of the houses in this village in the far Northeast of the Netherlands would disappear; an unprecedented situation in a country that had been enveloped in finding solutions for an ever-expanding population since WWII. The news attracted much media attention and, although the housing that was about to be demolished was eventually refurbished, brought the topic of population decline to the forefront in the Netherlands. In other European regions population decline had already been the reality for several decades (e.g., Amcoff 2006, Cawley 1994, Gauthier 1993, Muilu & Rusanen 2003, Spengler 1979). Now there were apparently also regions in the Netherlands that were facing depopulation.

That the population of several regions in the Netherlands had been declining and was expected to continue to do so in the coming decades was nothing new for some. In 1996 the Dutch Demographic Society had already organised a conference on population decline (Dykstra & Van Wissen 1996). Ten years later, Derks et al. (2006) warned policy makers that populations of rural areas in the Netherlands were about to decrease considerably. This urged Van Dam et al. (2006) to write an extensive report about the causes and consequences of population decline in The Netherlands. They concluded that the magnitude of the decline was not as great as in other countries. Moreover, the spatial effects of population decline were expected to be limited, and population decline was thought to predominantly have a reinforcing effect on already existing societal change. Nonetheless, they made clear that on the local level population decline could affect the housing market, quality of the living environment, and the availability of facilities and services. In the years thereafter the national government took action. In 2009 a commission was appointed by the national government to further analyse population decline in selected regions (Dijkstal & Mans 2009). This commission confirmed the finding by Van Dam et al. (2006) that population decline in general is not a great problem. However, it also identified specific
regions where population decline was substantial and structural, and something had to be done.

Population decline in the Netherlands has thus far manifested itself predominantly in regions that are furthest away from its economic centre in the West. North-Netherlands is one of these more peripherally located regions where population decline has occurred over the past decades. It is also a region with the lowest address density in the Netherlands, making the decline of the population in this region principally a rural affair. Parts of North-Netherlands have been designated by the national government as ‘top’-declining regions, where population decline is already experienced, and ‘anticipating’ regions, where the population is expected to decline in the near future (Rijksoverheid et al. 2012).

North-Netherlands is the most rural region in the Netherlands (Haartsen et al. 2003), but hardly compares to other rural regions in Europe in its rurality. From any village in North-Netherlands it is possible to travel to the Dutch capital Amsterdam within three hours. Regional urban centres can be reached from almost everywhere within half an hour, which is in many rural parts of Europe the time it takes to get to the next village. North-Netherlands is therefore classified by the OECD as an ‘intermediate region’ (Brezzi et al. 2011). Neither urban nor rural, these regions look like rural areas but are close to urban centres so that inhabitants can easily use their benefits. In that way North-Netherlands compares to other European regions such as parts of the English countryside, and the ‘rural’ areas of North-France, West-Germany and North-Italy. One-fifth of the United States also classifies as an intermediate region.

The decline of the population in North-Netherlands can be considered to be modest when compared to other declining regions in Europe. As a matter of fact, the total population of North-Netherlands was still growing up until 2012 (Statline 2015). This growth mostly took place in urban areas, especially the university-hosting city of Groningen. In the more peripheral areas the population has been declining for some time. For instance, the NUTS-3
region Delfzijl and surroundings experienced its first decline in the early 1980s and has lost 15% of its population since then. Once the scale level is lower, the decline is stronger. If the city of Delfzijl is considered by itself, a decline of about 20% is observed since the early 1990s until 2016, and the population of the neighbourhood Delfzijl-North has decreased by over 40% since 1995.

The designation of areas in North-Netherlands as either declining or ‘anticipating’ regions by the national government, acknowledges the fact that they deserve special attention in dealing with issues that are often related to population decline (Haartsen & Van Wissen 2012). These issues include: empty housing, lower housing prices, fewer employment opportunities, and a loss of facilities (Van Dam et al. 2009). However, the nature and context of these associated problems differ between localities. The closure of a supermarket might for instance do more damage to a village when it is the last service closing and no substitutes are available within reasonable distance, than when many other services are still present and another supermarket can be found in the next village or nearby city. The first empty derelict home in a village might be an eyesore, but if the majority of homes in a street are deserted it becomes a problem. Researchers in the Netherlands therefore advised that the spatial problems in declining areas had to be dealt with on a regional or even local scale (Van Dam et al. 2006, Bureau PAU 2012).

Within declining regions a large variation in population change exists between settlements. Although these regions might experience an overall decline of their population, declining villages can be located right next to growing ones (Bontje & Musterd 2012). Such local heterogeneity within declining regions has even been observed in notable declining regions such as the Great Plains in the United States (Cantrell 2005). It makes one wonder why, when regional circumstances are the same, some villages thrive, while other shrivel. In the Netherlands, Van Dam (1995) therefore already suggested to further investigate population change on the local level. Thus
far however, knowledge on why some villages grow, while neighbouring
villages decline remains scarce.

It has long been established that the “principal determinant of population
change at a local scale is migration” (Lewis 1979, p. 101). Migration is
typically defined as moving over long distance, and this type of moving
certainly has an impact on population change in rural villages. However,
within rural North-Netherlands, most moves do not occur into or out of, but
within the region (Bijker & Haartsen 2012). It is therefore likely that these
intra-regional flows can be decisive in the population change of rural
villages. Milbourne (2007) finds it “surprising that more has not been said
about these more local migrations” (p.385). In addition to this, Stockdale &
Catney (2014) emphasise that migration research has paid less attention to
the influence of local circumstances on migration and how such influences
may play out differently over the life course. So, whereas it has been advised
that the problems that occur because of population decline should be dealt
with on the local level (Van Dam 2006, Bureau PAU 2012), little is known
about how the local circumstances influence population change on this level.

Population decline in the Netherlands occurs at a time when governments
have been moving towards a ‘big society’. This means that government tasks
have been shifted downwards; i.e., former national government tasks have
become the responsibility of local governments, and former tasks of local
governments have become the responsibility of citizens (Kisby 2010, Patty
& Jonhston 2011, Putters 2014). In this new society, local governments
appeal to citizens for contributing to their local living environment. In other
words, villages and their inhabitants have to become increasingly self-
reliant. If self-reliance in villages is to be effective, there has to be a certain

There are two major approaches to social capital. On the one hand there is
the approach of Coleman (1988), who sees social capital as a resource of
individuals who gather social contacts. Putnam (1995, 2000) on the other
hand, places social capital within communities, where people come together
to interact. When inhabitants of villages tap into the communal social capital of village life to increase their individual social capital, while at the same time providing input to the communal social capital, the two approaches come together. Population decline could harm both individual and communal social capital. This could happen for instance when specific categories of the population disappear from villages, or when opportunities to meet for the remaining villagers become scarce. This would undermine the government’s new policy direction, which demands increasingly self-reliant citizens.

1.2 Research aim and research questions
The objective of this research is to gain more insight into flows of movers on the local level in areas where the population declines and into people’s experiences of population decline on the local level. It does so by analysing flows of movers to and from rural villages in North-Netherlands, but also by investigating in which ways people experience population decline and how they deal with it. Four research questions are addressed:

1. To what extent are people more likely to move out of a rural village where the population has been declining, than out of a village where the population has been stable or growing?
2. How can we classify villages based on net settlement of different age categories and to what extent do village characteristics influence the net settlement?
3. To what extent does the absence or closure of a primary school influence inward and outward flows of families with school-aged children?
4. How do adults with young children experience population decline and how do these experiences influence the communal social capital of a village and the individual social capital of families living in the village?

The study adds to the sparse literature on the influence of village characteristics on migration behaviour and flows of movers. Policymakers
can use this as input for improving their planning strategies, because it provides insight into what does, and maybe even more crucial, what does not influence the volatile flows of movers of different ages in declining regions. Furthermore, this study also adds to the literature by showing that social capital in villages is certainly influenced by population decline. Before providing a short overview of the chapters in this book, the relation between migration and population decline and heterogeneous attractiveness on the local level is discussed.

1.3 Migration and population decline
Although population decline in the Netherlands also occurs in some urbanised areas, it is predominantly a rural affair. This can partly be explained by continuing urbanisation. Year after year, mostly young adults cannot resist the lure of the cities. Some just move for the excitement that can be found in urban areas as compared to the relatively uneventful life in villages (Brandes 1975), but most young people make the rural-urban move as part of a strategy that will increase their human capital. Their move is motivated by the prospect of education and employment opportunities that cannot be found in rural areas. From that perspective urban regions serve as an escalator region for those attempting to climb the social ladder (Fielding 1992). In some cases people step off the escalator and move back to the rural areas from whence they came, but often not until later life.

People also move from urban into rural areas. As the comprehensive literature on counterurbanisation shows, a group of people is actually attracted by the same aspects of rural life that are found relatively uneventful by those who leave; space and quietness (e.g., Halfacree 1994, Steenbekkers et al. 2008). This relates to the dominant understanding of counterurbanisation that middle-aged middle-class groups move from urban to rural areas in search of the rural idyll: peace, quiet, safety and the prospects of intimate village life (Halfacree 2008). However, more recent research diversifies this image of counterurbanisation by showing that other motivations for moving, such as being close to family and friends, and cheap housing, apply to less popular rural areas (Bijker et al. 2012).
(2014) adds to this that the traditional understanding of counterurbanisation may only be relevant to a small part of urban to rural migration, by providing evidence that the younger age groups also participate in counterurban migration flows.

In many rural areas in the Netherlands the size of the influx of people is insufficient to counter the outflow of others. In former times, relief from such negative net migration was found in high levels of fertility. From the Second World War up to the 1970s around three children were born per woman in the Netherlands. However, societal change brought secularisation, individualisation, an increasing role for women in society, and the introduction of the contraconceptive pill. Often understood as the second demographic transition (Lesthaeghe & Van de Kaa 1986), the changes resulted in a drop of period fertility rates below replacement level during the 1970s and have stabilised at around 1.7 children per women for the last few decades (Billari 2005). Given the above, it is unlikely that the number of children and young adults in rural areas of the Netherlands will increase anytime soon, making population decline in rural areas the reality for at least the coming decades (Haartsen & Venhorst 2010).

The selective migration flows also strengthen the processes of dejuvenation and ageing. Migration flows strengthen dejuvenation, which is caused by lower fertility rates, in a direct way because young people move out, and an indirect way because the departed young adults start their reproductive careers in urban instead of rural regions. Ageing is partly the other side of the same coin; caused partly by increasing life expectancy, the share of older people increases because the number of young people decreases. Moreover, life expectancy has been increasing. Many rural regions in North-Netherlands are thus faced with declining populations that contain fewer children, and more older people than before.

1.4 Heterogeneous attractiveness of rural villages
The population developments sketched above provide an explanation for population decline in rural areas, but are insufficient to explain the
differences in population change between villages within these areas. To understand why these differences exist, the local circumstances need to be taken into account when considering why people move into or out of rural villages (Stockdale & Catney 2014). Traditionally, explanations for moving behaviour have focused on the availability of jobs. Rural villages have however evolved from being autonomous villages, where the village provided in jobs and all of the other inhabitants’ needs, to residential villages, where the large majority of people commutes to nearby urban centres (Thissen & Loopmans 2013). Other village characteristics that might attract or repel people are often referred to as amenities, a term which has been described as “pleasant living conditions” (Ullman 1954, p. 119).

Many aspects of the living environment can be considered amenities, such as scenic beauty (McGranahan 2008, Argent et al. 2009), services (Dustman & Okatenko 2014) and accessibility (Gkartzios & Scott 2009). However, the importance of specific amenities depends on the different needs of people. For some it might be more pleasant to live close to services, while others prefer to live close to a forest or even a train station for commuting. As the needs of people differ over the life course, age is likely to be a determinant of which amenities matter. For rural villages this means that their specific sets of amenities could influence the inward and outward flows differently at different ages.

Population decline is sometimes understood as being part of a downward spiral. The idea is that population decline leads to a decline of jobs, services and quality of the living environment. This might motivate people to leave or refrain from entering a declining area, causing more population decline, which puts even more pressure on jobs, services, and the quality of the living environment (Myrdal 1957). Cases where population decline depresses the regional economy and the depressed economy inspires more population decline have been well documented in literature (e.g., Glaeser et al. 1992). Much less is known about self-reinforcing processes on the local level, or, to what extent population decline in villages influences an intermediating source that inspires more population decline. On this local
level population decline and amenities might reinforce each other, for instance when local services close, or when the local housing market is disrupted because of lower housing values or a decline in the quality of the housing.

1.5 Research outline
The research questions presented above are addressed in the next four chapters of this book. The first research question is answered in chapter 2 and focuses on individual migration decisions. It aims to find out whether population decline on the village level is self-reinforcing by analysing to what extent preceding population decline at the village level has an effect on the probability to move out or within the village. The analysis distinguishes between people of different ages, education levels and occupational statuses. Moreover, a multinomial regression model is estimated that differentiates between moves over different distances. In this chapter it is revealed that a preceding decline of the population in a village increases the probability to move out of the neighbourhood, but that this effect differs between categories of the population and between the distances of the moves.

To gain more insight into population change of villages, chapter 3 analyses flows of movers in villages in rural North-Netherlands. It focuses on how net settlement of different age categories in villages is influenced by the attractiveness of a village, which answers the second research question. The attention is confined to net settlement in this chapter, because that determines the population change of different age categories in villages to a large extent. Using different age categories provides the opportunity to find out to what extent some villages are more attractive than others for people of different ages, and which village characteristics influence these differences in attractiveness. In this chapter the villages are first clustered by net settlement of different age categories to get a broader understanding of settlement patterns of villages. In the second part of the chapter linear regression models are estimated to find out to what extent village characteristics influence net settlement per age category. Explanatory variables are grouped by type of amenity, but other characteristics such as
housing construction are also included. The regression analysis shows that effects of village characteristics on net settlement may vary considerably between different age categories. Especially the findings of the effect of primary schools on net settlement are interesting and contrary to previous research findings on the topic.

**Chapter 4** answers the third research question on the extent to which the inward and outward flows of families with children in villages are influenced by the presence of a primary school. A distinction is made between villages where the primary school is still present, villages where the primary was not present during the period of observation, and villages where the primary school closed during the period of observation. Population register data from the Netherlands were used to model the moving behaviour of families with children on the village level for the period 1996-2011. It was expected that a village with a recent closure of a primary school would experience an increase in the outflow and a decrease in the influx of families with children; a scenario much feared by families with children who live in rural villages. The results of the regression analyses show that these fears are partly unfounded.

In **Chapter 5** it is investigated in which ways people in selected rural villages in North-Netherlands experience consequences of decline. Furthermore, it is examined how the perceived consequences of population decline influences the collective social cohesion within the villages and the individual social capital of its inhabitants. The reason for this is that social cohesion and social capital are important factors in the self-reliance of rural villages and its inhabitants, which is actively and increasingly promoted by national and local governments. To uncover these relations, 23 in-depth interviews in six villages in the North and East of the province of Groningen were conducted. The results showed that the consequences of population decline that are predominantly experienced are found in tangible aspects of the living environment. Furthermore, it showed that population decline influences social capital differently over time.
Chapter 6 contains the conclusions of the studies described above, recommendations for further research, and recommendations for policy makers.
References


