

Rural depopulation policies in Sweden

What can rural municipalities do to reverse a population decline?

Abstract

There is an urbanization process going on all over the world and even if the process has a slower pace in Sweden now than during the industrialization period, the rural areas has experienced a general population decline the last two decades, despite a population growth nationally. This population decline has negative consequences for the Swedish rural municipalities and most of them uses, beside their mandatory welfare duties, various policies aimed towards having a positive population development. This study uses two different methods with one large N study and one small N study of rural municipalities with the intention of increase our understanding on how municipalities work to counter depopulation and what policies that actually have an impact on population changes, and whether or not these can be regarded as effective. The results show that municipalities work differently towards population changes and it is hard to make any conclusions about the effectiveness of the policies used. The conclusion is made that all municipalities face different prerequisites and there is no 'one size fit all' solution, and hence municipalities should focus on being as good as possible in their welfare duties.

Keywords: Sweden, rural municipalities, rural depopulation, municipal policies

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1 Introduction

The vast urbanization process that begun with the Swedish industrialization around 1840 ended around 1970, during this time the proportion of Swedes living in cities had increased from around 10 % to about 80 % (Nilsson, 2011, p 15). Since the 1970: s the urbanization process has lessened, however not stagnated completely. Between 1990 and 2012, Sweden's population increased by roughly one million and the people living in rural areas still decreased. This means that despite a general population growth in Sweden, rural areas still face depopulation. The reason for this is a combination of high mortality, low birth rates and negative net-migration (Jordbruksverket, 2013).

Younger people are more likely to migrate, and that leaves the rural areas with a higher dependency ratio than the urban areas, with a significantly higher share of people over age 65 (Amcoff, 2008, ch 5). This has severe consequences for many rural municipalities who not only face higher costs in terms of elderly care and a decreasing tax-base, but the risk of dying out (ibid).

The rural areas cannot however be depicted as a homogenous group and there are vast differences between them. The rural municipalities who geographically lie within commuting distance to a greater city area like Stockholm, Gothenburg or Malmö is facing a better population situation than the rural areas that lie in more remote areas. Some municipalities in northern Sweden have faced a depopulation of 25-50 % since the 1960: s and in the whole Northland region¹ the population has diminished with 66 000 people since the 1960: s despite a national population increase of 23 % (Formas, 2008, ch 6).

Statistics support the notion that people who move to rural areas in search for a calmer lifestyle closer to nature still appreciates living in a commuting distance to a larger city where they can consume, find services or even work (McGranahan & Beale, 2002). However studies show that there is a potential for population growth in the rest of rural Sweden (Niedomysl & Amcoff, 2011) (Hedberg & Haandrikman, 2014), but the challenge for the rural municipalities is to compete with the cities to attract people in working age when the rural labor market is more limited and less diversified. Another problem is that many Swedish citizens fulfill their dream of a rural lifestyle by having a second vacation home in a rural area, which of course is better for the municipalities than no visitors at all, but not sufficient when they strive for full year inhabitants (Niedomysl & Amcoff, 2011).

¹ The part of Sweden above the regions Dalarna and Uppland.

This study will address the issue of rural depopulation with a focus on the rural municipalities which are the entities, in the end, who are responsible for the population in rural Sweden and their provision of the basic welfare services that makes life in these areas possible. The focus will lie on the policies used against depopulation on municipal level. The results from the study are meant to increase our understanding on how municipalities work to counter depopulation and what policies that actually have an impact on population changes and whether or not these can be regarded as effective. For many rural municipalities and their inhabitants the issue of depopulation is the single most important problem and this study intend to contribute to more knowledge about the issue and what can be done about it.

1.1 Background

The background will begin with a national policy perspective to give the reader an idea about how rural depopulation is addressed on national level. Afterwards a brief history regarding Swedish municipalities and their responsibilities are provided for a general understanding of the rural municipalities' role in the Swedish public sector. The section will end with a problem formulation, research questions, delimitations and a disposition of the study.

1.1.1 National policies aimed towards rural depopulation

Rural population decline is not specific for Sweden but can be found all over the world and nearly all the EU countries deal with it to some extent (Karcagi & Katona, 2012). It has also been going on for some 150 years and in a published speech in 1893 before the British royal statistical society it contain the following quote; “[t]he ‘alarming depopulation of our rural districts’ has of late been the subject of many articles and even more speeches” (Longstaff, 1893). Hence this is neither a national nor a new issue.

Differences across regions within countries are often greater than differences between countries; however policymakers usually focus more on national development and focus less on regional development (OECD, 2009, p 13). In general, urban regions tend to be richer and have a better economic development than rural regions within OECD, but this is not evident and a significant number of rural regions have outperformed urban. High national growth rates tend however to be associated with high regional growth rates and the direction of causation can run either way (ibid, p 15).

Sweden's ambition is to as large extent as possible, all Swedish residents should face and receive the same welfare services and provisions regardless of where in the country you reside. This is dealt with through a “municipality equalization system” where all municipalities pay a fee to the central government who in turn distribute the money back to the municipalities in relation to their

revenues and costs. If a municipality has high costs they receive more money from the government and vice versa. This means there are net-benefiters and net-contributors among the municipalities, where the vast majority of the rural municipalities are net-benefiters (Skl, 2006).

The Swedish government has expressed its support for a vital rural Swedish landscape which is important for the development of the whole country. Therefore there are a number of policies, often initiated and overseen by the EU, aimed at primarily strengthening the economic development and competitiveness of the rural areas. Four of these policies are larger programs or strategies, they are:

- Regional development programs.
- The European Union structure fund-program.
- The Swedish rural development program.
- The program for the European fishery-fund.

These programs are developed every 6 years with a new period starting 2014-2020, hence the previous programs between 2007-2013 just ended with some roughly 80 billion SEK, mostly public but also private means, in payments and various subsidies to rural areas (Regeringskansliet, 2008). If the municipal equalization system is meant to smoothen out the economic differences between municipalities in Sweden, these programs aim at increasing entrepreneurship and competitiveness in rural areas.

One should not mix support of rural areas with agricultural support and the last decades the support of rural areas are increasingly focused on stimulating businesses and entrepreneurship in other sectors than agriculture. In 2010 the total agricultural sector's share of wages was 1, 3 % in rural municipalities and 3, 5 % in scarcely populated rural municipalities². Hence the importance of agriculture in rural municipal economies is relatively small.

During the end of the 1980: s and early 1990: s, due to decreasing economic growth and increasing internationalization the municipal sector together with the rest of the public sector in Sweden faced demands of lower consumption and increased economic efficiency within its organizations (Fridolf et al, 2000, p 7). Investigations show that the retrenchment of the Swedish welfare state since the end of the 1980: s has been of specific disadvantage for rural areas with the shutdown of the physical presence of several vital public services like police offices, employment offices, postal services or public insurance fund offices. Many of these services have become more electronically accessible which enable people to use the services with help of the internet. One problem here is that such infrastructure is less developed in rural areas and where cities have a well-developed broadband infrastructure, many rural areas have to do with a much

² According to the definition of rural municipalities made by the board of agriculture. See methodology section for how the definition is made.

slower internet connection which mean that the accessibility of both public and other services are much lower in rural areas³ (Mattsson, 2010, ch 5).

The retrenchment meant a loss in jobs that perhaps did not affect that many people directly, however the indirect consequences were significant for much of the relating functions, both public and private, which the smaller rural municipalities have tougher to compensate for than larger urban areas (Kåpe, 2006, p 82-83) (Persson & Westholm, 1993). A conclusion is made that even if “small policies” like the national programs mentioned above aimed directly at the rural areas matter to some degree, studies show that the “larger policies” like the retrenchment of the welfare state, de-regulating the financial market and other structural changes on national or supranational level affects the rural areas much deeper. However, despite various support from national programs, in the end it is up to every municipality to create an advantageous and generally likeable environment for both its existing citizens and businesses and in order to attract new ones (Kåpe, 2006, p 84).

1.2 Swedish municipalities

1.2.1 The origin

Sweden has a relatively old history of some form of local autonomy that can be traced back to the Christianization and formation of local parishes in medieval Sweden (Nilsson & Forsell, 2013, p 22-23). From the beginning of the sixteenth century, farmers and villages were more emancipated than in many other contemporary European countries. Collectives of free farmers had a certain form of autonomy where they could decide upon some political matters that affected them, as long as their decision were not too far from the wishes of the Swedish king (Wetterberg, 2000, ch 2). This embryo of local autonomy developed until the creation of municipalities in the municipal constitution of 1862, which was the result of some 30 years of discussions between reformers and the aristocratic representatives of the central government in Stockholm. The creation of municipalities was an answer to the development of an increasing importance of education⁴ and care for the poor⁵ that the old parish organization could not handle. There were three kind of municipalities that were created, cities, towns and counties where the vast majority of Swedes in 1860 lived in the smaller rural

³ The Swedish rural program has supported the expansion of broadband in rural areas since 2010 and enables funds for the regions that want to improve communications.

⁴ From the elementary school charter of 1842 the Swedish parishes were obligated to provide its citizens with a school and teacher (Florin, 2010).

⁵ From the care for the poor charter of 1847 the Swedish parishes were obligated to establish an authority with responsibility for caring of the poor (Olofsson, 1997).

counties whose number at this time were about 2355 (Nilsson & Forsell, 2013, p 17-18 & 48). The municipalities' organization grew steadily after the increasing welfare ambitions that started in the beginning of the 1920: s, and after the introduction of women on the labor market after the Second World War. This caused the municipalities to take care of many of the old responsibilities that women used to have like caring for the children and the elderly. The small size of many of the county municipalities started to be a hinder in the development of a Swedish welfare state. The urbanization had concentrated people to the towns and cities and in 1950 only half of the Swedish population lived in county municipalities, compared with 90 % at the time of their creation in 1862. The small county municipalities diminished in population size and their tax base shrunk at a time where new welfare reforms and obligations of municipalities were implemented in a rapid speed (Nilsson & Forsell, 2013, p 48-49). In 1950 more than half of the county municipalities had a population of less than 1000 people and the municipality with the smallest population was Skeglinge in Skåne with 67 inhabitants (Erlingsson et al, 2011, p 9) (Almgren et al, 2003, p 143). The national government was concerned and after some 30 years of debate, 1500 municipalities disappeared and the old categorization of three municipality types vanished in a great reform in 1952. Many municipal representatives protested and many residents in disappearing municipalities were in great sorrow for, what they thought to be a loss of local identity (ibid, p 4) (Nilsson & Forsell, 2013 p 52-56). This reform was however not enough and the merging of municipalities continued under heavy protesting until 1974 when the number of municipalities was 278 (ibid, p 56-61). Today the number of municipalities has slightly increased to a total of 290. According to the definition used by the Swedish Board of Agriculture, 197 of these municipalities are depicted as rural and 34 % of Sweden's population lives in these municipalities (Jordbruksverket, 2013). The development of the size and importance of the municipal organization can be illustrated with that in 1960, one of thirteen in the labor market worked in the municipal or regional sector and today that number has increased to about one fourth (Wetterberg, 2000, ch 2) (Bratt, 2010, p 17).

1.2.2 Responsibilities

The municipalities are required by law to provide basic services for its citizens and to guarantee a certain standard of living. The Swedish municipalities have a relative high degree of autonomy which is specified in the Swedish constitution, and can therefore be quite flexible in policymaking as long as they follow the municipal law (skl.se) which is determined by the legislators in the national parliament. This is quite natural because every municipality face different challenges and circumstances, both within its own organization in terms of human capital and outside in terms of citizens and geographical location etc. Therefore municipalities are very similar in one sense that their legal task is the same for all,

but very different in the sense that the circumstances under which they must undertake this task is very varied (Brorström & Siverbo, 2001, p 9-10).

The mandatory obligations of a Swedish municipality are for example to provide: Child care, education for adults and children except on tertiary level, elderly and disability care, environmental plans, various housing and construction administration, libraries, some water and sewer infrastructure, civil defense and together with the region also public transportation. Education and social care take up most of the costs, about 60 % of a municipality's total costs (Bratt, 2010, p 16-17). The revenues of a municipality come from taxation where the municipal tax, decided by the local municipal politicians, usually lie around 20 % and the regional tax around 10 %. The revenues are often very dependent on the national economic cycle and if the national economy goes bad so does the municipal economy. The municipalities have labor-intensive production and hence cannot increase efficiency in production as an industry producing goods (ibid, p 16-18).

There are activities the municipality can have in addition to the mandatory obligations which have support in the municipal law, and the paragraph is purposely vaguely formulated so that municipalities may do what fits their conditions as long as the activities are within the public's (municipal residents) interest. The municipalities often have motives to support local businesses in order to keep jobs within the municipality and indirect support is allowed as long as it does not violate national or EU competition law in terms of direct support and subsidies (Almgren et al, 2003, p 147-149).

1.3 Problem-formulation

1.3.1 Swedish municipalities and depopulation

Why is it a problem for a municipality when their residents decide to move to a different municipality? Population growth for municipalities has generally been a measurement that indicates that a municipality is doing well and is attractive for people and businesses. Recent studies where data from all 290 Swedish municipalities are analyzed show clearly the effects of population changes. The effects of population decline are higher cost-levels per capita, lower levels of investment per capita and lower economic result per capita. The effects of population growth is the exact opposite with lower cost levels per capita, higher levels of investment and a higher economic result (Fjertorp 2013). These result support the notion that it is desirable for a municipality and its citizens to have a positive population growth for more reasons than just to appear attractive and vibrant. Indeed, in studies where public representatives for different municipalities were asked to list their view on what factors that was most crucial for the success of a municipality, the result showed that the single most important factor in their view was a positive population growth, ranked before factors like competent colleagues, a well-developed infrastructure and the ability to make tough decisions (Nilsson, 2012).

So what can municipalities do to reverse a negative trend and achieve population growth? Researchers are quite divided on this matter and quite naturally since all municipalities face different prerequisites, there is no “one size fit all” solution but rather recommendations that the municipality use their limited resources as efficient as possible (Erlingsson et al, 2011). In terms of tools the municipalities can use in order to become more attractive and reverse a trend of depopulation is a rather complex issue. What makes an attractive place to live depend on who you ask, but in general it is if a municipality can provide good terms of living for its citizens, and especially for strategically important groups like families. Therefore it is important to provide good schools and child care, a safe environment and a vital community with good communication technologies⁶ (Wetterberg, 2000, p 200-202). These measures are rather evident and many municipalities have taken further steps to increase their attractiveness which I will go deeper into later. It is however debated whether these measures have any effect or if they can even be harmful and lie on the edge of what can be depicted as legal, like various supports for businesses that may distort competition. Many scholars therefor advise municipalities to focus their attention on their basic responsibilities and strife for good quality in the welfare, effective institutions and a good infrastructure (Fjertorp, 2012) (Erlingsson et al, 2011).

1.4 Research questions

This study intends to increase knowledge about the municipal policies against depopulation and the relation between municipal policies on one hand and population change on the other. Furthermore the study will investigate how municipalities actually work against depopulation and discuss the effectiveness of such policies.

There are two main research questions in this study with two different methods used to answer them. The first question will be addressed with the use of a cross case study of 185 rural municipalities where the impact of 12 different municipal policy variables will be analyzed. The second question will be answered through a small-N case study using descriptive statistics and interviews of representatives of four rural municipalities. The last sub-question will be addressed by discussing the results from both the large and small-N study including descriptive data. The questions are:

1. What rural municipal policies affect population change and in-movers?
2. How do rural municipalities work against depopulation?

⁶ Information and communication technologies includes the Internet, wireless networks, cell phones, and other communication mediums.

- What patterns regarding the effectiveness of the rural municipal policies against depopulation can be identified?

The questions will be answered in falling order using the methods described and discussed in relation to previous research presented in the theory section.

1.4.1 Delimitations

When doing research about municipalities there are many aspects you can address, for instance its organization and institutions, economic controlling, the importance of leadership or innovation. Research on the importance of good institutions for municipalities has for instance been made in Brorström & Siverström (2001 & 2008) where they bring up the importance of good leadership and an effective organization as a factor of success for a municipality. Anjou (2010) study the municipal organization's abilities to perform an effective controlling of the municipal production of services and the role the municipal leadership has in order to prioritize the municipalities' issues. Frankelius & Utbult (2009) presents a compilation on research about innovative municipalities and recipes of success for the municipalities that wants to be innovative and developing. These are aspects that also influence whether a municipality can be successful or not when it comes to being attractive and having a positive population development, and the importance of leadership, cooperation and effective controlling for a successful municipality is also stressed by municipal representatives in Nilsson (2012).

This study will however not address these issues but focus on policies used by municipalities with disregard to individuals within the municipality and the implementation of the policies, and whether or not it has an effective organization to carry out the policies in a proper manner. This would surely be interesting for future studies but due to limitations in time and finances such an in-depth study has not been carried out here.

2 Theory

Research on the municipal sector is rather extensive and it exist several research institutes for municipal research⁷. Much of the research consists of municipal organizational issues regarding theories about controlling, management, economy or innovation⁸ and even if population change is a rather common topic there are not many fruitful theories about the causalities between municipal policies and population change. The theories described in this section begin with previous research on population flows in Sweden and the role immigration can have for the rural population development. After follows a section where different policies used by municipalities to deal with population change are described. The section ends with a discussion regarding the theories and how they will be applied and used in this study. Due to the uniqueness of Swedish circumstances⁹, the Swedish municipalities and their relative autonomy and obligations, the research presented has with few exceptions been made within a Swedish context.

This is a rather explanatory study and with the exception of a classification framework of policies which will be presented, this study will have an investigative character with its analysis related to previous research rather to any analytical framework or extensive theory on population change.

2.1 Population flows in Sweden and motives to move

Historically the migration flows has followed economic motives and the possibility to make a living. The natural resources of the Northern part of Sweden began to be exploited in the end of the nineteenth century with a population growth as a result. The industrial revolution transformed Sweden from an agrarian to an industrial society with a vast urbanization process as a result with people moving from rural areas to cities and towns who offered labor in the fast growing industry (Westholm et al, 2004, p 59-61). Neo- classical migration theories see migrants as rational actors who adjust to the economic opportunities of different regions and move to places with higher incomes and better employment opportunities (Lundholm et al, 2004, p 61). However from the end of the 1970: s

⁷ Examples are "Centrum för kommunalstrategiska studier", "det Nationella kommunforskningsprogrammet", "Institutet för kommunal ekonomi", "Kommunforskning i Västsverige", "KEFU" and Natkom.

⁸ See section 1.4.1 for more elaborations on municipal research.

⁹ Urbanization is of course happening all over the world, what is meant is that all circumstances are unique in its own way and research made under Swedish circumstances are more valid for my study.

the correlation between migration and labor began to diminish and later studies about the motives of interregional migration show that economic and labor motives decrease in importance (ibid).

A study about the motives of interregional migration in the Nordic countries conducted in 2004 (Lundholm et al, 2004) based on a survey with 9600 respondents where 5000 were Swedish citizens, showed that the Nordic inhabitants mainly saw themselves as voluntary movers where the decision were easy to make. The Swedish respondents gave reasons like education, social motives or environmental motives more often than employment as reasons to why they moved. This does not mean that economic factors are not significant and among movers from scarcely to densely populated areas, employment is a somewhat more common motive for moving than the other way around. There is however no difference in voluntariness between the groups moving to or from sparsely populated areas, indicating that while inhabitants in rural areas more often move because of employment reasons, they still do not perceive themselves as forced to move because of economic or any other reasons (Lundholm et al, 2004).

These findings can be related to another study from Arena for growth¹⁰ (2002) where the migrants moving to smaller municipalities were analyzed. These people had often very different characteristics even if the ones that were least likely to move to a small municipality were old retirees and young childless couples. The ones most likely to move are young single people and families with children, where the latter category tend to stay longer in the municipality. The primary reasons to move to the municipality from this study were whether the municipality offered a good living-environment, had a geographically good location and if it could offer employment. These reasons were however mostly given by people who were newcomers to the municipality, the reason for home comers who returned to the municipality after some time away were mostly dependent by the person's values rather than an objective judgment of the municipality's characteristics (Arena, 2002).

A study has shown (Niedomysl & Amcoff, 2011) that there might be a hidden potential for rural population growth where there are more people not living in rural areas that express preferences for rural living than people who actually migrate. The authors of the study conclude that sparsely populated areas with good recreational opportunities may appear particularly attractive for people living in the more densely populated and polluted areas. It is mainly the landscapes and environment in the rural areas that attracts people who seeks a calmer lifestyle with more room for certain activities and also lower housing expenses (Arena, 2001). People moving to rural areas also have lower expectations on the public and private service levels but do expect decent schools, medical care, grocery stores and good communications. Another important issue for rural in-migrants is good roads and decent prices on fuel (Arena, 2002).

¹⁰ "Arena för tillväxt" My translation.

2.1.1 Birth rates and the role of foreign Immigration

An increasingly important source for population growth for municipalities is foreign immigrants. For a population to be able to reproduce itself without immigration the average number of children a female give birth to must be 2, 1 on average, called the reproduction level. This has only been achieved on aggregated level in Sweden one year in 1991 during the last four decades, all other years the average birth rate has been fluctuating below the reproduction level with a record low at 1, 5 children per woman in 1999. The birth-rates in Sweden are still relatively high compared to other European countries where Sweden's relatively generous family policies and parental insurances are seen as an influential factor. (scb 1). However the main contributing reason for Sweden's population growth since 1995 is because the net migration has been positive (Lundholm et al, 2004) (Vinnova, 2013).

After the peak of asylum seekers and immigrants following the armed conflict in the former republic of Yugoslavia in the beginning of and mid 1990: s, the immigration flows steadily decreased during the end of the decade and in the beginning of the millennium. Since then immigration has increased and new conflicts following the Iraq war in 2003, unrest in Africa's horn and latest the ongoing civil war in Syria has caused immigration to Sweden to reach new record levels and the highest amount of asylum seekers in 20 years¹¹ (scb 2).

These conflicts and the immigration flows affect Swedish municipalities greatly since they are the ones held responsible of taking care of the refugees. The municipalities sign an agreement with the region about how many refugees they will take care of and during how long. Meanwhile the municipalities who have taken care of the refugees are obligated to provide educational services in Swedish for both adults and the children who go to regular schools (migrationsverket.se) (Wetterberg, 200, p 122-125). There are great differences among the municipalities in terms of how many refugees they take care of. Between 2005 and 2011 the municipality Sorsele took care of 137, 8 refugees per 1000 inhabitants and the municipality Lekeberg took care of 0, 4 refugees per 1000 inhabitants (Dagens samhälle).

The Arena for growth article made the conclusion that about two out of five refugees that were placed in smaller municipalities stayed in the municipality after and the rest moved to other locations. The differences between regions were high and more refugees moved away from the municipalities in the Northern part of Sweden. The share of foreign-born people in Sweden is mainly concentrated to the southern part of the country and over 50 % are residing in the great city areas Stockholm, Malmö and Gothenburg (Glesbygdsverket, 2007). The factors that mainly influenced whether a refugee chooses to stay or not were the amount of other immigrants in the municipality, mainly fellow countrymen and how good the labor market for immigrants was.

¹¹ In 2013 about 54 000 people from 140 countries applied for asylum in Sweden (scb 2).

Other immigration flows that affect the Swedish countryside are immigrants from the other Nordic countries and the EU. The proportion of foreign born people in the Rural areas are lower than in the Urban, but has steadily increased over the last decades. About half of these immigrants are born in Neighboring countries, Norway, Denmark and Finland and many of the remote rural areas lie close to the Norwegian and Finnish borders (Jordbruksverket, 2013). These immigrants plus other groups like immigrating women from South-East Asia and Eastern Europe often immigrate for social reasons and have a Swedish partner residing in the rural area. Other immigrants to the Swedish rural areas are middle-aged EU-residents from more densely populated areas of Europe, for example from the Netherlands, who are fulfilling their dream of a slow paced rural lifestyle (Hedberg & Haandrikman, 2014).

Hedberg and Haandrikman (2014) who studies Swedish rural international migration concludes that the Swedish rural areas are becoming increasingly global and diversified involving migrants coming from many parts of the world with multiple migration motives. They believe that the role of international migration will continue to be of increasing importance in transforming the countryside in the future with a potential to repopulate and reproducing rural areas (Hedberg & Haandrikman 2014).

Hedberg and Haandrikman believe the smaller populations in rural areas can increase a sense of belonging for foreign immigrants and therefore ease integration in these parts (Hedberg & Haandrikman 2014). However as in the rest of Sweden it is harder for immigrants than native Swedes to find work and it gets increasingly harder the farther away from Sweden you are born, for example outside of the Nordic countries and the EU. The employment rate of foreign born are lower in rural areas than in the urban and explanations can be difficulties relating to cultural and language issues which can be even more challenging in the more scarcely populated rural areas with a smaller and more limited labor market (Jordbruksverket, 2013).

2.2 Municipal policies

2.2.1 Municipal motives and strategies for increasing the population

The currently closed public authority Glesbygdsverket who until 2009 were responsible for the reporting of the Swedish scarcely populated areas, made between 2006 and 2007 a mapping of the various strategies municipalities had for increasing its population. About 150 municipalities outside the three greater city-regions responded to the survey and the result showed that municipalities generally work a lot towards increasing the population and entrepreneurship in a number of ways. About three quarters of the municipalities had strategies aimed towards increasing the population and differences between regions are small.

The main motives that the municipalities had why they were working for increasing the population was (1) simply a general population increase, (2) to increase business, (3) improve age-structure and (4) need for qualified labor. The motives that were ranked last were filling up empty housing, even out an uneven distribution between the sexes and increasing ethnic diversity. Hence one can see that the highest ranked motive aims at being an attractive municipality for people in general and secondly economic motives. The motives ranked last suggest that municipalities in this study do not have a problem of empty houses in general and after age and education do not regard the characteristics of the residents as being important.

144 municipalities listed the measures they take in order to increase their population and about 90 % used some form of marketing to promote the municipality and offer an attractive living environment, about 75 % offer attractive land and housing and about the same amount invest in tourism. Since the survey contained response alternatives the measures ‘marketing’, ‘offer attractive living environment’ and ‘invest in tourism’ should be interpreted very broadly and therefore marketing can be anything from newspaper ads to various local arrangements (Glesbygdsverket, 2007).

2.2.2 Inter-municipal and regional collaboration

Many municipalities in Sweden have a small population, 171 of Sweden’s 290 municipalities have less than 20 000 inhabitants, and 77 of these less than 10 000¹². The smallness of many municipalities impose limitations in their ability to carry out their mandatory welfare responsibilities and even less be able to have progressive policies for economic and population growth. Hence nearly all municipalities, large and small, participate in a number of collaborations with other actors such as national public authorities, the region and other, often neighboring municipalities. This is consistent with the municipal law and enables smaller municipalities to more efficient and share responsibilities in a wide number of areas from upper secondary education to environmental work and energy (Skl, 2005).

Even though the potential of collaboration may be high there are serious challenges for smaller municipalities to be able to efficiently participate in collaborations. It is difficult for smaller municipalities to have the capacity and competencies to fully participate in collaborations, especially in areas like growth issues that do not fall under the core welfare responsibilities of the municipality (Tillväxtanalys, 2014, p 46). Another issue regarding municipal collaborations is the blurring of accountability in areas where many actors share the responsibility. It is more difficult for citizens to demand accountability from their elected local politicians if the ones responsible of the local upper secondary school are mainly representatives from other municipalities (Westholm et al, 2004, ch 5).

¹² In the end of 2013.

2.2.3 What can politics do to stimulate population growth? – Framework of analysis

The government authority Growth analysis (Tillväxtanalys) analyzes and evaluates Swedish growth politics and in their publication *[r]egional and local growth politics, what can and should public actors do?* (2011) they make an overview on research about the subject and include some additional empirical illustrations. The report has a broad definition of growth, both in economic and population terms however I believe the two issues very much correlate and hence the report is very valid for a municipality who wish to increase its population.

The authors choose to divide the local economy into three parts within an institutional framework consisting of (1) *Conditions*, (2) *Core functions* and (3) *Strategies for increased attraction*. This division will later be used as an inspiration in the analysis of the small-N case study. The first part *conditions* consist of national policies, legislation and regulation on national or supranational level and geographic location which is very hard for the municipality to affect by itself. The national policies and regulation are the same for all municipalities but the geographical location is naturally different for every municipality including access to central infrastructure such as airports, harbors or railroad connections. The second part *core functions* includes most of the basic infrastructure that municipalities can affect and improve by itself which can be its welfare duties, local infrastructure or the attitude toward local established or new businesses. The last part *strategies for increased attraction* includes many potential strategies aimed towards increasing the municipality's attraction in terms of new inhabitants, businesses, tourists, entrepreneurs or capital. The parts are mutually dependent on each other and a municipality cannot be attractive without good core functions (tillväxtanalys, 2011, p 15-17). These parts provide a good framework for a case analysis in terms of classification of the policies the municipalities have aimed towards population growth.

The report have the ambition to explain what measures taken by municipalities which can be regarded as effective, however the report conclude that this is a very hard question to answer since the local conditions of municipalities differs greatly and there is no “one size fits all” solution, and this is supported by other scholars (Erlingsson et al, 2011) (Fjertorp, 2012). The report notes that there is a lack of adequate research on the subject and the existing research are focused on case studies of municipalities that are successful. Hence there is a lack of studies of unsuccessful cases and quantitative studies and this makes it difficult to isolate variables in order to make an effect-analysis to see what measures a municipality can take in order to grow economically or by population (tillväxtanalys, 2011). The report see indications however of a positive correlation between social capital, a positive business climate and political stability on one side and growth on the other (tillväxtanalys, 2011, p 38-39).

2.2.4 Marketing campaigns by municipalities to attract in-migrants

One way for municipalities and cities to attract in migrants as well as tourists and businesses is the use of place marketing in various ways. This strategy is widely used all over Europe and Sweden by large cities as well as peripheral regions and is often a part of a regional or local development strategy aimed towards stimulating growth. The campaigns focus on the specific attractiveness of the place and rural areas often uses arguments such as beautiful natural environments, rich cultural heritage and a higher quality of life far away from the stresses and pollutions of urban areas. Other arguments that are central for a rural municipality to use are to offer good communications, good quality of schools and services and a good supply of affordable housing (Cassel, 2007). A region or municipality who has experienced a period of population decline is often perceived with an image of unattractiveness which makes it harder for local businesses to interest new labor and hence it is in the interest of the whole region to reverse this unappealing image (Niedomysl, 2004). Many companies in rural areas find it difficult to attract highly skilled labor and an image of the area as being unattractive is believed to reinforce this issue (Vinnova, 2013). However studies show that the most attractive category of in-migrants according to municipalities is families with children, surpassing the highly educated or skilled labor which indicates the high priority given to sustainable population growth since families are less likely to move once established in a new place (ibid).

The idea of place marketing fits with the research that shows that attractive living environments is a more important component than jobs when it comes for people to decide where to move. Even so the question is whether these marketing campaigns do any difference and actually attract new residents or businesses. Two studies by Thomas Niedomysl (2004 & 2006) have attempted to evaluate whether marketing campaigns have led to any changes in migration flows to rural municipalities. With the use of survey data and regression analysis the findings showed that about half of Sweden's municipalities had carried out marketing campaigns to attract in-migrants in the beginning and early 2000: s and Niedomysl's results did not support the notion that these campaigns yielded any success in attracting in-migrants. To the question on why municipalities still carry out often costly marketing campaigns Niedomysl believe policymakers feel pressure to act in time of crisis and therefore launch marketing initiatives to boost morale and create a starting point for a more positive development. Another possible explanation is simply 'because everyone else is doing it'. Case studies show that marketing campaigns to increase the attractiveness of a place was not only directed towards people outside the municipality but inhabitants as well, trying to create a positive environment (Cassel, 2007). Indeed the vast majority of respondents by representatives in municipalities with marketing campaigns were convinced that the campaigns made a difference (Niedomysl, 2004 & 2006).

These studies had some limitations due to the quantitative nature that some good examples of campaigns might have been obscured by the highly aggregated data used (Niedomysl, 2006, p 2007). Therefore one cannot rule out that in some cases marketing campaigns can be successful; however since campaigns are costly

it is doubtful if it is any good method to use for a municipality to reverse a negative population trend.

2.3 Discussion and application

The first part in this theory section on migration flows and immigration is included to show why people move, where they usually choose to move and what they expect of the place they move to. In brief these questions depend on the individual and different individuals move for different reasons and expect different things. However regardless of the characterizations of the individual it is fair to assume that they appreciate, as theory tells us, good schools, good communications, a good labor market and in general a good living-environment. These are variables suitable for the large-N study to include and even if some of them, like a good living environment is hard to operationalize, this research on explanations for the dependent variables of population change and net in-movers is what the large-N study has to rely on in terms of its assessment of the relationships between various policies and population change.

The second part about municipal policies is included to describe what theory tells us about policies that municipalities use in order to attract people. These theories have influenced the small-N study and in particular the interview questions to the municipal representatives. The theories will also be related to in the analysis and discussion of the small-N study where the division of the economy into three parts made by Growth analysis will serve as a way to categorize the different policies used in the analysis. The core functions relate to a great deal towards the independent variables used in the large-N study, whereas the strategies for increased attraction can be related to the previous studies described here in the theory section.

The gap in the research this study intends to fill is expressed in the Growth analysis report where they see a lack of quantitative studies and a study on unsuccessful cases in municipal research. This quantitative study on policies in rural municipalities will tell us about the relationships between these policies and population change which will hopefully increase our understanding of the phenomenon of rural depopulation. The case study includes both successful and less successful cases which allows for a comparison between the two and hence open up for a discussion of what policies that might be effective against depopulation.

3 Methodology

To understand what policies affecting and used to increase population change, this study is conducted with one large-N (cross case) study and one small-N case study with interviews of municipal representatives. As John Gerring (2007) writes, these kinds of studies, using quantitative versus qualitative research methods, are often conceptualized as being in opposition to each other. He disagrees and writes that “rather than thinking of these methodological options as opponents, I suggest that we think of them as complements” (Gerring, 2007, p 12). In this study the different methods are thought to be a complement to each other where the large-N study can make a broader analysis of the correlation between municipal policies and population change whereas the small-N study can go deeper into the nature of the phenomenon, how the municipality use these policies and actually work with population change. Together the two studies give a greater insight in municipal population change which allows addressing the last question of what policies against depopulation that might actually be effective.

As Allwood (2011) puts it, “researchers who believe that it is only allowable to develop new methods within the assumed reference frames of each of the qualitative and quantitative approaches will miss opportunities for fruitful combinations of features belonging to both of the approaches” (Allwood, 2011, p 11). This study is an attempt to, with the help of two different methods answering two different questions, give increased insight to the phenomenon of municipal population change and the policies used in relation to this phenomena.

This methodology section will report the methods used in this study and provide motivations for why they were used. It will also report on the principles and strategy for the data collection and critically assess the data sources.

3.1 Large-N study

The large-N study will use official cross-section data¹³ of 185 rural municipalities from the Swedish statistical agency, the municipal and regional database and the board of agriculture in order to analyze what factors that influence the population change and amount of in-movers to a rural

¹³ Cross section data consists of observations relating to units of observation at one moment in time (Dougherty, 2011, p 110).

municipality¹⁴. The analysis is carried out with the use of two standard multiple regression analyses with two different dependent variables but with the same 12 independent variables for both regressions. The regression analysis is a useful tool where the predictor variables are entered in the equation simultaneously in order to be evaluated respectively in terms of its predictive power (Pallant, 2013, p 155). Hence this is a good method to use in order to answer what policies may affect population change. The analysis is carried out in the statistical software program IBM SPSS and the model equation is expressed as:

$$Y_i = \alpha + \beta_1 x_{1i} + \beta_2 x_{2i} + \dots + \beta_{12} x_{12i} + \epsilon_i$$

Where Y is the dependent variable, x the independent variables, α is the regression intercept and β is the regression parameters who measures the effect of variable x_i all other variables *ceteris paribus* (Westerlund, 2005). ϵ is the disturbance term and i the indexes of a particular observation.

The theory behind an Ordinary Least square Regression (OLS) which is used here, is to closely ‘fit’ the function with the data and it does so by minimizing the sum of squared errors from the data. The idea is to investigate to what extent the variance of the dependent variable can be fitted to the independent variables, and the part of the variance that cannot be fitted is collected by the residual (disturbance term) (Djurfeldt et al, ch 12-14) (Westerlund, 2005).

3.1.1 Variables used in regression and small-N study

The variables used are all cross-section data where some of them are average values stretching over a certain time-span while others is a value from a certain year. Some statistics are only collected certain years, others only started to be gathered a few years ago whereas some statistics, like the one on the municipal population sizes, stretch back several decades. That is the reason why cross-section data is used and not time-series or panel-data, whose model might have had a larger explanatory power since they can explain changes over time better.

These variables will be used both in the regression analyses and as descriptive statistics in the small-N study.

The variables chosen are influenced by the theory on migration flows and what people expect from a municipality they move to. Since this varies on individual preferences, the choice has fallen on rather evident policies that are expected to influence the population and also variables which the municipality, directly or indirectly can influence. Also political variables on the local government are included too see to what extent the citizen’s vote matter.

There are two models analyzed in this study that have two different dependent variables but identical sets of 12 independent variables. The variables used in the two regressions are:

¹⁴ Links to the data sets are available in references.

3.1.2 Dependent variables:

Variable (data source) ¹⁵ and explanation	Motivation
Population change, (ssa) -This is the population change of a municipality in percent between the years 2006-2013.	The population change is the most measured and notable population variable. Includes both in-movers and net birth-rates ¹⁶ .
Net in-movers, (mrd) -Is the average number of net in-movers to a municipality between the years 2006-2013 divided with the population size. For example a yearly average of -0, 05 % net in-movers.	Whether people choose to move to a municipality or not tells us about the attractiveness of the municipality.

3.1.3 Independent variables

Education costs per capita, (mrd) -The average amount a municipality spends on education per capita between the years 2007-2009.	This variable is supposed to indicate to what extent the municipality invests in primary and secondary education. The measured time-period is chosen because of the supposed delay before the investments get noticed or get an impact.
Elderly care costs per capita, (mrd) - The average amount a municipality spends on elderly care per capita between the years 2007-2009.	Like the previous variable this one indicates to what extent the municipality invests in elderly care. There is a supposed lag in this variable as well and hence the time period.
Broadband accessibility, (boa) -This measure the share of the population in the municipality with an access to broadband with the speed of 50mb/sec or faster the year 2012.	Good communications are vital for a rural population in order to achieve good life-quality. The time-period is a bit late but a correlation to other communications-variables is likely and hence this variable is an indication of the quality of the municipality's overall

¹⁵ ssa=Swedish statistical agency, mrd=Municipal and regional database and boa=Board of agriculture

¹⁶ Net birth-rates are the birth-rate subtracted with the death-rate.

	communications.
Foreign born population, (mrd) - The share of the population which is foreign born or with foreign born parents in the year 2008.	Foreign immigration has been one of the most important sources of population growth in Sweden the last decades and the share of foreign born in a municipality in 2008 is, as theory say, correlated with previous or future foreign immigration. In other words foreign born people tend to move where there are other foreign born.
Information index on webpage (mrd) -This variable is a measurement of the information in 12 different areas, for example schools and housing, provided on the municipality's webpage, presented as an average between the years 2009-2013.	This variable is an indication of the role information and – in some sense - marketing has for the population development of a municipality. The time-span is a bit late however the correlation between online information provision and previous information provision is believed to be high.
Unemployment rate, (mrd) -The average unemployment rate between the years 2006-2013 of a municipality. An unemployed is a person that has no job but can start one in 14 days and has actively searched for a job within the last 4 weeks.	The unemployment rate is the most used of the different ways one can measure employment. The provision of employment is believed to have a large impact in people's moving patterns.
Newly registered businesses, (mrd) -The average number of businesses started per 1000 inhabitants between the years 2006-2013.	The business climate is important for a municipality' vitality and attractiveness. The amount of newly registered businesses gives a good indication of the business climate.
Tax rate, (mrd) - The average municipal tax rate between the years 2006-2013.	This variable is supposed to measure to what extent the economical motives matter for a population in a municipality.
Availability primary-schools, (boa) - The share of the population within the municipality with 5 minutes or more in travel distance to the closest primary school in the year 2011.	The services provided are important in rural municipalities and the closeness and provision of schools are important for families with children.
Availability health-centers, (boa) - The share of the population within the municipality with 5 minutes or	The closeness and provision of health centers are a vital service for a population.

more in travel distance to the closest health center in the year 2011.	
Municipal government, (ssa) -A dummy-variable where a right-wing municipal government between 2006 and 2010 =1 and left-wing and mixed governments =0.	Does the color of the municipal government matter? This variable measures this impact and the first election period is chosen due to the lag-structure of the politics implemented by the politicians.
Municipal government shift, (ssa) -A dummy-variable where a municipal government shift in 2006 =1 and no government shift=0.	Does a shift of a municipal government matter or is it important with political stability for the population development?

Naturally my choice of variables is restricted to the statistics that exist and what years they were collected. While variables based on statistics collected in the recent years cannot be regarded as having any impact in the population development of 2006, it can still be argued that the correlation of for instance the availability of schools in a particular municipality in 2011 is highly positive with the availability in 2005 or 2006.

3.1.4 Cases

The cases used are rural municipalities and hence larger municipalities with cities are excluded from the regression. The definition from the board of agriculture is used and a city-municipality is defined as having a population of at least 30 000 inhabitants and/or a city with at least 25 000 inhabitants. In this category a municipality laying close to a larger municipality and has more than 50 % out-commuters is also included. Hence the municipalities that do not fit in the above definition are defined as ‘rural municipalities’. According to this definition 197 of the total 290 municipalities are depicted as ‘rural’ (Jordbruksverket, 2013).

Because of some missing values in the statistics used there are some rural municipalities missing and the number of cases used in my regressions ended up with 185¹⁷.

3.1.5 Limitations of regression analysis

The multiple variable regression analysis is an application of statistical methods to the quantification and critical assessment of hypothetical relationships using data (Dougherty, 2011, p 1). Simply put the relationships between the independent and the dependent variables will be assessed with the use of the regression analysis,

¹⁷ The municipalities missing are: Mark, Svenljunga, Herrljunga, Vara, Götene, Tibro, Töreboda, Berg, Hedemora, Nässjö, Årjäng and Öckerö.

however this technique have a number of limitations that are important to remember when using it. Many scholars argue that the statistical technique can never substitute for good research design or subject-matter knowledge. The assumptions made are often in contrast with the real world and a question one must always ask is whether the assumptions and results violate common sense (Freedman, 2010) (Gerring, 2007, p 3). As Freedman (2010) write when he is reasoning about the possibilities to draw reasonable conclusions from causal inference of non-experimental data; “[t]hat is why judgment is so critical, the opportunity for error is so large and the number of successful applications so limited” (Freedman, 2010, p xiv).

One assumptions about the data in the regression model is that the disturbance term (ϵ) cannot be correlated with the independent variable(s), and if they are that may cause endogeneity as a result of for example measurement errors, simultaneity and/or missing variables (Dougherty, 2011 ch 8). Endogeneity makes the variable defect and its relationship with the dependent variable more or less wrong depending on the scale of the error, and the main problem of the model used in this study are simultaneity and missing variables¹⁸.

Missing variables may cause endogeneity since the intention of the variables used is to give an indication of the quality of the welfare services provided, which in turn will attract in-movers or stimulate people to start a family. The problem is that such a variable do not exist which objectively shows how people perceive the welfare provided by the municipality, hence instrumental variables like per capita spending on education is used to at least give an indication of how much the municipality invests in education with the assumption that higher investments give better quality on the education. This may not be correct since education costs may depend on other factors, like economies of scale where larger entities bring down costs and vice versa but say nothing about the quality of services.

Simultaneity where the direction of causality is diffuse is another issue where the dependent variables, population change and net in-movers may affect the independent variables. So where investments in education can influence population change, so can population change influence investments in education. If many new families with children moves to a municipality that may cause further investments to increase the capacity of the schools and hence increase per capita spending.

Endogeneity is a noteworthy problem and it will be considered and discussed in the analysis.

Another related issue is spuriousness which means that there appears to be a relation between the variables where that relation really depends on another factor (Dougherty, 2011). Say that broadband accessibility correlates with other communication variables such as public transportation or mobile-phone reception,

¹⁸ Simultaneity is when the direction of causality between the independent and dependent variable is insecure, y may affect x and vice versa. Missing or non-observable variables causes the disturbance term to ‘collect’ the impact of this missing variable and hence cause endogeneity when this is correlated with other independent variables (Dougherty, 2011).

then the broadband accessibility variable will have a significant impact on the dependent variable with the other variables not counted for and hence the coefficient will be wrong. Spuriousness will cause the coefficient to be wrong however in models such as the ones used in this study it is impossible to include all variables and hence, as mentioned before the variable correlated with other non-included variables or not, will give an indication of the importance of good communications even if the coefficient do not necessarily reflects the individual importance of broadband accessibility per se.

Simply put a regression is a useful tool in order to analyze relationships between variables from a vast number of observations but the method has limitations, and one should be very careful when interpreting the results and use good sense in the process.

3.2 Small-N case study

There are four cases selected for the small-N study where two of the cases have reversed a negative population trend and two of the cases have experienced a worsened situation. The use of cases allow me to investigate more thoroughly what policies against depopulation the municipality have initiated and also how they think about the problem. This will be addressed using descriptive statistics to provide background information about the municipalities' populations and other information about the policies used by the municipalities. Interviews will be carried out with representatives from every municipality in order to get a deeper insight into how the municipalities address the issue of population change. The interviews allow for follow-up questions and it is the best method to use in order to understand a phenomenon as complex and difficult as depopulation where every municipality works differently with the issue.

3.2.1 Choice of cases

I have chosen the four municipalities Fagersta, Smedjebacken, Mellerud and Sunne where the two first are "good" cases and the two latter "bad" cases in terms of different outcomes of the dependent variable of population change. The advantages of this setup is that, as was pointed out in section 2.2.3, there is a lack of 'less successful' cases when it comes to municipal research. The 'less successful' municipalities might do the same things as the successful ones and then these things shouldn't affect success or not, or if other circumstances play a part. If I want to answer how municipalities work with depopulation and choose two 'good' and two 'bad' cases that makes comparisons more interesting and also enables a discussion regarding the effectiveness of policies, which would have been harder with cases only from one of the two categories.

My method for selecting “good” and “bad” is their relative change in population during the period 1998-2006 and 2006-2013. The reasons for the choice of periods are because they coincide with the election terms for government and therefore the period where a municipal government can issue a policy implementation. The most important period is the latter where all of my cases have had the same government a consecutive period since 2006 and hence that period to launch and implement a policy aimed towards reversing depopulation.

All of the cases have experienced more or less population decline between 1998 and 2006 but where Fagersta and Smedjebacken found a way to reverse the negative trend and have experienced a better population situation since 2006, Mellerud and Sunne’s population decline has accelerated since 2006. When all cases have experienced population decline but two of them has reversed the trend, this makes the study more interesting since it increases the chance of finding something different in the acts and policies between the various municipalities, hence also indicating that the municipalities are working under similar conditions.

Table 1; -The municipal government the last 8 years

Municipality	Government 2006-2013
Fagersta	Left party majority (V)
Smedjebacken	Left majority (S+V)
Mellerud	Alliance minority (M+C+Fp+KD)
Sunne	Alliance majority (M+Fp+C)

Table 2; -The population of the municipalities respectively

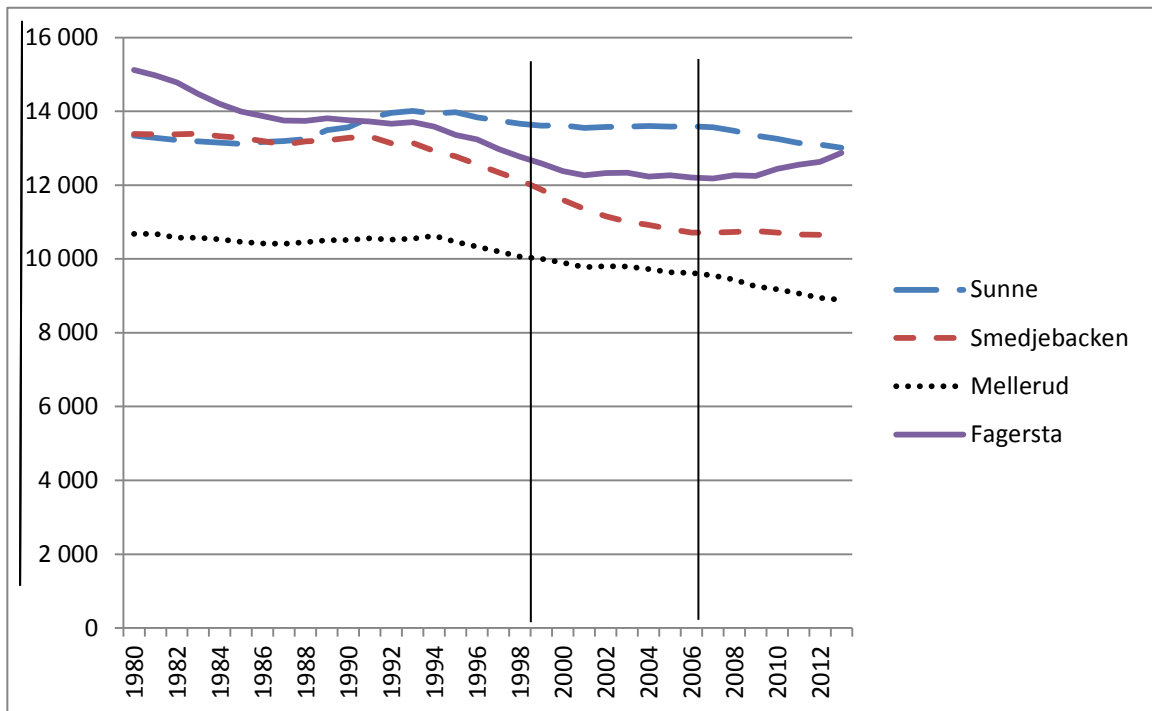
Municipality	Pop 1998	Pop 2006	Pop 2013
Fagersta	12 773	12 202	12 872
Smedjebacken	12 135	10 715	10 691
Mellerud	10 065	9 623	8 892
Sunne	13 665	13 591	13 011

Table 3; -The relative population change in the two 8-year periods respectively and the difference in percentage points between the two periods

Municipality	1998-2006	2006-2013	Difference % points
Fagersta	-4, 7 %	5,2 %	9, 9
Smedjebacken	-13, 3 %	-0, 2 %	13, 1
Mellerud	-4, 6 %	-8, 2 %	-3, 6
Sunne	-0, 5 %	-4, 5 %	-4

Table 3 shows the relative change in 2006-2013 compared to 1998-2006 which has been very positive in Fagersta and Smedjebacken with a positive change with 9, 9 and 13, 1 percentage points. At the same time Mellerud and Sunne has accelerated their population decline with -3, 6 and 4 percentage points, placing them in the bottom of all the municipalities when it comes to the relative population-development the last 8 years whereas Fagersta and Smedjebacken have had among the best relative development of all rural municipalities.

Table 4; -The population development of each municipality from 1980-2013



In table 4 one can see the population development of all the municipalities since 1980. Every municipality has faced a negative population trend except Sunne who had a relative stable population level until 2006 when it started falling. The two vertical lines intercepts the two years 1998 and 2006 which are the beginning of the two periods I use as my reference points for my cases. One can clearly see that Fagersta and Smedjebacken have downward slopes between 1998-2006 which then increases for Fagersta and levels off for Smedjebacken. For Mellerud and Sunne the lines go increasingly downward for both municipalities, even if Sunne were almost flat between 1998 and 2006.

A map of the municipalities of mid-Sweden. The municipalities used in the study are underlined with the ones with a reversed trend to the east and the other to the west



This map of mid-Sweden is for the reader to get an idea of where the municipalities in my case are located. They are not located very close to a larger city area nor are they located in a very remote scarcely populated area. None of them have an exceptional feature making them especially attractive to live in, like being a hub for infrastructure or commerce.

3.2.2 Interviews

The interviews are carried out with municipal representatives who know about how the municipality works to attract new inhabitants and generally address the problem of depopulation¹⁹. The interviews are made per telephone and took about 20 minutes to conduct. They are semi-structured which means that the questions are specified and follow a chart but leave also room for follow up questions which are asked for clarifications and elaborations²⁰. This method enables comparisons between the different interviews as there will be a variation in the quality of information that is generated in each interview (May, 2011, p134-135). My position as the interviewer can be described by a metaphor used in Kvale (1997) as a ‘prospector’ searching for chunks of objective and meaningful facts that contribute and increase the knowledge about depopulation policies. These facts should be ‘pure’ from leading questions, something that I am careful not to do during the interview, and later processed through analysis to be valued and compared to the objective world (Kvale, 1997, p 11-12).

¹⁹ The identity of the interviewees may be revealed to relevant person if requested.

²⁰ The questions asked can be found in appendix 1.

Something that needs to be considered is understanding the position of the interviewee, if they are involved in a policy and has an interest in its success then they might claim that the positive development depend on the policy when it in fact is completely different variables that are more important to the outcome. Therefore my questions will be more factual than asking for the opinions of the interviewees. The discussion of the impact of different variables will be conducted in my analysis with an overall judgment with all data and variables included both statistics and the interviewees' answers, not during the interviews.

Another issue is accessibility, whether or not the person answering the questions has access to the information that I seek (May, 2011, p 141). Due to time-constraints I only interview one person from each municipality and this is one serious limitation to my study. The answers I get from the interviewee about the policies of the municipalities is interpreted by me as facts about what the municipality actually is doing, while an interview with a different representative from the same municipality might answer differently or they would put emphasis on different policies used.

3.2.3 Some words on objectivism

A study like this one containing much quantification and the strife for objectivity, and generalizable knowledge categorizes itself to the positivistic research tradition which can be said to have dominated the quantitative empirical research, and whose dominance might not be discovered until one encounter the issues a qualitative research method like interviews - with its data made of language - contains (Widerberg, 2002, p 24-25) (Kvale, 1997, p 63). The objectivity of the knowledge produced in an interview must be discussed in terms of intersubjectivity where the data produced needs to be able to be tested and reproduced by others. Even if completely identical data cannot be reproduced, somewhat similar result should and this can be called an arithmetic intersubjectivity (Kvale, 1997, p 65).

Hence, inspired from Bernstein described in Kvale (1997), I will attempt to achieve the objectivity required in order for me to merge the data I get from the interviews with the quantitative data, through a rational argumentation derived from the interview data and arithmetic intersubjectivity (Kvale, 1997, p 66). Even if different epistemological assumptions may be associated with the different methods, these differences make not a merge impossible and one can say that the quantitative characteristic of the study is the 'leading' one (Bryman, 2001, p 410-411).

3.2.4 Descriptive statistics

The statistical data used in the case study, like in the large-N study, come from the Swedish statistical agency, the municipal and regional database and the board of agriculture. The reason these statistics are used is to provide information

regarding the dependent population variables and the independent welfare variables of the municipality in order to deepen the analysis. The same set of 12 variables as in the large-N analysis is used.

3.2.5 Frame of analysis

The material and data collected will be divided into the three parts of the framework of analysis described in Tillväxtanalys (2011), (1) *Conditions*, (2) *Core functions* and (3) *Strategies for increased attraction* in order to categorize and discuss the policies. This categorization opens up for a more structured discussion of various strategies the municipalities have against depopulation and the categorization divides the mandatory obligations of a municipality with the additional actions it may take in the interest of its citizens²¹.

3.3 Source criticism

The vast majority of the statistical data used in this study are ‘official statistics’ which refers to data collected by the state and its 25 agencies (scb 3). These are to be objective and made public and available for everyone by law. The Swedish statistical agency has a council established in order to oversee questions regarding its availability and quality and there are guidelines to be followed by the agencies gathering the statistics to ensure its quality (scb, 2006, p 16).

May (2011, ch 4) brings up a number of issues with using official statistics that one should be aware of when using them. The issues are naturally dependent on what kind of statistics you use and what you are using them for. One issue can be for example whether or not unemployment is defined the same way in Fagersta as in Sunne and whether the statistics are properly gathered? The statistics used in this study are reasonably straight forward and well defined. The definitions of an unemployed person is well established in Sweden and so are many of the other variables as well like educational costs which are properly reported in all municipal budgets. The Swedish statistical agency has actually also the longest experience of gathering statistics about its population in the world and its predecessor ‘Tabellverket’ started gathering coherent statistical tables in the year 1749 (scb 4). The statistic used in this study is regarded as reliable.

For source criticism on the interviews see section 3.2.2.

²¹ See section 1.2.2 for elaborations on the matter of the mandatory and additional policies of a municipality.

3.4 Limitations of the study

As described in section 1.4.1 on delimitations my study focuses on policies with disregard to their exact characteristics and implementations. This enables a quite broad but shallow analysis, which would have been even shallower without the small-N study. Hence the study enables some attempts to generalize regarding policies however leaves out much about the importance of other qualitative implementation factors that impact whether a policy is successful or not.

The large-N study contain many limitations that are discussed in section 3.1.5 which limits what conclusions you can draw from such a study even if the data and regression analysis is correctly performed. The number of variables affecting a complex phenomenon like population change are simply too many in order to create a model that can describe the reality accurately.

The small-N study, as described in section 3.2.2 have the largest limitation in terms of the relative small number of interviews conducted in order to make a just judgment of how the municipality work against depopulation. The interviewee can be biased in terms of their work tasks and emphasize these over other policies her or his colleague might work with to a larger extent, or they might forget things or just leaves them out for some reason. The point is that the discrepancy between how the interviewee describe how the municipality works against depopulation and how the municipality actually work against depopulation might be large and there is no way to control for it without making a much larger and deeper study, which due to time-constraints are not made here.

This is important to remember throughout the study and although the material collected is depicted as 'objective' in itself, the results from the analyses are not a description of reality, but a description which reflects the material collected.

4 Large N study results and analysis- What rural municipal policies affect population change?

The question will be answered with the results of the regressions being presented and analyzed respectively. The analyses will be made with a point of departure from theory and the assumptions made about the variables in section 3.1.3 without taking too much consideration to the limitations discussed in section 3.1.5. The section will be summed up with a critical discussion with more consideration taken to the limitations.

4.1 Regressions and analysis

Below the results of the two regressions and its respective analysis are presented where the coefficient, standard error and significance level of each variable is charted. Adjusted R2 is used due to $n < 200$ (Djurfeldt et al, 2010, p 318) and values on heteroskedasticity and multicollinearity are also presented²².

²² Heteroskedasticity happen when the variance of the disturbance terms of the different observations is not equal and might depend on x, which will cause the value of the standard error to be wrong. Multicollinearity is a problem when the independent variables are correlated to a large extent which causes the coefficient and standard error values of the correlated variables to be wrong (Dougherty, 2011, ch 3 & 8).

Regression 1. Dependent variable: Population change

Variable	Unstandardized Coefficient (Standard error)
Education costs per capita	9,126E-6 (,000)***
Elderly care costs per capita	-1,052E-6 (,000)***
Broadband accessibility	,030 (,011)**
Foreign born population	,000 (,000)
Information index on webpage	,001 (,000)***
Unemployment rate	-,006 (,001)***
Newly registered businesses	,007 (,002)***
Tax rate	-,004 (,002)*
Availability primary-schools	-,076 (,022)**
Availability health-centers	-,022 (,013)
Municipal government	,003 (,004)
Municipal government shift	,005 (,004)
Adjusted R2	,681
Heteroskedasticity²³	No signs of larger heteroskedasticity from plot ²⁴
Multicolinearity²⁵	All VIF-values < 2 =>No major multicollinearity in model ²⁶

***p<0.001, **p<0.01, *p<0.05

²³ See appendix 2 for plot.

²⁴ A plot with an even scattered distribution of residuals is an indication of small heteroskedasticity, which is reasonable in this model considering the characteristics of the data used where the sizes of the municipalities are not reflected in the data.

²⁵ See appendix 2 for values.

²⁶ VIF values < 2 are indications that the model is not very affected from multicollinearity (Pallant, 2013, p 164).

4.1.1 Regression 1: Analysis

The first regression show many variables that have a significant impact on the population change. The adjusted R2 is relatively high and about 68 % of the variance in the population change variable can be transferred back to the independent variables. The variables that have a positive impact on population change are high education costs per capita, high broadband accessibility, high information index on webpage and many newly registered businesses. These are not surprising results and in large confirms that investments in schools encourages both families with children to move to municipalities who invest in schools and people are encouraged to have children if they know that the municipality prioritize schools. High broadband accessibility and good infrastructure makes life in the municipality easier and so do a high information index on the webpage where residents can know what is going on in the municipality and in-movers can get the information and help they need in order to make a decision to move. Many newly registered businesses indicate a good business climate and a vibrant municipality where people can live and make a living.

The variables with a significant negative impact on the population change are high elderly care costs, high unemployment rate, high tax rate and a high share of the population with a long distance to the closest primary school. Again, these are expected results even if the issue of the direction of causality becomes very evident here. High elderly care costs per capita indicate investments in the elderly, however when a population gets older then new investments need to be made, for example new recruitments of nursing staff which increases the marginal costs, and the high costs per se do not cause people to move, die or have fewer children.

The negative impact of high unemployment rates indicate the evident importance of residing where you are able to work and make a living. The high tax rate maybe has an impact on people who are very sensitive about their personal economy, but the direction of causality is an issue here as well. The service of closeness to schools is probably important and families should be discouraged to move to or have children in a place where the schools are far away from home.

The variables which do not have any significant impact in this model are the amount of foreign born in the municipality, the availability of health centers, the color of the municipal government and political stability, whether or not there was a shift in the municipal government in the year 2006. The last variable is a difference to the study by Growth analysis (2011) however the variable used in this regression is very crude and it is likely that other variables on political stability might have a significant impact.

In another regression I made with similar variables with all 290 Swedish municipalities the foreign variable was positively significant, and this indicates that the foreign in-movers do not compensate for the rural population loss yet. Since the cities have a larger proportion of foreign born it is likely that they in themselves attract foreign born and hence the foreign born in the rural areas are too few to have a significant positive impact on other foreign in-movers yet.

Regression 2. Dependent variable: Net in-movers

Variable	Unstandardized Coefficient (Standard error)
Education costs per capita	-4,633E-8 (,000)
Elderly care costs per capita	-7,489E-8 (,000)*
Broadband accessibility	,003 (,001)*
Foreign born population	-5,239E-6 (,000)
Information index on webpage	,000 (,000)***
Unemployment rate	,000 (,000)
Newly registered businesses	,001 (,000)***
Tax rate	-,001 (,000)***
Availability primary-schools	-,004 (,002)
Availability health-centers	-,002 (,001)
Municipal government	,000 (,000)
Municipal government shift	,001 (,000)
Adjusted R2	,517
Heteroskedasticity²⁷	No signs of larger heteroskedasticity from plot
Multicollinearity²⁸	All VIF-values < 2 =>No major multicollinearity in model

***p<0.001, **p<0.01, *p<0.05

²⁷ See appendix 3 for plot.

²⁸ See appendix 3 for values.

4.1.2 Regression 2: Analysis

The second regression shows that fewer variables have an impact on the net in-movers to the municipality. The adjusted R² is lower in this regression and about 52 % of the variance in the net in-movers variable can be transferred back to the independent variables which makes this model less ‘strong’ than the previous one. The ones with a positive impact are broadband accessibility, the information index on the webpage and newly registered businesses. As described in the theory section, in-movers appreciate good communications and hence broadband prove to be of significantly positive impact. The coefficient of the information index variable is very small but significantly positive when looking at the standardized beta coefficient of the output. As mentioned before it should be reasonably important for in-movers with good information on the website. Newly registered businesses and vital commerce show to be of importance for in-movers as well

The variables with significantly negative impact are elderly care costs and the tax rate. As mentioned in the previous regression analysis the direction of causality can be discussed here however it is interesting whether the tax rate of the municipality is something in-movers are considering when deciding to move to another municipality.

It is surprising that the unemployment rate did not have a significant impact on in-movers since high rates should contribute to a negative net in-moving. The variable has a negative coefficient but with $p=0,058$ it barely miss the cut of the 95 % significance level I have chosen. The accessibility variables do not have any significant impact either and neither has the foreign or political variables.

4.2 Discussion

In previous studies and as described in section 2.1 it is suggested that people move where the municipality offers a good living environment, decent schools, good communications, have a good geographic location and if it can offer employment. The study by Growth analysis (2011) showed a positive correlation between growth and social capital, a positive business climate and political stability. The variables geographic location and social capital are not encompassed in this study but for the rest there are indications that good and available education, good communications, good business climate and employment do matter for population change, and good communications and business climate matter for in-movers. These are reasonable results and hardly surprising.

Further results from both regressions are the importance of providing good information about the municipality on the website, which probably simplifies the decision to move for people. The tax also plays a part where the direction of causality might be contested, however it might be of consideration for people when making a decision between several municipalities.

Lastly the foreign variable was included due to the theory that foreign born people are attracted to municipalities with other foreign born (of the same origin as them) and this were of no significance for rural municipalities. With this being said the ability to attract foreign born people are naturally always positive to the population change however it was interesting to see that the proportion of foreign born in rural municipalities are still too small for that variable to have a significant relationship with population change or net in-movers.

Considering the discussion in section 3.1.5 one must be very careful about the interpretations of the results of the two regressions and use common sense to analyze the results. If the two analyses in section 4.1.1 and 4.1.2 discussed the coefficients with starting point from theory, a discussion of the coefficients from the reality becomes quite different. As discussed in section 3.1.5 you cannot simply put data in a regression and magically find relationships without considering all limitations deriving from the assumptions made of the data and variables and whether they hold or not. As mentioned the issue of endogeneity and spuriousness are quite present in the models used and they can affect the results greatly. A long discussion of the direction of causality, missing variables and correlations can be made with each of the individual variables, but due to space and time constraints this is not reasonable to do and it would be strange to do it with some variables and not others, examples of such reasoning is in section 3.1.5.

It will do to state that population change is a very complex issue with innumerous different factors and policies that may affect the development. The results from the regressions are reasonable and relate well with theory even if the limitations of the method make the exact values quite unreliable and must be considered using common sense.

5 Small-N study results and analysis - How do rural municipalities work against depopulation?

First the four municipalities will be shortly presented in terms of a brief history which is together with some population statistics supposed to give a very schematically picture of the conditions under which the municipality is working. After comes a presentation of how the municipalities work with population changes based on the material from the interviews. Everything in those sections on how the municipality works with population changes is based on the interviewee's answers and hence not exactly how the municipality objectively works with population changes. Each municipality is presented respectively and lastly comes a comparative analysis of all municipalities together with a final discussion.

5.1 Fagersta

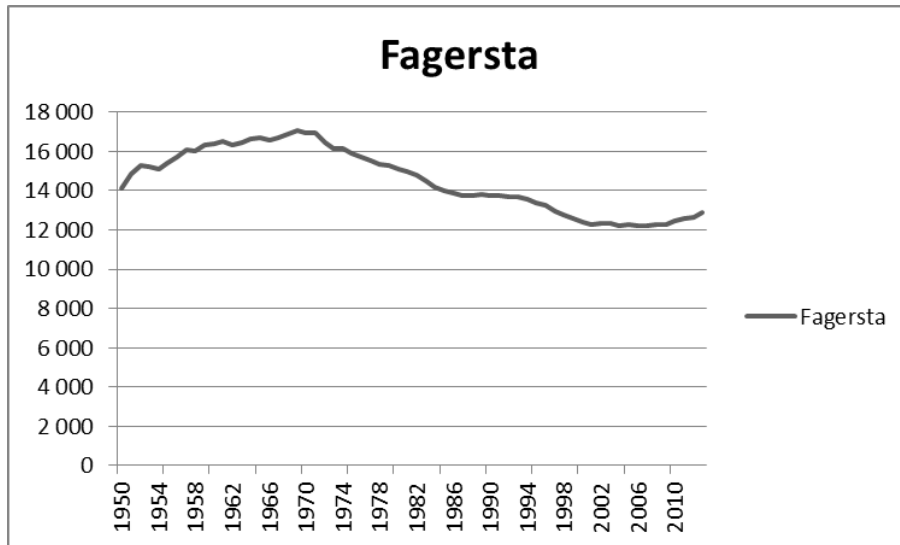
Fagersta is an old industrial town for raw commodity processing located in the region Västmanlandska Bergslagen. The region is called "Bergslagen"²⁹ due to the regions' various mineral foundations and important iron ore mining facilities with roots from the 17th century (NE, 1991). The vast expansion of the town began in the beginning of the 20th century when Sweden began to industrialize and the importance of the local steel-industry "Fagersta bruk" grew. Fagersta bruk flourished during and after the Second World War until the steel-crisis of the 1970: s when the raw commodity processing eventually was shut down and the industry restructured to more sophisticated refinement of steel products (NE, 1991) (Fagersta 1). Today's industry in Fagersta seem to go decent even if the number of people employed within the manufacturing industry, which constitute about 43 % of the working places (ne.se), is less than in the industry's prime (fagersta.se) and from the interview it is claimed that it is much more difficult to get a job in Fagersta nowadays than before.

Fagersta has been governed by the Left Party (Vänsterpartiet) since 1998 and since 2002 with single majority (Fagersta 2). This is very unusual and Fagersta is

²⁹ In English "The mountain law" (my translation).

currently the only municipality in Sweden where the left party is governing on its own.

Chart of the population development of Fagersta 1950-2013

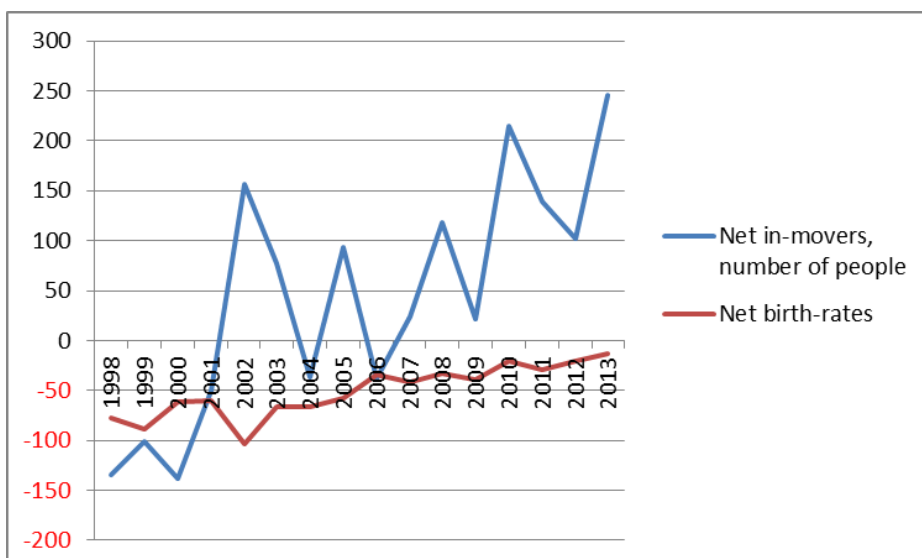


The

population development of Fagersta is interesting to see in the background of the history of the industry where the population peaked in 1969 with a population of 17 041 people when the industry was at its prime, and then declined steadily until the record low of 12 183 people in 2007. Since then the population has grown and in 2013 the population was 12 872 people within the municipality.

The population development of Fagersta is very typical of Swedish old industrial towns but the extraordinary thing is the way Fagersta has reversed the negative population trend. There are other rural municipalities that have had a very positive population trend the last couple of years but those often lay outside a larger city on comfortable commuting distance.

Chart of the development of net in-movers and net birth-rates in Fagersta between 1998 and 2013



The population development since 1998 can be seen above divided into net in-movers on the top line and net birth-rates at the bottom line. The in-movers have steadily increased from a very low level since 1998 to a very high level in 2013. The net birth rates have also steadily increased to almost a positive level.

5.1.1 Fagersta interview

The Fagersta interview was conducted with a person responsible for growth and business issues, and providing the politicians with information for decision support. He has worked for the municipality for seven years and knows well about the population development in Fagersta.

Fagersta does not have a particular strategy for population growth, but try to be attractive through being good at the municipality's core functions. Such as schools, elderly care, good cultural activities and good communications. Fagersta also tries to establish good housing in attractive locations, but the difficulties of low real estate prices and high building costs hampers those ambitions. The municipality does not have a specific population-goal since they do not feel this is meaningful to have. If the young wants to move and see new things that is fine, but Fagersta should be an attractive municipality for them to return to and easy to have a life in.

For the moment Fagersta has a positive population development, and that is mostly because of foreign immigration. This demands investments in schools and pre-schools and impose strains on housing and the employment supply. The interviewee claims that it is more difficult to get a job nowadays than before when the local industry was larger, and this is a challenge for the municipality.

Despite an ageing population, 23, 5 % of the inhabitants are above 65 years of age (22, 7 % nationally), Fagersta does not have any specific preferences about what in-movers they want to attract. The municipality cannot choose what people that moves in anyways and the last six years it has been a positive net-migration to Fagersta (on average 124 people per year).

For in-movers, the main thing that makes Fagersta attractive would be its relative good communications with the cities Örebro and Västerås an hour away, and other cities like Borlänge, Falun and Sandviken are quite close which gives Fagersta a location of being a "place in the middle". The manufacturing industry also attracts where Fagersta has positive daily net-commuting figures, and there are desires to attract these commuters to settle in Fagersta with for example good housing in attractive locations. However the low real-estate prices and high building costs impose a problem here.

Cooperation with other actors like neighboring municipalities, the region and national agencies are rather common. Cooperation makes the municipality's job more efficient and enhances the quality of the services provided; this in turn helps to attract qualified labor to Fagersta. As the interviewee says: "it is easier to attract a structural engineer if you are 40 000 than 15 000 inhabitants".

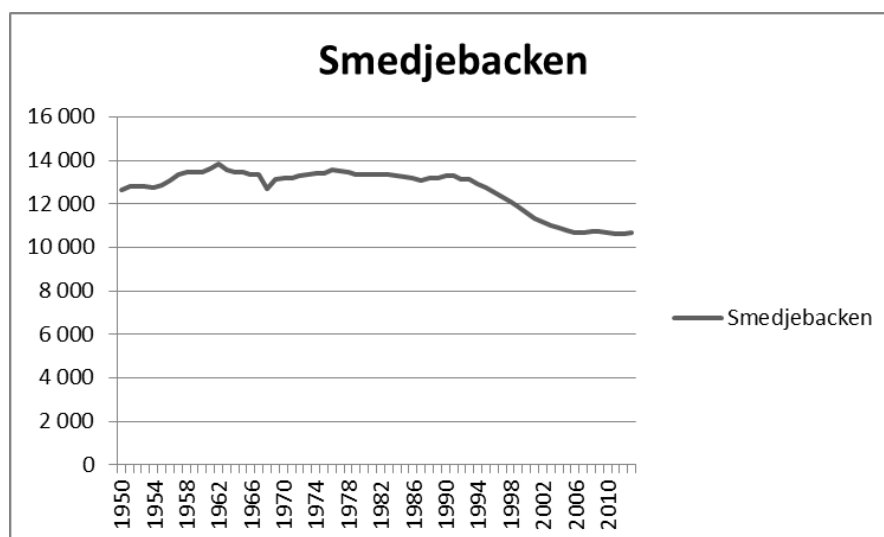
In terms of immigration policies, Fagersta has an agreement with the migration board to take care of 20-30 refugees annually. The many foreign in-movers are citizens and people with residence permits who move to Fagersta voluntarily, often encouraged by relatives already residing there and hence not a conscious policy from the municipality. The interviewee explains this with Fagersta's experience with foreign in-migrants and ability to get these people quickly into labor. However the large quantity of foreign in-movers, where there are more people going to Swedish for immigrant classes than there are gymnasium students, cause several challenges for the municipality to deal with. There is a shortage of accommodations and whether or not the in-movers are able to get a job and integrate with Fagersta is identified as a key-issue. If going well, these people are a huge asset and a great resource for the entire municipality.

5.2 Smedjebacken

Like Fagersta, Smedjebacken lie in Bergslagen but in the region Dalarna to the North-west of Fagersta. Smedjebacken was also built around the mining, steel and manufacturing - industry and the old company Smedjebackens Valsverk with roots from the 19th century is still the largest industry within the municipality (NE, 1993).

The Social Democrats (Socialdemokraterna) have traditionally been the largest party, often with single majority and have governed the municipality together with the left party since 2006.

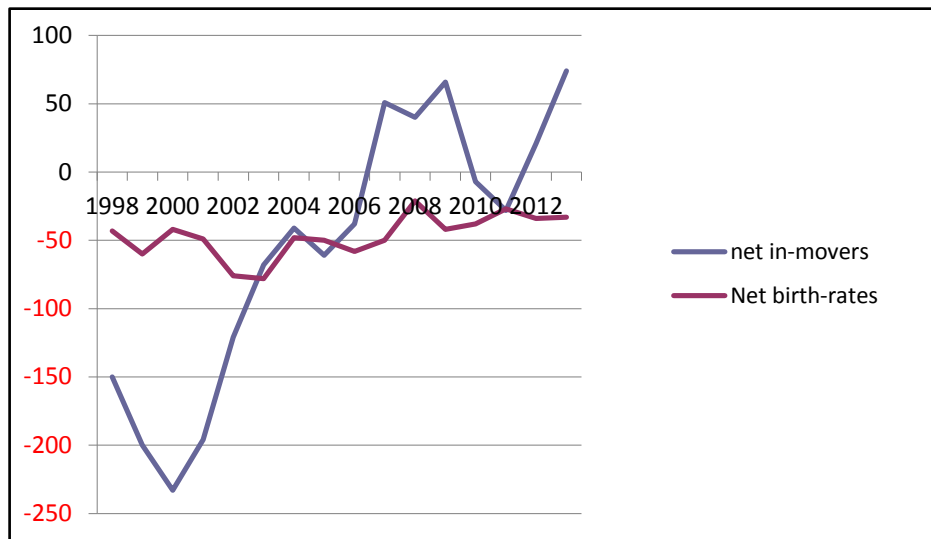
Below is a chart of the population development of Smedjebacken 1950-2013



The population of Smedjebacken kept quite stable around 14 000 inhabitants until 1991 when the population fell from 13 315 inhabitants to 10 715 inhabitants in 2006, according to the interviewee as a consequence of closures in the local

industry. Since then the population has continued to fall but at a much reduced pace with only a total of 29 individuals to 10 691 inhabitants in 2013, a clear break to the negative trend.

Chart of the development of net in-movers and net birth-rates in Smedjebacken between 1998 and 2013



The net in-movers have steadily increased from a very low level since the beginning of the millennia and with the exception of a fall during the economic crisis of 2009-2010 the net in-movers has kept positive since 2006. The net birth-rates are negative but have also slightly increased.

5.2.1 Smedjebacken interview

The interviewee works as a city-architect and has worked for Smedjebacken municipality for about two years. The job is very varied and includes many assignments, for example working with local plans and in the near future also more comprehensive municipal plans. In the work towards a more comprehensive plan about the municipality it is included a population perspective where you are aware of the population development and what people that resides in the municipality.

Smedjebacken has a positive view of the future for the local industry and labor market and hence has a focus on producing attractive housing, for example lakeside, in order to attract qualified labor. The attractive location makes up for the high building costs and increases the value of the house more than if it had been built in a less attractive location. The municipality work with marketing in some sense and tries to present a positive picture of the municipality in some regional contexts. Also local cultural people, posters and newspaper ads promoting the municipality has been used.

The municipality has undergone a restructuring from being very dependent on one major employer to have additional smaller businesses beside the largest employer Ovako, a steel manufacturer who employs 350 people in Smedjebacken (ovako.com). This has reduced the vulnerability of the community in case something happens to Ovako and the municipality tries to have a dialogue and support these small businesses in various ways, for example with guidance and networking. The interviewee mentions the currently good situation for both the local and regional industry as a key reason for reversing the former negative population trend.

In order to make residents stay the municipality has invested in the schools and elderly care. A priority is to attract families and Smedjebacken try to have a holistic picture and invest in broad areas in order to make life in the municipality as easy as possible. Smedjebacken do not have any specific population goal but regard the issue of population development as an important issue and the municipality is satisfied with reversing the former negative population trend. To be able to attract qualified labor for the industry is a challenge but a vital issue for the municipality.

Positive properties of Smedjebacken are that the smallness of the municipality makes the distance between politicians and citizens minor and the cultural and voluntary sector is vibrant, it is easy to get involved with the community and feel welcome here. Other upsides are good communications and cheap housing which makes it easy to build a life in the municipality.

Smedjebacken has many cooperations with other actors and the interviewee mention networks with community planners in the region, meetings with neighboring municipalities in housing issues, study visits, water and cultural cooperations.

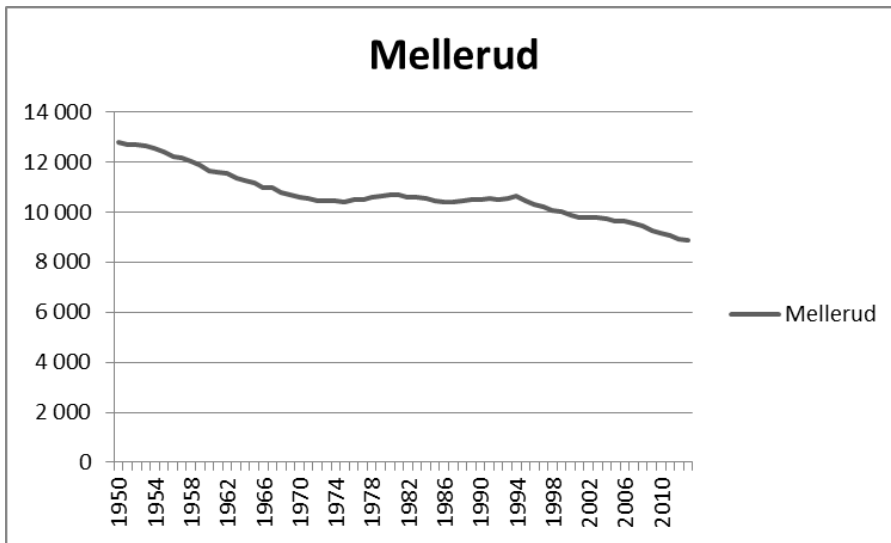
Smedjebacken helps foreign immigrants and unaccompanied minors in various ways, like housing, language courses and other cultural activities. Foreign immigration has so far not been a theme in overview planning but will be so in the upcoming construction of a new plan.

5.3 Mellerud

Mellerud lie in the region Dalsland at the western bank of the lake Vänern and the municipality has old industry traditions within ironworks and pulp-production (NE, 1993). One attraction of the region is the Dalslands canal and the aqueduct near Håverud is the biggest attraction in the municipality with about 110 000 visitors per year.

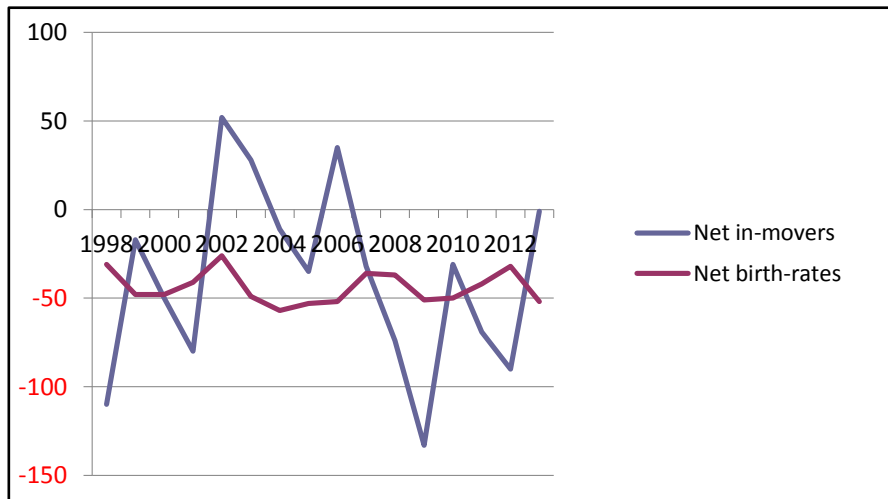
Traditionally the Center Party (Centerpartiet) has been popular in Mellerud and the municipality has been governed by a center-right minority coalition since 2006.

Below is a chart of the population development of Mellerud 1950-2013



Mellerud had a quite stable population of about 10 500 inhabitants between the years 1970 to 1994. Since 1994 the population has declined and since 2006 with an increasing pace, leaving the municipality with a population of 8900 inhabitants in 2013.

Chart of the development of net in-movers and net birth-rates in Mellerud between 1998 and 2013



After a tough period in the second half of the 1990: s, Melleruds net in-movers were slightly positive during some years in the beginning of the millennia but have thereafter declined to be negative since 2006. The birth rates has kept steadily negative.

5.3.1 Mellerud interview

The interviewee has worked for the municipality for about six months, is aware of the population development and work with business development, tourism development and marketing.

Mellerud has just developed a new marketing plan with its main focus on attracting new residents to the municipality. The plan focus primarily on existing residents because they are the best ambassadors for the municipality, secondly on families with children in cities within neighboring municipalities and lastly on Dutch citizens and families. However these are new marketing plans and have not been used before even if they already can see some results in Dutch people moving to Mellerud. The municipality provides some help finding housing to Dutch in-movers but not to others at the moment, even if that is a part of the new plan. The interviewee hopes that the results of the new plan can be seen in a couple of years and reverse the current negative population trend.

The municipality recognizes that many younger people moves from the municipality for various reasons and encourages this but tries to be a place these people want to return to and settle in. This will be done through increasingly using the capabilities of the municipality to find attractive housing, investing in schools and help with skills provision for businesses. These issues are much prioritized and well embedded in local politics, and are estimated to have been so for the last ten years. Mellerud view these issues with a focus on the long term and hope that the younger people will enjoy living here and return after travels or studies. The reason stated is so that the municipality may live and create conditions that allow people to live their lives the way they want to within the municipality. The municipality wants to be attractive with having a safe environment with closeness to water and good communications for people that want to work in a different municipality.

Mellerud is a part of cooperations with other neighboring municipalities and other larger cooperations in the region with different business development projects. These benefit Mellerud but the smallness of the municipality causes Mellerud to get less involved in the cooperations due to time and staff-limits that larger municipalities do not have. This is a limit emphasized by the interviewee and the municipality wants to work more with business development and enhance their competencies if they could.

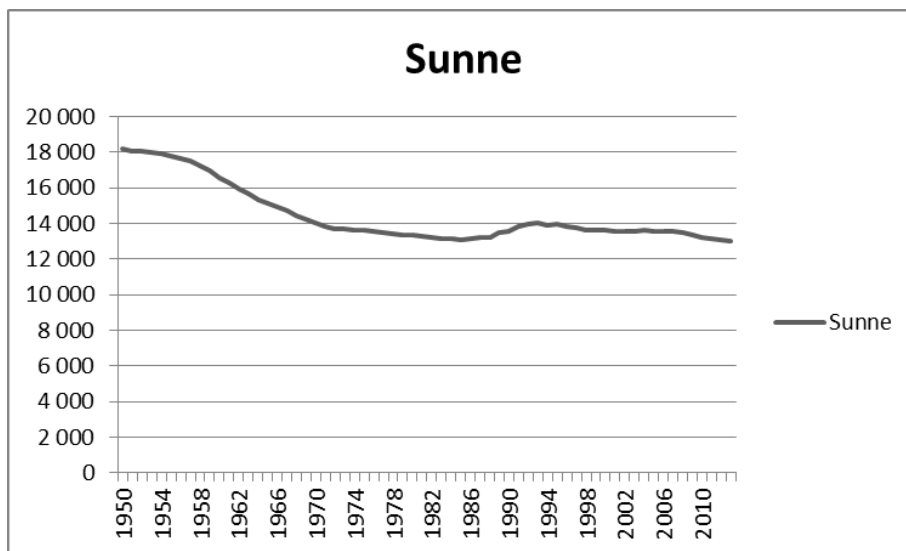
Mellerud looks at other municipalities in order to learn how to get the foreign immigrants to stay and use their competencies locally. The municipality does not have such a plan at the moment but recognize the competencies and potential these people can bring to Mellerud.

5.4 Sunne

Sunne is a municipality with contrasting geography and has both forest-clad mountains and cultivated valleys. Lying in the region Värmland, forestry has historically been the primary industry for the municipality even if today's industry is more focused on manufacturing, pulp-production and tourism (NE, 1991). Sunne was ranked the 56th best tourist-municipality in Sweden in 2008 based on a number of variables such as amount of visitors and revenues from visitors (Svensk handel, 2009). Sunne also has a smaller community college oriented towards graphic design with about 130 adult students.

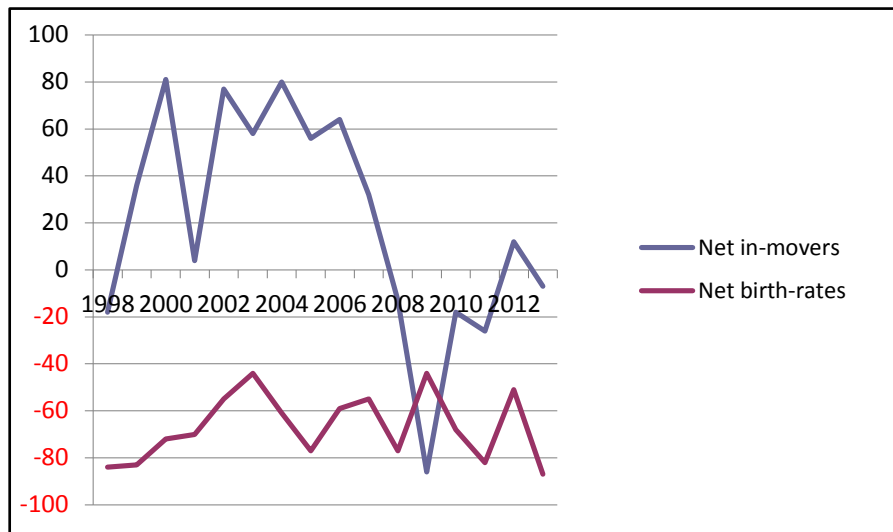
Like Mellerud the Center Party has traditionally been popular in Sunne and the municipality has been governed by a center-right majority coalition since 2006.

Below is a chart of the population development of Sunne 1950-2013



The population development of Sunne has generally been stable since the beginning of the 1970: s and 2006. Since then the population has declined with about 600 people and even if Sunne has far from catastrophic population figures, the recent negative trend is a clear break from the earlier stable development.

Chart of the development of net in-movers and net birth-rates in Sunne between 1998 and 2013



Sunne is characterized by relatively low net birth-rates and until 2006 relatively high amount of net in-movers. Since 2006 the sudden drop of net in-movers the first years has somewhat recovered and has been slightly positive during 2012.

5.4.1 Sunne interview

The person interviewed has worked for Sunne municipality for about ten years and has previously worked with business development and currently more towards strategically growth issues, strategies to increase in-moving and citizen dialogue within the municipality. The person is well aware of the population development of the municipality for the last twelve years.

Sunne has made some comprehensive studies regarding how both residents and people living outside the municipality view Sunne and what they think about the municipality. Dialogue with vacation home-owners was established with the goal of attracting them to be full-time residents through presenting Sunne as a good place to live in, work in and study in. Sunne do not believe in general marketing with vague general messages but rather invests in activities, for example sport events that give the municipality attention in the medias. However some representational activities together with the region in the major cities in order to be seen and noticed have been made

Sunne work a lot with citizen dialogue in order to identify what the municipality is doing well and what they can improve. This is also done with different age-groups in order to identify the needs of people within different ages. Rather unconventional activities like dinner home-parties for those that want to be initiated and the municipality is emphasizing the importance of making people feel welcome in the municipality and to feel like a part of the local community.

Sunne recognizes that their population recently has diminished and the importance of a positive population development is anchored within the municipal

organization. It is however expressed that there are some difficulties within the municipality when it comes to be able to set aside funds to work with these questions in the desired extent. Sunne has worked with these questions since the beginning of the millennia and had in a strategy back then a population goal of about 15 000 inhabitants, compared with the about 13 000 that lives there now.

The needs of Sunne in term of future labor will be large and to be able to be a living and vibrant municipality they need more in-movers in order to replace the soon-to-retire current working force. Despite this the desired in-movers are everyone and Sunne express no preferences regarding who they want to move there. Even certain projects aimed at attracting older middle-aged residents have been made and they believe everyone has something to contribute to the community.

The municipality has a lack of proper accommodations for people and that hampers efforts to attract people because they cannot use housing as an argument for people to move in, even if they wait for new construction to take place. However Sunne has beautiful nature with a ski resort and a high ranked business environment to attract people.

Sunne realized that there are not so many people that knows about the municipality and hence works to be associated with its region Värmland which has a stronger and more known trademark among people. Other cooperations with municipalities also take place because Sunne cannot provide all competencies required all by itself.

Some improvements can be seen in the population figures lately and Sunne hope that their work towards their residents will give more results in the future. The municipality gets inspiration from and uses research on population development in their work and has amongst others become inspired by Richard Florida, Stefan Fölster and other centers for regional research in Sweden. Sunne is a municipality that is not afraid to try new things and have for example invited large parts of the population to the ski resort where citizens could meet the politicians and experience more of what the municipality has to offer.

Sunnes ambitions to make everyone feel welcome are a part of their overarching vision and this includes the reception of foreign immigrants where a noticed citizen initiative called “with the heart in Sunne³⁰” organizes meetings over some food with foreign newcomers. The municipality encourages such initiatives and believes that diversity is valuable and that it is important to always improve the work with integration.

³⁰ My translation of ”Med hjärtat i Sunne”.

5.5 Analysis – Similarities and differences

The analysis of how the municipalities work with population change will be carried out with inspiration from the framework used in the report by Tillväxtanalys (2011) consisting of the three parts: (1) Conditions, (2) Core functions and (3) Strategies for increased attraction. I find this framework suitable for a review of the policies used by the four municipalities and due to the similar conditions the municipalities are facing, the emphasis will lie on the two latter of the three parts.

5.5.1 Conditions

The conditions of a municipality consist of national policies, legislation and regulation on national or supranational level and geographic location which is very hard for the municipality to affect by itself. The national policies and regulation are the same for all municipalities but the geographical location is naturally different for every municipality. The conditions of the municipalities are similar in the sense of similar populations and distance from larger cities. The main town of Fagersta is bigger than the other which can give some advantages with regard to the provision and accessibility of services. Fagersta town has about 11 000 inhabitants, Smedjebacken and Sunne town about 5000 and Mellerud town about 3700 inhabitants. Any thorough investigation regarding other conditions of the municipalities has not been made but since they all have faced either previous or current depopulation their conditions are not very likely to have any profound differences when it comes to population changes.

5.5.2 Core functions

The municipalities is required by law to provide some basic services for its citizens and in this paper they are categorized as “core functions” and can encompass most of the basic infrastructure that municipalities can affect and improve by itself which can be its welfare duties, local infrastructure or the attitude toward local established or new businesses. From the interviews Fagersta was the municipality who emphasized these functions immediately when talking about attracting in-migrants, however all municipalities mentioned their importance in order to be a good municipality for people to live in.

Below the variables used in the large-N study are listed with the four municipalities’ values respectively, including the average values for rural municipalities for comparison. These variables combined give us an idea about the different municipalities’ pattern when it comes to strengths and weaknesses in their core functions. However the values give us merely a small indication about their core functions and a much deeper and more comprehensive study is required

in order to make a cumulative judgment about how the municipalities' are handling their core functions.

Variable (average rural municipalities)	Fagersta	Smedjeb -acken	Mellerud	Sunne
Population development (-0,018)	0,052	-0,002	-0,082	-0,045
Net in-movers (0,0009)	0,0082	0,0021	-0,0054	-0,0004
Unemployment rate (6,7)	7,0	5,7	7,7	6,3
Education costs per capita (17 502)	16 274	16 562	16 266	17 861
Availability primary-schools (0,16)	0,06	0,21	0,22	0,25
Elderly care costs per capita (50 405)	49 051	39 247	51 662	52 669
Availability health-centers (0,41)	0,09	0,44	0,53	0,58
Newly registered businesses (4,5)	3,8	3,9	4,2	4,5
Tax rate (21,9)	22,1	22,7	22,7	21,8
Broadband accessibility (0,25)	0,48	0,19	0,07	0,09
Foreign born population (10,2)	20,8	9,4	12,3	6,3
Information index on webpage (68)	68	65	71	79
Municipal government: (Right=1)	0	0	1	1
Municipal government shift: (Shift=1)	0	0	1	0

From these figures it is very hard to see a pattern when it comes to “good” vs “bad” cases and the only variables the ‘good municipalities’ are better in is having higher broadband accessibility, higher availability on services and lower elderly care costs, whereas availability on health services do not have any significant impact on population change and both availability variables do not have any impact on net in-movers. It is hard to assume that these variables would be would be the critical factor that separates the two good and two bad cases when it comes to the dependent variables.

One can note that Fagersta has higher figures when it comes to the availability and service variables, schools, health care and broadband accessibility are all higher than the other municipalities, however this can probably be explained by the largeness of the town of Fagersta which is significantly bigger than the rest of the towns which are smaller with more population spread across other parts of the municipality, hence the less availability of various services. Fagersta also has by far the largest amount of foreign born people which also were confirmed from the interview, but also high unemployment and the lowest numbers of newly registered businesses.

Smedjebacken has, as was said during the interview, low unemployment rates which must be benefitting for the municipality. Smedjebacken has also low elderly care costs per capita.

Mellerud has high unemployment rates and it is the only municipality having a shift in government the last 8 years. Mellerud are below average in most variables that has an impact on population change or in-movers, except of the information index on the web-page which is above average.

Sunne invest a great deal in schools; have many newly registered businesses indicating a good business climate, a relative low tax rate and also an informative web-page. However the municipality is large and hence has far distances to welfare services and relatively low broadband accessibility.

5.5.3 Strategies for increased attraction

The following strategies for increased attraction can be identified from the interviews conducted. The definition of these strategies are very broad but they aims towards attracting either new inhabitants, businesses, tourists, entrepreneurs or capital and it is not included within a municipality’s mandatory core functions.

Fagersta	<ul style="list-style-type: none"> • Good housing in attractive locations. • Cooperation’s with other actors to attract skilled labor.
Smedjebacken	<ul style="list-style-type: none"> • Attractive housing lakeside. • Some marketing efforts. • Cooperation’s within housing issues.
Mellerud	<ul style="list-style-type: none"> • Develops a new marketing plan with focus on attracting in-migrants. • Cooperation’s within business development

	projects.
Sunne	<ul style="list-style-type: none"> • Much citizen dialogue to identify what residents think and to what attract new in-movers. • Investments in activities and events to get attention and promote the municipality. • Various projects to attract previous residents. • Some marketing efforts to be associated with the region of Värmland. • Support of various initiatives to strengthen the local cohesion and a sense of belonging for the residents.

From the interviews Fagersta made clear that they do not use any specific strategy for attraction but focus on their core functions. Nevertheless they mention their efforts to offer housing in attractive locations and cooperations with other actors to attract skilled labor.

Smedjebacken also work toward being able to provide attractive lakeside housing but also do some marketing efforts to promote the municipality in various ways.

Mellerud has just produced a comprehensive plan to attract new residents to the municipality and to encourage the residents to stay. Cooperations with other actors in business projects are mentioned which can be regarded as a strategy to attract businesses, even if the interviewee claims that the smallness of the municipality makes such projects difficult.

Sunne stands out when it comes to strategies to increase attraction and the interviewee mention several very creative initiatives either initiated or supported by the municipality in order to promote the municipality, attract in-movers or simply make new or old residents feel welcome and as a part of the local community.

5.6 Discussion

The methods used to increase population by the four municipalities are quite coherent with theory. Besides trying to be good at their core functions, all of the municipalities used some kind of strategies for increased attractiveness and many also tried to promote themselves in various ways. Attractive housing is something that all of the municipalities at least have ambitions to offer in-movers and even the ones that said that they did not care about the characteristics of the in-movers spoke about the need of attracting qualified labor. The arguments of good communications, affordable housing, beautiful nature and higher quality of life were put forward as advantages of the municipalities and dialogue with in-commuters and vacation home-owners to make them become permanent residents were mentioned. It is also generally regarded that smaller municipalities have a closer relationship between politicians and citizens where the latter have a better

chance of being heard compared to citizens in the larger municipalities, and this advantage were also mentioned by the interviewees.

Cooperations with other actors are used by all of the case- municipalities which were regarded as helpful for the municipalities' activities in a number of areas, including attracting people. However it was mentioned that their smallness hampers them to fully benefit from these cooperations in for example business development.

The role of foreign immigrants for the municipalities was nothing that was specifically mentioned in any of the municipal strategies except of Mellerud who want to attract Dutch citizens. The potential of foreign immigrants were recognized and the importance of good integration in order to make them a part of the local community, and ambitions to learn more and become better of integration were mentioned.

Specific marketing campaigns were not emphasized very much except by Mellerud, even if the need to be noticed made some of them having some marketing activities. Mellerud is the municipality with the most negative population trend and as was pointed out by Nedomysl (2004 & 2006), policymakers there might felt the pressure to act in order to boost local morale and therefore initiated the comprehensive marketing plan Mellerud is about to implement

The most innovative thoughts and methods about population issues stood Sunne for and whether their strategy of extensive citizen dialogue will have any payoff for the population figures future will tell. Regardless the strategy might have benefits in other areas and I must say their methods sound very sympathetic and appealing from a citizen perspective.

Lastly these results are derived from interviews of only one representative per municipality and hence a representation of how that person believes the municipality works with population changes. However since the municipalities are quite small it should not be too many policies the representative can be able to leave out and the eventual discrepancy between how the interviewee describes how the municipality works with the population development and how the municipality actually works with it should not be too large in my opinion.

6 Discussion - What patterns regarding the effectiveness of the rural municipal policies against depopulation can be identified?

This last sub-question will first be discussed with point of departure from the results of both the large and small N study, but with a focus on the case municipalities in order to draw conclusions of the findings from this particular study. Followed will be a broader final discussion with point of departure from previous research and addressing the final question of what a municipality actually can do to reverse a negative population decline, and the issue of the smallness of many of the rural municipalities is discussed.

6.1 Discussion with point of departure from the case municipalities

When looking at the four case-municipalities it is very difficult to find a clear pattern when it comes to the effectiveness of the policies described. The regressions showed a pattern of what policies that had a significant impact on population change and net in-movers, however when looking at the cases there is hard to find clear differences between the ‘good’ and ‘bad’ cases. The municipalities has different ‘strengths’ and ‘weaknesses’ when it comes to the municipal policies and from a very crude analysis³¹ one can state that in relation to the regression results, the municipality that performs the best in its ‘core functions’ is Sunne, which is also the municipality that uses the most ‘innovative’ strategies for increased attraction (my judgment). On the other hand using the same crude analysis it is Mellerud who performs the worst in its ‘core functions’ and the two ‘good’ cases are somewhere in the middle. This study has too few cases in order to make any generalizations, however these findings suggest that a municipality can be ‘better’ than another municipality in terms of core functions

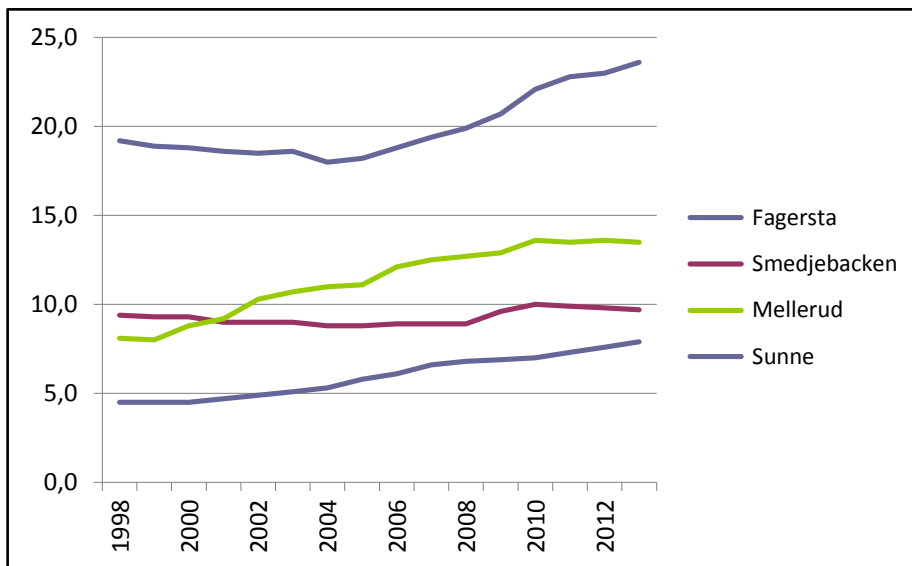
³¹ The analysis were made from counting the number of variables with a significant impact on population change from the regression a municipality had, and the municipal values were compared to the average value on that variable of all rural municipalities. Hence if Sunne had a value on unemployment rates below average where Fagersta had a value above average that meant Sunne were ‘better’ on that variable.

and strategies for increased attraction but yet have a ‘worse’ outcome on the dependent variables.

But why has Fagersta and Smedjebacken a better outcome on the dependent variables? In a crude sense it can be noticed some interesting observations and two key-elements in Fagersta and Smedjebackens relative success in reversing the negative population trend. For Fagersta, as is verified by the interviewee; it is an increased amount of foreign in-movers and for Smedjebacken it is decreasing unemployment rates³².

To begin with Fagersta the amount of foreign-born grown-ups in the municipality is 23, 6 % in 2013 and children under the age 18 is 16, 8 % in 2013, which is far higher than the other municipalities and the development can be seen in the charts below:

A chart of the amount of foreign born grown-ups between 1998 and 2013³³

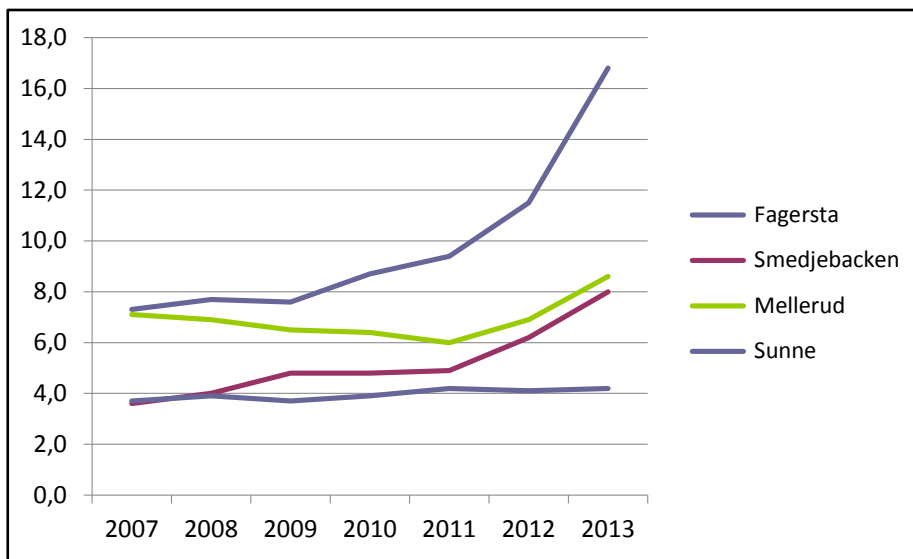


The chart shows that Fagersta has traditionally been a municipality with a relatively large proportion of foreign born for a long time and that proportion has steadily increased.

³² Some reservations must be made here that this study did not focus on finding out why Fagersta and Smedjebacken achieved a better population development than the other two municipalities and these results are only derived from the studies of the policies made and hence not very accurate. These identified key-elements should be regarded as interesting observations more than factual explanations.

³³ To make it easier for readers who do not see the colors of the lines they go from top to bottom in the following order at the time of the year 1998: Fagersta, Smedjebacken, Mellerud, Sunne.

A chart of the amount of foreign born under the age of 18 between 2007 and 2013³⁴



This chart also shows that the increase of Fagersta has been very high the last couple of years and according to the interviewee the population increase of Fagersta can be explained to a large extent by foreign in-movers.

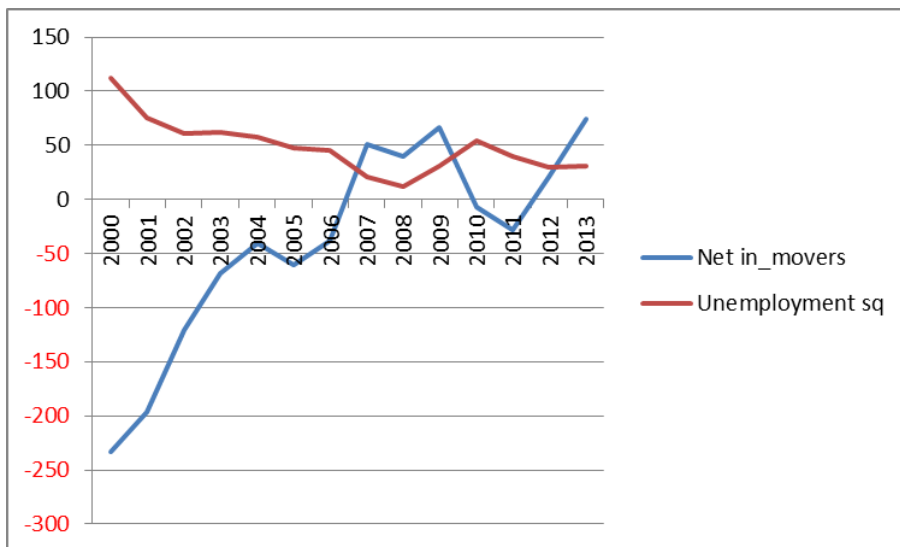
The amount of foreign-born also has also increased in Sunne and Mellerud, but not as much as in Fagersta and these municipalities still face depopulation. These two municipalities support the results of the regressions where the foreign born do not yet compensate for the population decline in most rural municipalities, however it could be argued that the population decline would have been even larger without the foreign born in-movers. Hence as theory suggest, one can argue that Fagerstas already large amount of foreign born in itself attracts other foreign born and this has contributed to Fagerstas positive population development, whereas the foreign born in most other rural municipalities, Mellerud and Sunne included, are too few to be the significant attractive force for other foreign born³⁵.

When it comes to Smedjebacken an interesting pattern between unemployment rates and in-movers can be seen. This is presented in a chart with both variables where the unemployment rates have been squared to make the connection more clear:

³⁴ To make it easier for readers who do not see the colors of the lines they go from top to bottom in the following order at the time of the year 2013: Fagersta, Mellerud, Smedjebacken, Sunne.

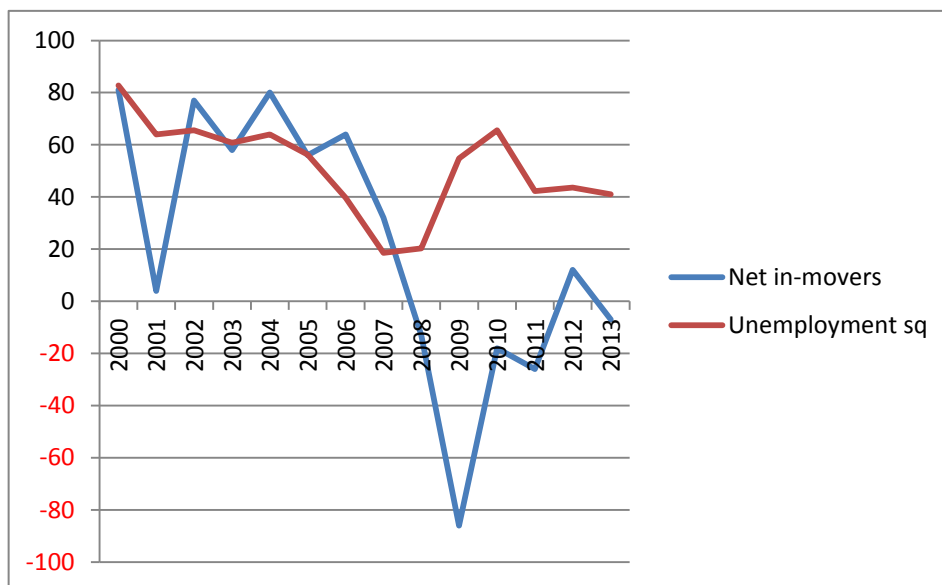
³⁵ Remember from section 2.1.1 that the factor that influences whether a foreign born chooses to stay or move to a municipality depend on the amount of other immigrants in the municipality, mainly fellow countrymen and how good the labor market for immigrants is. The share of foreign born tends to cluster, mainly to the larger cities however this might be what has happened to Fagersta.

A chart of the net in-movers and squared unemployment rates in Smedjebacken between the years 2000 and 2013³⁶



The chart shows clearly how the net in-movers increase when unemployment rates fall and vice versa. There also seems to be a tendency of a lag between the two variables where unemployment rate precedes the in-moving rate. Such a clear pattern cannot be seen in the other municipalities and for Sunne there is almost a reverse connection between the two rates:

A chart of the net in-movers and squared unemployment rates in Sunne between the years 2000 and 2013³⁷



³⁶ To make it easier for readers who do not see the colors of the lines they go from top to bottom in the following order at the time of the year 2000:Unemployment sq, Net in-movers.

³⁷ To make it easier for readers who do not see the colors of the lines they go from top to bottom in the following order at the time of the year 2013:Unemployment sq, Net in-movers.

This chart shows that Sunne had positive in-movers when unemployment was high but negative in-movers when unemployment decreased, then in-movers increased again when unemployment rose.

There is always the alternative explanation that when people move the competition about the jobs decrease and vice versa which might suggest that negative net-in moving decrease unemployment. Regardless of which people tend to move where you are able to find a job and low unemployment rates are an indication of this, and the two charts of Smedjebacken and Sunne show opposite developments. This is also supported by the second regression where unemployment rates and net in-movers did not have any significant relationship.

These two examples of contributing reasons to Fagerstas and Smedjebackens reversing of the negative population trend supports the notion that there are no 'one size fits all' solution for depopulation and what might work for one municipality might not work for another. Sunnes low unemployment rates did not have the same effects as in Smedjebacken and Melleruds increase in foreign born do not have the same effects on population change as in Fagersta. With that said low unemployment rates and foreign in-movers have several other positive influences to a municipality³⁸; however their relationship with population change and net in-moving rates are more complicated that one might think for rural municipalities, which the regressions showed. Remember, as described in the theory section, that very few people in Sweden felt 'forced' to move when they did so and research see a diminishing amount of people that moves because of economic reasons, even if employment always will be important.

Do the strategies for increased attraction work? Again this is very hard to tell due to the few cases, however these strategies were more stressed by Mellerud and Sunne when asking about what they do to attract resident whereas especially Fagersta emphasized the core functions as essential. Mellerud is about to initiate a comprehensive marketing plan and time will tell whether that will have any significant impact on their population figures. As stated earlier, Sunne's innovative strategies for attraction might have many benefits for the municipality even if it is unclear whether those will affect the population development. It is hard for this study to contribute to the findings by Niedomysl (2004 & 2006) where he could not find any positive effects of marketing strategies, however if anything this study would support that finding. The risks of using such strategies are that they may consume funds that would have had a better use somewhere else.

Lastly one can note that the two 'good' cases have left municipal governments³⁹ and the two 'bad' cases have center-right governments⁴⁰. Whether

³⁸ It is of course recognized that it is not easy for a municipality just to decrease unemployment rates and attract foreign born; it is very hard to accomplish.

³⁹ The 'left block' in Swedish politics usually encompasses the Social democrats and the Left party.

that influence their policies to a larger extent is hard to speculate in from this study, however the regressions show no support of any significant relationship between the dependent and political variables and there are probably far more important political factors, like competent candidates, than simply the color of the government and this study takes no account of such factors.

6.2 Discussion with point of departure from theory

Let's return to the overall question on the cover, 'what can rural municipalities do to reverse a population decline?' Due to the lack of adequate patterns, the findings in this study support the advice many scholars give to municipalities to focus their attention on their basic responsibilities and strive for good quality in the welfare services, effective institutions, a good infrastructure⁴¹, and as the regression results showed also to have an informative website. However as can be depicted in the case of Sunne which present good results in these variables, this is no guarantee for a positive population development. When it comes to other strategies, Sunne and Melleruds strategies for increased attraction focused mainly on the people already residing in the municipality, hoping that if they would be pleased this will spread and hence attract new residents. This is supported by previous research and probably the right way to go and even if the strategies do not give any positive changes to the population statistics, the money would hopefully still be well spent with more satisfied citizens as a result.

One problem is that municipalities are competing over the population and in-movers, which is verified in the interviews where the municipalities try to attract commuters from neighboring municipalities and interest them to move to their municipality. There are only so many people living in Sweden and even if the population is increasing overall in the country it can be quite pointless if all municipalities are striving for population growth which is more or less impossible⁴².

Lastly it can be argued that, as previously stated, the smallness of many rural municipalities imposes limitations to what kind of policies the municipality can initiate at all⁴³. If we look at the numbers of rural municipalities with a positive

⁴⁰ The 'center-right block', also called 'the Alliance' usually encompasses the center party, the people's party, the Christian democrats and the Moderates.

⁴¹ The National and European rural programs are useful in stimulating various projects aimed at improving communications like broadband in the rural areas, hence making life easier to live in these areas.

⁴² 128 of 189 rural municipalities had a negative population development between the years 2006 and 2013 and it is quite naïve to believe that most of these could have achieved a positive population development with the use of better policies.

⁴³ Especially the interviewee from Mellerud expressed that the smallness of the municipality imposed a hinder to what policies they can initiate and to what extent they could be a part of various collaborations. Another issue for most municipalities was the high building costs of housing on attractive locations that exceeded the value, hence hindering banking loans.

population development between the years 2006 to 2013 there are 26 of 138 (19 %) of the ones with less than 20 000 inhabitants, 5 of 70 (7 %) of the ones with less than 10 000 inhabitants and 34 of 51 (67 %) rural municipalities with a population larger than 20 000 inhabitants that had a positive population development. The numbers show clearly that the larger the municipality the better chance that the municipality had a positive population development, which in turn generally means a better economy and hence probably better welfare services.

This problem has been managed with the use of cooperations, but the issue remains that the larger the municipality the better population development. The previous merges of municipalities between the years 1952 to 1974 were unpopular among the rural population and there seem to be few, both scholars and policymakers, who recommend further municipal merges. Regardless, the current development of rural depopulation might make further merges inevitable in order for them to handle their welfare obligations, and municipalities can only cooperate to a certain extent before the democratic accountability becomes too hollowed. Larger municipalities will increase the distance between the local politicians and citizens but if there are too few residents in a municipality there will be problems with finding people that are willing to engage in local politics at all.

If some rural municipalities will become unable to carry out their welfare obligations and mandatory policies in an effective way due to depopulation in the future, further merges maybe will be up for discussion⁴⁴.

⁴⁴ Denmark diminished the number of municipalities from 271 to 98 in the year 2007 and Finland has diminished their municipalities from 432 to 320 between the years 2005 and 2013 (Sandberg, 2013, p 64). With this development in Sweden's neighboring countries, the same development in Sweden should not be regarded as impossible.

7 Executive summary

There is an urbanization process going on all over the world and even if the process has a slower pace in Sweden than during the industrialization period the rural areas has experienced a general population decline the last two decades. This population decline has negative consequences for the Swedish rural municipalities who experience both a decreasing tax base causing lower revenues but also, due to the characteristics of the young movers, a higher dependency ratio where the amount of elderly over 65 years of age is increasing and thus elderly costs. The issue of depopulation is a high priority for many rural municipalities and research shows that municipal representatives depicts a positive population development as the number one most important factor for the success of a municipality.

Municipal research is made in several areas such as its organization, institutions or the importance of leadership. It is however less research done on the municipal policies a municipality can use towards population changes and such previous studies has focused on successful cases with a general disregard to quantitative studies or studies of less successful cases. This study will aim at filling this research gap and this will be done through a large N study of 185 rural municipalities⁴⁵ in order to find out what rural policies that have a significant impact on a municipality's population change and net in-movers. A small-N case study with four rural municipalities will also be carried out and with the use of interviews and descriptive statistics find out how municipalities address the issue of population development. The study has also some ambition to, with regard to the large and small-N studies, discuss what policies used by municipalities that can be regarded as effective in order to achieve a more positive population development. This study intends to increase knowledge about the municipal policies against depopulation and the relation between municipal policies on one hand and population change on the other.

The large N study was carried out with the use of two regressions with population change and net in-movers between the years 2006-2013 as dependent variables and the same 12 independent variables for both regressions. The 12 independent variables were chosen with background to previous research of what people appreciate in a municipality when they move there which are in general whether the municipality can offer a good living environment, decent schools, good communications, have a good geographic location and if the employment situation is good. No geographic variable were included, but otherwise the

⁴⁵ The definition of a rural municipality made by Jordbruksverket was used.

variables emancipated broad areas of what the core responsibilities of a municipality encompass. The results of the first regression (population change as the dependent variable) showed that the variables that have a significantly positive impact on population change are high education costs per capita, high broadband accessibility, high information index on webpage and many newly registered businesses. The variables with a significant negative impact on the population change are high elderly care costs, high unemployment rate, high tax rate and a high share of the population with a long distance to the closest primary school.

The second regression (with net in-moving rates as dependent variable) had a 'less strong' explanatory power but showed the same results in variables with a significantly positive impact except of high education costs per capita. The same pattern could be seen with variables with a negative impact except of high unemployment rate and the share of the population with a long distance to the closest primary school. Hence the variables with the strongest relationship in both regressions proved to be high broadband accessibility, high information index on webpage, many newly registered businesses, high elderly care costs and a high tax rate. One can argue that in the case with the two latter variables the direction of causation might run either way and they do not cause a negative population change or in-moving per se. The other variables are however interesting and prove that good communications and a vital business climate are of importance for people, including the importance of easily finding information about the municipality on the webpage.

The small N case study of the four rural municipalities were carried out with Fagersta, Smedjebacken, Mellerud and Sunne where the two first cases were selected due to their 'good' values on the dependent variable population change and the two latter due to their 'bad' values. Hence Fagersta and Sunne had reversed a negative population trend from the year 2006 and Mellerud and Sunne have faced a worsened negative population trend. The use of both successful and less successful cases opened up for a more interesting analysis where the four municipalities' policies could be compared from a categorization of *conditions*, *core functions* and *strategies for increased attraction*⁴⁶. The conditions are similar except that Fagersta town is somewhat larger than the rest. The analysis of core functions using descriptive statistics of the 12 variables used in the regressions, showed no clear pattern in how the municipalities handled their 'welfare responsibilities' with respect to the successful and less successful cases. However after a crude review one can note that Sunne is the municipality who has the 'best' values when it comes to the variables with a significant impact on population change whereas Mellerud has the 'worst' values, and Fagersta and Smedjebacken are in the middle. Together with qualitative data extracted from the interviews conducted with a representative from each municipality one can notice that Fagersta and Smedjebacken work to some extent with strategies to increase their

⁴⁶ This categorization was inspired from Tillväxtanalys publication [*r*]egional and local growth politics, what can and should public actors do? (2011)

attractiveness and Mellerud is just about to initiate a comprehensive marketing plan to be more attractive both for existing and new residents. Sunne has the most innovative strategies and work for example with citizen dialogue and other projects in order to learn what the municipality can be better at and become more attractive.

Generally the small N study confirmed a lot from other studies about how municipalities work with the issue of depopulation and the municipal representatives were very aware of the population development of their respective municipality. Besides trying to be as good as possible in their welfare duties the municipalities often offer attractive housing and use some marketing methods to attract the residents they want, and even if some municipalities claimed that the characteristics of the desired in-movers did not matter, it was stated that there is a demand of qualified labor which is not regarded to diminish in the future. They also use various collaborations with other actors such as the region or other municipalities in order to handle their welfare duties and share responsibilities to become more competitive. Foreign immigration were, even if not a part of any particular strategy, regarded as having a great potential in the future and the importance of being able to integrate newcomers was identified as a key issue.

The study concludes with addressing the question of whether any patterns regarding the effectiveness of the rural municipal policies against depopulation can be identified. The discussion begins with a point of departure from the case municipalities and even if a clear pattern is hard to identify there are two key-reasons observed from the material for the success of Fagersta and Smedjebacken in terms of their population development and those are an increased foreign immigration for Fagersta and decreasing unemployment rates for Smedjebacken. The foreign born variable did not have any significant impact in any of the two regressions whereas unemployment rates only had a significant relationship to the variable of population change and not on net in-movers. The conclusion is made that since theory suggest that foreign born people usually moves where there are many other foreign born, and Fagersta already had a relatively large amount of foreign born population that in itself attract more foreign born to the municipality. Both the existing foreign born residents and new foreign born in-movers of the other municipalities are still too few to make up for population loss.

The connection between the unemployment rates and net in-movers were not the same for the other municipalities except for Smedjebacken and the conclusion is made that the relationship between unemployment rates and population change is more complicated than one might think, even if low unemployment rates naturally are always benefitting for a municipality.

The number of cases did not allow for any generalizations regarding whether the strategies for increased attraction had any significant impact on the population development.

The study ends with a last discussion where it is stated that due to the fact that all rural municipalities, in the end, are competing over the population and since

there are only so many people in Sweden (the population is increasing but the increase is not likely to repopulate the rural areas) it is rather impossible for all rural municipalities to have a positive population growth. Therefore the only thing that can be said with certain is that the area the municipalities should focus their policies on is their basic responsibilities and strife for good quality in the welfare services, effective institutions and a good infrastructure. It is concluded that the smaller population a municipality has the higher probability it has experienced depopulation. And even if collaborations helps the partnerships cannot be too intimate without hollowing democracy and therefore the conclusion is made that, if the current trend of depopulation continues, it might be necessary to start to discuss further merges of municipalities similar to the ones Sweden did during the 1950: s and 1970: s in order for the municipalities to handle their welfare obligations, even as unpopular as the merges were and probably still is among the rural population.

8 References

8.1 Literature

- Almgren, Hans- Höjelid, Stefan, Nilsson, Erik, (2003). *Samhällskunskap för gymnasieskolan*. Gleerups utbildning AB: Kristianstad.
- Amcoff, Jan, (2008). *Ska hela Sverige leva? Vad händer med landsbygdens befolkning?* 08-Tryck AB: Stockholm.
- Anjou, Leif, (2010). *Den politiska ledningen av kommuners utveckling och verksamhet, styrningens inriktning, styrka och effekter i elva primärkommuner*. Holmbergs AB: Malmö
- Bratt, Leif, (2010). *Kommunen, introduktion för förtroendeinvalda*. Studentlitteratur: Lund.
- Brorström, Björn- Siverbo, Sven, (2008). *Perspektiv på framgångsrika kommuner, demokratiska och ekonomiska utmaningar i teori och praktik* Livréna AB: Kungälv
- Brorström, Björn- Siverbo, Sven, (2001). *Institutioner och individer, om utveckling i framgångsrika kommuner*. Studentlitteratur: Lund.
- Bryman, Alan, (2001). *Samhällsvetenskapliga metoder*: Liber: Slovenien
- Djurfeldt, Göran- Larsson, Rolf- Stjärnhagen, Ola, (2010). *Statistisk verktygslåda, samhällsvetenskaplig orsaksanalys med kvantitativa metoder*. Studentlitteratur: Lund.
- Dougherty, Christopher, (2011). *Introduction to econometrics 4th ed.* Oxford University Press:
- Frankelius, Per- Utbult, Mats, (2009). *Den innovativa kommunen, lärdomar från åtta kommuner och relevant forskning*. Edita: Stockholm
- Freedman, David A, (2010). *Statistical models and causal inference; a dialogue with the social sciences* Cambridge University Press: USA

- Fridolf, Marie, et al, (2000). *Vem formar politiken i kommunerna?* SNS förlag:Göteborg.
- Gerring, John, (2007). *Case study research, principles and practices.* Cambridge University press.
- Kvale, Steinar, (1997). *Den kvalitativa forskningsintervjun.* Studentlitteratur: Lund.
- Mattsson, Kristina, (2010), *Landet utanför, ett reportage om Sverige bortom storstaden.* Leopard förlag: Falun
- May, Tim, (2011). *Social research, issues, methods and process.* Open University Press: USA
- Nilsson, Lars, (2013). *150 år av självstyre, kommuner och landsting i förändring.* Sveriges kommuner och landsting: LTAB.
- Nilsson, Lars, (2011). *Efter industrialismen; Urbanisering och tätortsutveckling i Sverige 1950-2005.* Erlanders Sverige AB: Malmö.
- Pallant, Julie, (2013). *SPSS survival manual, 5th ed.* Open University Press: USA.
- Wetterberg, Gunnar, (2000). *Kommunerna.* SNS förlag:Finland.
- Westholm, Erik- Amcoff, Jan- Gossas, Marcus- Korpi, Martin, (2004). *Att leva med befolkningsförändringar, en översikt.* Svenska kommunförbundet.
- Widerberg, Karin, (2002). *Kvalitativ forskning i praktiken.* Studentlitteratur: Lund.

8.2 Articles

- Allwood, Carl Martin (2011). *The distinction between qualitative and quantitative research methods is problematic.* Springer science March 2011.
- Cassel, Sussanna Heldt (2007). *Trying to be attractive: Image building and identity formation in small industrial municipalities in Sweden.* Place Branding and Public Diplomacy, vol 4.
- Erlingsson, Gissur O- Wångmar, Erik- Ödalen, Jörgen, (2011). *Kommunsammanläggningarna 1952-1974. Hur blev de politiskt möjliga?* Scandinavian journal of public administration. Vol 14.

- Fjertorp, Jonas, (2012). *Bör kommuner eftersträva befolkningstillväxt?* Kommunforskningsprogrammets rapportserie. Vol 3.
- Florin, Christina (2010). *Från folkskola till grundskola 1842 -1962. Lärarnas historia* mars 2010.
- Hedberg, Charlotta- Haandrikman, Karen, (2014). *Repopulation, of the Swedish countryside: Globalisation by international migration.* Journal of rural studies 34.
- Karcagi, Andrea Kóvats- Katona, Judit Kóvats, (2012). *Factors of population decline in rural areas and answers given in EU member states strategies* Studies in agricultural economics 114.
- Kåpe, Leif, (2006). *Kommun- och regionindelning, befolknings- och näringslivsutveckling; En studie i ett nationellt och värmländskt perspektiv.* Karlstad University studies 2006:9.
- Longstaff, G.B, (1893). *Rural depopulation.* Royal statistical society speech.
- Lundholm, Emma- Garvill, Jörgen- Malmberg, Gunnar- Westin, Kerstin, (2004). *Forced or free movers? The motives, voluntariness and selectivity of interregional migration in the Nordic countries.* Population, space and place, 10.
- McGranahan, David A- Beale, Calvin L, (2002). *Understanding rural population loss.* Rural America. Vol 17 no 4.
- Niedomysl, Thomas- Amcoff, Jan, (2011). *Is there hidden potential for rural population growth in Sweden?* Rural sociology 76.
- Niedomysl, Thomas, (2006). *Promoting rural municipalities to attract new residents: An evaluation of the effects.* Geoforum 38
- Niedomysl, Thomas, (2004). *Evaluating the effects of place-marketing campaigns on interregional migration in Sweden.* Environment and planning. Vol 36.
- Nilsson, Viveka, (2012). *Framgångsrik kommunal utveckling- Mot handlingsorientering.* Nationella kommunforskningsprogrammet, elfte rapporten.
- Olofsson, Jonas (1997). *Idéer om arbetslöshet och social politik vid 1800-talets mitt.* Socialvetenskaplig tidskrift nr 3, 1997.
- Persson, Lars Olof- Westholm, Erik, (1993). *Turmoil in the welfare system reshapes rural Sweden.* Journal of rural studies. Vol 9 no 4.

Sandberg, Siv, (2013). *Tio iakttagelser om kommunreformer i Danmark och Finland; En finländsk kommentar till Carsten Henrichsens artikel om kommunalreformer*. Statsvetenskapliga institutionen vid Åbo Akademi.

8.3 Publications

Arena för tillväxt & Svenska kommunförbundet, (2002). *Mot strömmen- en studie om inflyttare till mindre kommuner*.

Dagens samhälle. *Flyktningmottagning i kommunerna 2005 -2011*.

Formas Fokuserar, (2008). *Ska hela Sverige leva?* 08-Tryck AB

Jordbruksverket, (2013) *Allt om landet, vem bor på landsbygden*. Rapport 2013:23.

OECD, (2009). *How regions grow, trends and analysis*.

Glesbygdsverket, (2007). *Kartläggning av strategier för att öka befolkningen i kommuner och regioner*. Regeringsuppdrag augusti 2007

Regeringskansliet (2008). *En strategi för att stärka utvecklingskraften i Sveriges landsbygder– en sammanfattning av Regeringens skrivelse 2008/09:167*.

SkI, Sveriges kommuner och landsting, (2006). *En informationsskrift om 2005 års utjämningsystem för kommuner och landsting*. Finansdepartementet samt Sveriges Kommuner och Landsting.

SkI, Sveriges kommuner och landsting, (2005). *Samverkan pågår, möjligheter och begränsningar*.

Statistiska centralbyrån, (2006). *Tillräcklig kvalitet och kriterier för officiell statistik*.

Svensk Handel (2009). *Besöksnäringen i Sverige, Kommunindex 2009 Topp 100*.

Tillväxtanalys, (2014). *Samverkan inom ramen för flernivåstyrning*. PM 2014:09

Tillväxtanalys, (2011). *Regional och lokal tillväxtpolitik, Vad kan och bör offentliga aktörer göra?* Working paper/PM 2011:28

Vinnova, (2013) *Vad ska man ha ett land till? Matchning av Bosättning, Arbete och Produktion för tillväxt*. Vinnova rapport, VR 2013:06

8.4 Electronic sources

Fagersta 1: Fagersta municipality website. “*Fagerstas historia*”.

Available: <http://www.fagersta.se/turism/om-fagersta/fagerstas-historia>; Search date 18/4 2014.

Fagersta 2: Fagersta municipality website, “Politiker”.

Available: <http://www.fagersta.se/politik-a-forvaltning/politiker>; Search date 14/5 2014.

Migrationsverket, government agency. “Kommuner”.

Available: <http://www.migrationsverket.se/Andra-aktorer/Kommuner.html>; Search date 13/4 2014

Ovako, corporation website. “*Smedjebacken*”.

Available: <http://www.ovako.com/sv/Karriar/Har-finns-vi/Smedjebacken/>; Search date 3/5 2014.

Scb 1: Statistiska centralbyrån website, public authority. “Vi fortsätter att föda fler barn”.

Available: <http://www.scb.se/Statistik/BE/BE0101/2010A01L/Fodda.pdf>; Search date 2/5 2014

Scb 2: Statistiska centralbyrån website, public authority. “Högsta antalet asylsökande på 20 år”.

Available: <http://www.scb.se/sv/Hitta-statistik/Artiklar/Hogsta-antalet-asylsokande-pa-20-ar/>; Search date 2/5 2014

Scb 3: Statistiska centralbyrån website, public authority. “Sveriges officiella statistik”.

Available: <http://scb.se/sv/Om-SCB/Sveriges-officiella-statistik/>; Search date 4/7 2014

Scb 4: Statistiska centralbyrån website, public authority. “SCB:s historia”.

Available: <http://scb.se/sv/Om-SCB/Verksamhet/SCBs-historia/>; Search date 4/7 2014

Sveriges kommuner och landsting website, interest organization. “*Så styrs en kommun*”

Available: http://www.skl.se/kommuner_och_landsting/sa_styrs_en_kommun; Search date 15/4 2014

8.5 Links to the statistical data sets

8.5.1 Swedish statistical agency

Available (regional statistics): http://scb.se/sv_/Hitta-statistik/Regional-statistik-och-kartor/Regional-statistik-efter-amne/

8.5.2 Municipal and regional database

Available: <http://www.kolada.se/index.php?page=workspace/nt>

8.5.3 Board of agriculture

Available:
http://statistik.sjv.se/alltomlandet/Menu.aspx?px_type=PX&px_db=AlltOmLande&px_language=sv

8.6 Interviews

The identity of the interviewees may be revealed to relevant person if requested.

Fagersta interview

With official at Fagersta municipality. Telephone interview 4/6 2014.

Smedjebacken interview

With official at Smedjebacken municipality. Telephone interview 13/6 2014.

Mellerud interview

With official at Mellerud municipality. Telephone interview 11/6 2014.

Sunne interview

With official at Sunne municipality. Telephone interview 12/6 2014.

Appendix 1

Interview questions⁴⁷:

- 1. Hur länge har du arbetat på kommunen?**
- 2. Vad innefattar dina arbetsuppgifter?**
- 3. Är du medveten om eller har koll på kommunens invånarutveckling?**

- 4. Hur arbetar kommunen för att locka nya inflyttare?**
- 5. Hur arbetar kommunen för att minska utflyttning?**
- 6. Hur mycket upplever ni att kommunen prioriterar och arbetar för att ha en positiv befolkningsutveckling?**

- 7. Hur länge har kommunen haft dessa mål eller arbetat med dessa frågor? (Om de gjort så)**
- 8. Finns det vissa grupper som kommunen riktar sina ansträngningar för att locka/få att stanna kvar?**
- 9. Varför vill kommunen ha en positiv befolkningsutveckling? (Frågas endast om kommunen faktiskt tycker detta är viktigt)**
- 10. Vilken är kommunens främsta attraktionskraft?**
- 11. Vilka resultat kan kommunen se av sitt arbete?**
- 12. Sker samverkan med andra aktörer i frågan?**
- 13. Varför arbetar kommunen på detta sätt?**
- 14. Invandringens roll?**

⁴⁷ A translation to English can be provided upon request.

Appendix 2

Regression 1

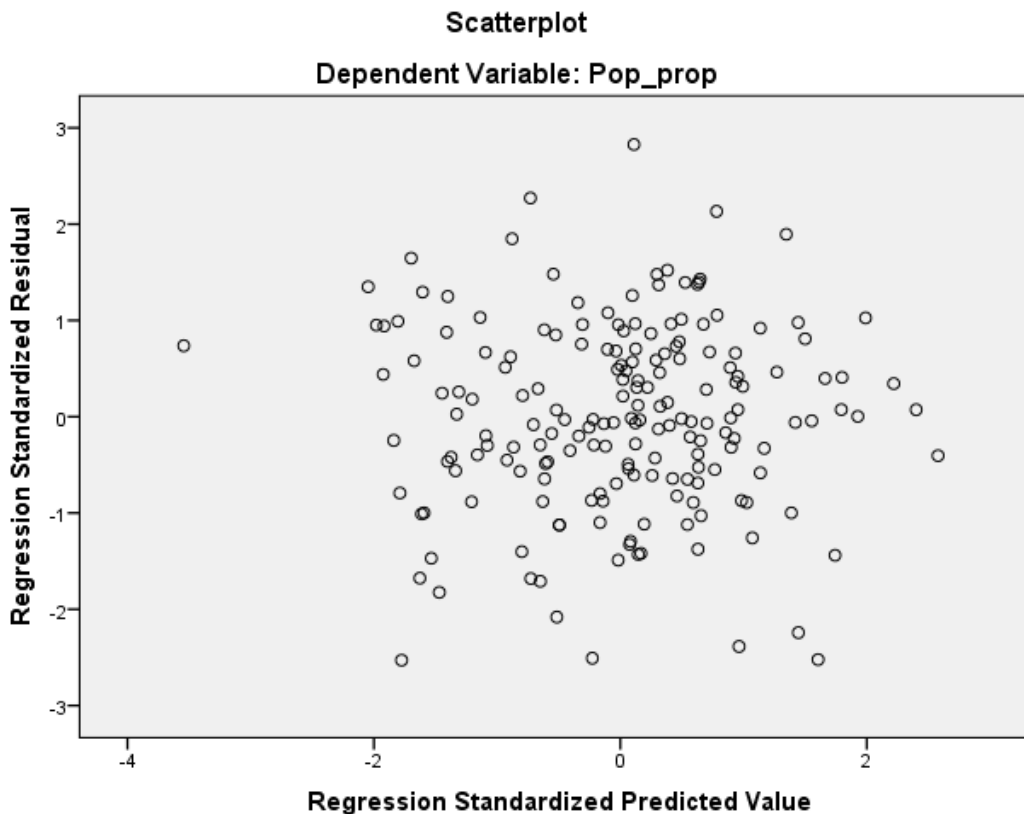
Multicollinearity statistics with tolerance and VIF values.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.118	,053		-2,202	,029		
	Unemp_mean	-.006	,001	-.254	-4,779	,000	,612	1,634
	Foreign	,000	,000	,038	,831	,407	,809	1,236
	Busi_reg	,007	,002	,189	4,119	,000	,816	1,226
	Tax	-.004	,002	-.102	-2,160	,032	,772	1,296
	BroadB_acc	,030	,011	,124	2,844	,005	,900	1,110
	Edu_ava	-.076	,022	-.190	-3,478	,001	,579	1,727
	HC_ava	-.022	,013	-.083	-1,630	,105	,663	1,509
	Info_web	,001	,000	,279	5,632	,000	,702	1,424
	Right_party06	,003	,004	,035	,761	,448	,803	1,245
	Shift_party06	,005	,004	,054	1,253	,212	,931	1,074
	Edu_cost	9,126E-6	,000	,240	5,192	,000	,804	1,244
	Eld_cost	-1,052E-6	,000	-.192	-3,596	,000	,604	1,656

a. Dependent Variable: Pop_prop

Scatterplot of residuals for visualization of heteroskedasticity.



Appendix 3

Regression 2

Multicollinearity statistics with tolerance and VIF values.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,010	,006		1,645	,102		
	Unemp_mean	,000	,000	-,125	-1,911	,058	,612	1,634
	Foreign	-5,239E-6	,000	-,007	-,127	,899	,809	1,236
	Busi_reg	,001	,000	,334	5,903	,000	,816	1,226
	Tax	-,001	,000	-,207	-3,565	,000	,772	1,296
	BroadB_acc	,003	,001	,128	2,379	,018	,900	1,110
	Edu_ava	-,004	,002	-,102	-1,519	,131	,579	1,727
	HC_ava	-,002	,001	-,067	-1,060	,290	,663	1,509
	Info_web	,000	,000	,250	4,097	,000	,702	1,424
	Right_party06	,000	,000	,038	,663	,508	,803	1,245
	Shift_party06	,001	,000	,071	1,338	,183	,931	1,074
	Edu_cost	-4,633E-8	,000	-,014	-,238	,812	,804	1,244
	Eld_cost	-7,489E-8	,000	-,152	-2,312	,022	,604	1,656

a. Dependent Variable: InMov_mean

Scatterplot of residuals for visualization of heteroskedasticity.

