Demographic changes and labour migration: The implications of transition spaces for local communities

Research on local population's attitude on demographic changes and labour migration and their implications for the rural community of Halderberge

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Preface

When I started with the process of choosing which topics to focus on for my master thesis, I was faced with a large selection of equally intriguing topics such as migration, integration, housing, social cohesion etcetera. It fascinates me how people with different backgrounds live together in a specific neighbourhood and the nature of their interaction, and its impact on the quality of the living environment. After weighing up the various options, I decided to start my internship at the province of Noord-Brabant, where I combined different concepts that influence the living environment such as demographic changes and labour migration. These are emotionally charged and sensitive topics, which can be difficult to analyse. Nevertheless, I took the approach of quantifying the local populations feelings, supported with qualitative data. This combination established a framework within which I could interpret their attitudes towards transition space. After several months of hard work, the process of my thesis has come to an end and I hereby present the results in a booklet. I am satisfied with the final result and pleased to graduate from Radboud University with a master's degree in Human Geography. I hope you, as a reader, will enjoy reading it and feel the enthusiasm and effort I put in it.

I would also like to thank some people who have supported and aided me in the last year. First, I would like to thank my thesis supervisor Pascal Beckers. He supported me throughout the research process by sharing his knowledge and giving me valuable feedback. I am also very grateful for my internship supervisors Eef Berends and Amarins Hielkema. Their motivation and enthusiasm for their work, but also for helping me with my research, have inspired me. I could reach out to them any time and they brought me in contact with the right people. They also gave me an insight into the work processes and whenever I was stuck with my research or uncertain about it, their positive attitude and virtual support, especially during the covid-19 pandemic, pulled me through. I also would like to thank the municipality of Halderberge and some of their employers for their time and efforts: Chantal van den Heuvel, Maaike Kokx and Marjolein Bömer. I would like to thank them for giving me the opportunity to select Halderberge for the case study and to conduct this research at their municipality. I also would like to thank Citisens for programming my questionnaire and reaching out to the respondents. My thankfulness also goes to the PON team, in particular Marleen van der Haar, who helped me with my survey questions. I also would like to thank Dean Zouari for his help with the analysis. All of this would not have been possible without his encouragement, endless patience and his trust in a good completion of this thesis. Finally, I would also like to thank all respondents and interviewees for their time and willingness to participate in this research.

Notice

I would like to raise the readers awareness to the extenuating circumstances under which this research was conducted. As you might be aware, early year 2020 was a period defined by the covid-19 crisis. As of writing this thesis, we are still trying to adapt to the consequences of this pandemic, where working from home and social distancing became the norm. Therefore, initial research plans needed to be revised. At the onset of the research process, the security measures confronted me with additional uncertainties: sudden home confinement, lack of ability to attend in-person meetings and limited networking possibilities, all led to a more limited scope of research than expected. However, after revising the initial plans, and with the support of the people involved in this research, everything worked out quite well. It will be difficult to find out if the timing of this research has influenced the results of this thesis and if so, to what extent it has. Nevertheless, these extreme measures we all had to deal with, makes me extra proud of the achievements and the hard work done.

Summary

Many (outskirt) regions of Noord-Brabant lie on the foot of a demographic transition, due to an ageing population. This process is expected to cause a new economic and social reality in the province. A new reality that is predicted to be one with an increasing tension on the labour market and a pressure on the local (public) facilities. All resulting in a deterioration of the quality of the living environment for the affected (outskirt) region. The search for appropriate responses to manage these future impacts of population decline, has directed the attention to international labour migration as a potential solution.

Though, diversifying mobility flows, combined with demographic changes, can alter the ethnic and demographic profile of rural communities, leading the place towards a space in transition. This transition space is described in the academic literature as a transformative process of a space, leading to possible opportunities and new reconstructions of said space. Perceptions play a pivotal role in this transformative process, as they are a determining factor for whether the community's new reconstruction of space culminates in either a space of inclusion, or conversely of an exclusionist one.

The aim of this research is to examine the aforementioned transition space, incurred by demographic changes and labour migration, and the local population's perception towards these concepts. This group of locals is often overlooked in research concerning especially labour migrants. To achieve this aim, the following research question was formulated: What characterizes the transition space incurred by demographic changes and labour migration in Halderberge and what is the local population's attitude towards these concepts and their implications for the community?

To answer this research question, the municipality of Halderberge was selected as a case study. In this case study, a sequential explanatory strategy of mixed methods was used to collect data. This method consisted in the first phase of quantitative data collection in the form of a survey spread among inhabitants. In the second phase, a few qualitative interviews were conducted to help interpret these quantitative survey results.

The analysis of both datasets showed, that the arrival of labour migrants from other European member states, and their implications for the rural area of Halderberge, seem to inspire greater fear than the forecasted population decline and its implications for the labour market and the living environment. It appears that the driving forces behind these fears are determined by the lack of interactions between labour migrants and inhabitants, a two-sided perception on their added value and a low consensus mainly due to housing issues, nuisance and the lack of integration of these newcomers. Overall, the local inhabitants therefore lacked support for a potential future role for labour migrants in revitalising shrinking areas.

Based on these results, a few key concepts must be considered by the municipality as well as the province. One aspect is to reduce the friction between the labour migrants and the local population, through paying more attention to adequate inclusive housing, improved registration, more governmental oversight and improved integration efforts. Another aspect should be an improved focus on technology, automation and the overall balance of the labour market. Furthermore, possible follow-up research could focus on an extra case study to make results more generalizable, or a research focussed on the labour migrants itself to gain a different perspective.

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1. Introduction

This chapter serves as an introduction to this research. The first paragraph starts with an introduction to the general scope, which describes the forecasted population decline in Noord-Brabant, and labour migration as a potential solution for the challenges the aforementioned concept brings. Subsequently, it touches upon the research considerations and focus area. The second paragraph details the research objectives and research questions, which are used to investigate in the problem indication. The societal and scientific relevance are further detailed in the third and fourth paragraph, explaining why investigating in this research is relevant. Finally, this chapter ends with an overview of the structure of this thesis.

1.1 Demographic changes and Labour migration

After the year 2040, the population of the province of Noord-Brabant is predicted to decline, due to ageing, youth out-migration, lower birth rates and higher death rates - despite of the longer life expectancy; this is a consequence of the ageing baby boom generation. From the year 2040 onwards, those lower birth rates and higher mortality rates are no longer being compensated by the immigration rate (Provincie Noord-Brabant, 2017a). This decline is not equally distributed over the province, but characterized by regional differences. The population in the more rural areas, most often located along the borders, are predicted to shrink earlier than the non-rural municipalities, as an effect of urbanisation. The population decline, in combination with ageing, has a high social and economic impact on these outskirts such as predicted labour shortages and a possible deterioration of the living environment (Provincie Noord-Brabant, 2017a). The search for appropriate responses to manage these future impacts of population decline and urbanisation on rural areas, has directed the attention to international labour migration as a potential solution. This idea is not new, it manifests in academic literature, and it has even been introduced as a proposed policy by a Dutch political party, in order to reduce the shortage of personnel. The party behind said proposal stated that there are 264.000 open vacancies, which are not filed by the Dutch workforce (ANP, 2020).

The aforementioned demographic changes combined with diversifying mobility flows can alter the ethnic and demographic profile of rural communities (Søholt, Stenbackab & Nørgaardc, 2018). This can lead to a new social order being reproduced in the community, which is called the transition space. The transition space stands for a social order with its own symbols, networks and social relations, that is reproduced over time with the dissolution of old relations and where new relations are generated. Every community has to deal with these transformations every now and then. Perception plays a pivotal role in these transformative processes. They are a determining factor in whether the community's transition towards a new social order culminates in possible opportunities and new constructions of inclusion, in which every human is being recognized as an individual, or conversely of an exclusionist one, in which certain individuals can face barriers, discrimination and intolerance. In summary, this means one cannot explore migration as potential solution for the consequences of demographic changes within the outskirt areas, without studying the rural inhabitants' attitudes towards these two concepts.

In this research, I aim to examine this rural transformation (transition space) incurred by the concepts of demographic changes and labour migration, and how these concepts intersect on a local rural level. Since my internship was hosted by the Province of Noord Brabant, the focus is on a specific local case within the province, which is the town of Halderberge. Halderberge is one of those communities that is experiencing the aforementioned transformation. I will elaborate on the arguments for this choice in the following chapters. The focus in this thesis will be on how labour migrants are framed; are they visible and noticed or invisible and unnoticed, are they seen as potential settlers or as threats, are they included or excluded from the community, are they seen as promoters or inhibitors of local development, and can a role be ascribed to labour migrants in revitalising these (prognosed) shrinking areas (Søholt et al., 2018). The following sections touch upon the research considerations which are labour migrants, and further details the focus area, which are rural communities.

1.1.1 Research considerations: Labour Migrants

The focus on labour migrants in this thesis, is still broad, since migrants can belong to various categories and have numerous backgrounds. It is therefore worth mentioning, that the scope of this research revolves around labour migrants from other European member states. These labour migrants are mainly from Central and Eastern Europe, since the accession of these new EU member states in the years 2004 and 2007, encouraged the labour migration from said regions. The most important condition for choosing this group is due to their motives for relocation, which are mainly and almost exclusively related to work. The main reason for not taking into account other migrant groups, such as family reunification migrants, students and humanitarian migrants (such as refugees and asylum seekers), is because they have other motives to move, and have to deal with a complexity of issues relating to work permits and place of residence. Knowledge migrants are also excluded from the scope of this research, although they have the same motives to relocate, namely work, on the basis that they are mostly high skilled. Furthermore, they form only a relatively small part of the total number of labour migrants, and these high-skilled migrants generally do not settle in rural communities.

1.1.2 Focus area: Rural Communities

As briefly elaborated upon in the earlier section, the focus of this research is on the perceptions of local rural inhabitants towards demographic change, and the potential role of labour migration in mitigating its consequences. The choice of focusing on rural communities stems from their inherent characteristics, especially when compared to their urban counterparts. The effects of population decline will be felt much harder and earlier in such communities, as they are made up of a small population that cannot sustain a rapid rate of out-migration of the youth. This is aggravated by the fact that rural communities are more stable and relatively static. Looking at the second concept of labour migration, here as well the effects will be felt differently on a rural level. Rural places are more conservative, made up of a close-knit community where individuals share a common perspective. This illustrates that overall rural communities are more homogeneous, and thus 'diversity is acceptable only to the extent that it does not threaten social harmony as viewed by the majority' (Søholt et al., 2018, p. 221).

1.2 Research objectives and questions

In this paragraph the research objective, main research question and sub-questions are formulated.

Research objectives

This research aims to study local rural community spaces in transition, with the focus on the implications of population decline and the presence of labour migrants, as well as the local population's attitude towards these concepts. The purpose is to provide a better understanding of how the residents of the region in question see the presence of labour migrants, and if a role is ascribed to labour migrants in local development, as well as revitalising shrinking areas in times of demographic change.

To achieve this objective, I developed the theoretical framework, in which the theories of space, demographics and migration are described. I based the conceptual model on these aforementioned theories. These two steps helped in framing the research and were followed by the description of the case which was conducted in Halderberge. Desk research was conducted to outline the number of labour migrants living and working in the municipality, and the current policies on labour migration. A combination of both scientific literature and reports published by various research centres were also used, see subparagraph 3.4.1 and the References chapter for more details. For the empirical part, a sequential explanatory strategy of mixed methods approach was used. This means in the case study, both quantitative and qualitative data is collected, but in different time phases. First, a quantitative data collection in the form of a survey was conducted. In the second phase, in-depth semi-structured qualitative interviews with some of the survey respondents were conducted. The interviews helped me to interpret and reflect on the results of the survey.

Research question

The interest for this master research lies in three main concepts: 1) The Transition Space; 2) The Demographic Changes; and 3) Labour Migration. The main research question is therefore as follows:

What characterizes the transition space incurred by demographic changes and labour migration in Halderberge and what is the local population's attitude towards these two concepts and their implications for the community?

Sub-questions

1. What characterizes the transition space incurred by demographic changes in Halderberge in the provincial context of Noord-Brabant?
2. What role do European labour migrants play in shaping this transition space?
3. What is the local population's attitude towards the presence of European labour migrants in the community and how do factors such as contact frequency, perception, consensus, integration and housing influence the local population's attitude?
4. How does the local population feel about the demographic changes and do they see a future role for labour migrants in shaping these transition spaces?

1.3 Societal relevance

In paragraph 1.1 of the introduction, it was mentioned that population decline, in combination with ageing, have high economic and social impacts. It can lead to labour market shortages and a deterioration of the living environment. This can be mitigated with labour migration, however if immigration is not conducted and managed appropriately, it could lead to further aggravating these issues. This research is relevant as it attempts to give an insight into how demographic changes and immigration are affecting the living environment according to the local inhabitants, by revealing their attitudes and perceptions towards demographic changes and immigration in Halderberge. The results of this study will point the municipality of Halderberge, and partly the province of Noord-Brabant, in the right direction in terms of policy development, to ensure a successful long-term deployment of labour migrants. The two sections below are dedicated to expanding on the impacts of demographic changes, and to offer a better understanding of their magnitude. These two sections focus mainly on the broader context of Noord-Brabant, but in Chapter 4, these will be detailed for both the province, as well as the municipality of Halderberge.

Labour market shortage
In Noord-Brabant, the high economic impact of demographic change translates into a decline of the potential labour force (individuals between the age of 20 and 64) by 100.000 people (-7%) for the period between the year 2012 and 2050 (Provincie Noord-Brabant, 2017b). Here shortages will mainly be felt in sectors such as logistics, technical disciplines, agriculture and the construction sector. It concerns often low-paid and physically demanding work. Whereby employees work multiple hours on a temporary basis, often seasonal in nature. Work that the locals do not want to partake in, or at least not under the same conditions as the labour migrants. For West-Brabant, where Halderberge is located, there is and expected need for circa 45.000 labour migrants by the year 2040, whereas in 2018, an estimated 28.000 labour migrants were employed in the region (CoMensha, 2019). Automation, digitization and increasing AOW-pension age can only partly compensate for these shortages (CoMensha, 2019). Therefore, more labour migrants might be needed in the future.

Deterioration of the quality of the living environment
The second main impact of demographic changes is the deterioration of the quality (liveability and vitality) of the living environment. This is due to added pressure on economic and social (welfare) facilities, or even a loss of said facilities (BrabantKennis, 2019). Stores, such as local supermarkets, will have difficulty to maintain their business activities. Public facilities such as community centres, sports halls, local pubs and schools are also impacted. Local football clubs disappear due to having fewer members, resulting in an exodus of youth seeking sports and entertainment elsewhere. Furthermore, a decrease in municipalities' income, means fewer financial resources to maintain (the quality of) public facilities. 'Villages without facilities, without meeting places, are actually no longer villages, but just residential areas' (Polling, 2012, p. 28). The vulnerable ageing population will suffer most from these losses. Lacking mobility makes them dependent on the facilities at a reasonable distance.

1.4 Scientific relevance

This research is scientifically valid for multiple reasons. The first of which is the inclusive nature of this research where the focus is on the perspectives of a wider sample of the rural population, without exclusion. This helps achieve a more realistic representation of the ordinary local citizens, as it examines a more comprehensive set of viewpoints. Especially since prior research often focuses on the narratives of a small group of rural elites exclusively, such as in the research of Søholt et al. (2018) & Frederyk Rye (2018). Furthermore, the media lacks a representation of all actors within the rural community, and presents select perspectives only. Perspectives that are often negative and single sided in their meanings or opinions. This contribution is illustrated through that fact that it breaks from the trend where there 'is hardly any research conducted about the perceptions of people living in Noord-Brabant or experiences of local residents' (Het PON, 2018a, p. 3).

The second reason for the relevance of this research, is its focus on rural communities and how they are impacted by the diversifying mobility flows and demographic changes. Especially given the fact that studies on mobility in rural areas has often been neglected (Aure, Førde & Magnussen, 2018). This is because migration flows to urban areas have often overshadowed those to peripheral areas (Søholt et al., 2018), and thus were subjected to a higher volume of studies. Demographic changes on the other hand, have renewed interest on rural migration (Frederik Rye, 2018). A closer examination of this phenomena can help 'explain the forces involved in transforming rural places related to immigration and resilience' (Søholt et al., 2018, p. 221)

A third validation for this research is the focus on the human cost of being part of a declining community, as opposed to focusing on the material side of the issue. This approach is derived from Hospers (2010). Hospers mentions that the current literature on population decline focuses often too much on the so called 'hardware', and too little on the 'software'. With hardware Hospers denotes the visibility of decline in the physical environment, such as property abandonment. With 'software' Hospers refers to the quality of life (BrabantKennis, 2019; Hospers, 2010). What does youth out-migration, ageing and the arrival of newcomers, such as labour migrants, actually do with the social cohesion and social networks within the local community? (BrabantKennis, 2019).

1.5 Readers guide

In Chapter 2, theories that are relevant to my topic of research are further explained and critically discussed. These main theories are the theory of space, theory of demographics and the theory of migration. The first theory of space, is about the creation and reproduction of space. The second theory of demographics, is about the demographic transition which is happening in postmodern societies, resulting in population decline and ageing. The third theory is about migration, since migrants can play a valuable role in mitigating the impact of the aforementioned population decline. To help understand the relationship between these theories, the chapter ends with a conceptual model and the formulation of the hypotheses. The conceptual model, as well as the hypotheses, aid in answering the research questions as established in this first chapter.

In the Chapter 3, the methodology for this research is explained. The chapter starts with explaining the chosen research philosophy of positivism and interpretivism. Furthermore, it explains the choice behind a deductive and mixed methods research approach. I also detailed the research strategy of a single case study design and alluded the choices made concerning the data collection. The survey design including an elaboration of all chosen themes are discussed, and how the data was analysed, as well as a methodological reflection on the validity, reliability and the ethics of this research.

In Chapter 4, sub-questions 1 and 2 are answered, by means of literature research. It presents a case description about the transition space of the broader context of Noord-Brabant, and more specifically Halderberge. The first paragraph explains the concepts of labour migration and demographic changes in Noord-Brabant, and the second paragraph explains these concepts for the municipality of Halderberge.

In Chapter 5, the sub-questions 3 and 4 are answered by means of data analysis. The first paragraph describes the first step of the data analysis, which is data exploration, including the processes of handling missing data, as well as data enrichment. The second paragraph describes the demographic data of the respondents that took part in this research, and the sampling error regarding these group of respondents. The third and fourth paragraph present the descriptive and explanatory analysis of the survey and interview data. The sections are divided by the main themes Experiences and contact frequency; Perceptions; Consensus; Integration; Housing; Population decline.

In Chapter 6, the conclusion of the main research question is outlined, as well as the conclusions on the sub-questions. These conclusions are based on the results of the analysis in previous Chapter 5. Thereafter, a critical reflection including strengths and limitations on how the research was executed can be found. The last paragraph gives recommendations for both further research and policy interventions for the province of Noord-Brabant and the municipality of Halderberge.

2. Theoretical framework

This chapter serves as an introduction to the following theories: theory of space, theory of demographics and the theory of labour migration. The theory of space is about the creation and reproduction of space. It describes how space reproduction can be threatened through the arrival of new non-homogeneous groups. This leads to the second theory of demographics, which states that postmodern societies transition towards low fertility and low mortality rates, resulting in population decline in combination with ageing. This transition will give rise to new economic and social challenges which leads us to the last theory of migration. Migrants can be valuable for the growth of the population and the local economy. Especially in local rural communities striving to maintain an adequate population. To help understand the relationship between these theories, a conceptual model was created and is presented at the end of this chapter.

These aforementioned theories and the many ways in which they overlap, form the basis of this research's theoretical framework. This framework will serve to answer the main research question: 'What characterizes the transition space incurred by demographic changes and labour migration in Halderberge, and what is the local population's attitude towards these two concepts and their implications for the community?' The following paragraphs are dedicated to explaining each theory in greater detail.

2.1 Theory of Space

This chapter starts with the theory of space. Space is a construct of the social relations amongst individuals living within it. The first subparagraph is dedicated to exploring the concepts of creation and reproduction of space. This reproduction suggests that space is dynamic and often in transition, which is called 'spaces in transition'. In the second subparagraph the focus is on spaces of threat, where the nature of this transition is elaborated upon, as it is not often smooth. Finally, the last section culminates in a brief discussion regarding Welcoming Spaces, a European project that puts all these concepts together.

2.1.1 Spaces in transition

A number of researchers have reported on the creation and formation of space. Henri Lefebvre was the first sociologist introducing the idea that space is socially produced by humans. With space, or its production, Lefebvre meant the reproduction of social relations (Gieseking, Mangold, Katz, Low & Saeger, 2014). Social reproduction is the social order being reproduced over time, by people continuing to act in ways inherited from the past (Inglis & Thorpe, 2012). Spaces are thus dynamic in nature; they shape and are shaped by multiple identities of humans living within them (Gieseking et al., 2014). In that sense, space is both a means of production and a product of it (Lefebvre, 1991). It is produced through actions, attitudes, inventions and policies, which means culture also plays a key role in the formation of space (Gieseking et al., 2014).

Lefebvre (1991) describes how every society produces its own space with its own symbols, networks, and social relations. It is reproduced over time with the dissolution of old relations and where new relations are generated. The space itself is already carrying the seeds of a new kind of space, a space of differential (Gieseking et al., 2014). 'Abstract space tends towards homogeneity, towards the elimination of existing differences or peculiarities, a new space cannot be born (produced) unless it accentuates differences' (Gieseking et al., 2014, p. 293).

Furthermore, Lefebvre distinguishes three dimensions of space and ways in which they are produced that are interconnected: the spatial practice (perceived space), the representations of space (conceived space), and the spaces of representation (lived space) (Gieseking et al., 2014; Watkins, 2005). The perceived space can be grasped by the senses such as seeing, hearing and touching. It relates to the materiality of space; human action whose results can be studied in the physical space (Gieseking et al, 2014; Watkins, 2005). The conceived space is about abstract representations. It refers to space as conceptualized by planners, policy makers, politicians etcetera. The lived space is defined through its associated symbols and images resulting from the inhabitants of such space (Gieseking et al., 2014). It consists of day-to-day social human networks; a complexity of nonverbal signs and symbols, part of social life. Lefebvre's notion of space can be used as a resource to investigate in the social world; an analytic tool to identify problematic issues within a social space (Watkins, 2005).

2.1.2 Spaces of threat

The transition and reproduction of space is not always flawless and without struggle. Stephan & Stephan (2017) suggest that individuals within a space, might be threatened by the arrival of newcomers and the perceived potential harms they might bring. Threats can be understood as either tangible harms; economic loss; destruction of personal property; discrimination; aggression; theft; frustration, or intangible harms, seen as violations towards culture, values, beliefs or norms. Such perceived threats have a destructive effect on intercultural interactions and can cause negative emotions, attitudes (cognition) and perhaps even behaviour (Stephan & Stephan, 2017).

To form inclusive spaces, where newcomers (migrants) are being recognized as individuals and have the right to be fully incorporated into a society, regardless of background, gender, race, culture etcetera, threats are to be reduced (Søholt, Stenbackab & Nørgaardc, 2018). This can be achieved through understanding and controlling ingroup-outgroup biases. The ingroup refers to the existing residents, while the outgroup refers to the newcomers. Creating knowledge within the ingroup about the norms, beliefs and values of the outgroup, reduces perceived threats. Another equally important factor in reducing negative perceptions, is the creation of trust, empathy and the personalisation of people from the out-group (Stephan & Stephan, 2017).

Achieving a positive interaction between locals and newcomers (migrants) helps to turn the space into a 'Welcoming Space'. A concept illustrated through a European project which is similar in nature to this research. The next subparagraph will serve as a brief introduction to the shared ideas between this project and the key concepts of this research.

2.1.3 Welcoming spaces

The European research programme 'Welcoming Spaces' is a project that looks into two policy challenges: population decline and migration (Meijer, 2019). It is funded by the European Union and carried out by Utrecht University. Researchers from five different European countries are investigating 'How to achieve inclusive and sustainable developments in shrinking regions, contributing to revitalisation while providing opportunities for the successful integration of non-European migrants' (Meijer, 2019). A welcoming space organises local initiatives to attract migrants and help them integrate (Meijer, 2019). The project is a countermovement towards the negative portrayal of migrants. The project recognises that welcoming migrants and successfully integrating them, is important for the cohesion, prosperity, and well-being of societies in Europe (University Utrecht, 2019). Especially, given the need for new policies to address the rapid demographic shift, which is a topic that will be detailed further in the next paragraph.

2.2 Theory of demographics

This chapter introduces the theory of demographics. The first subparagraph is dedicated to the demographic transition theory, a theory that describes post-modern societies to be one with a low fertility and low mortality rates. This leads to the second subparagraph where this demographic transition is further elaborated upon, by focussing on the Netherlands. In the third subparagraph the focus is on the economic consequences, whereas the subparagraph four focusses on the social consequences.

2.2.1 Demographic transition theory

The theory of demographic transition is one of the greatest generalizations in social science, and a main topic in population studies, used to forecast future trends in population (Kirk, 1996). The theory states that 'societies that experience modernization progress from a pre-modern regime of high fertility and high mortality to a post-modern one in which both are low' (Kirk, 1996, p. 361).

Mortality decline in post-modern societies can be explained through improved diagnosis and treatment of diseases, less epidemics due to better hygiene and vaccinations, improved standards of living and fewer deaths from war and violence (Kirk, 1996). The low fertility in the post-modern time, is a bit harder to explain because it is influenced by a variety of reasons (Kirk, 1996). First of all, the social attitudes towards motherhood changed. Modern women study, work, and put their career ahead of starting a family (Hospers & Reverda, 2012). A second reason is that society took over the role of ensuring the quality of the latter stages of life, whereas in the past this role was assigned to one's children (Hospers & Reverda, 2012). A third reason is the advent of birth control. This made it so that starting a family became a rational choice (Kirk, 1996). In this rational choice, factors such as the costs of raising children; the reduction in personal time for parents and the disadvantages of pregnancy, are considered. (Kirk, 1996). A fourth reason can be the decrease in importance of traditional religious beliefs, in which traditional behaviour was replaced by a greater individual orientation (Kirk, 1996). A fifth reason can be the transition from an industrial society to a technology driven one. This increased the costs for child-rearing due to heavier investment in education. Essentially, substituting the quantity of children with their quality (Kirk, 1996).

These aforementioned mortality and fertility declines, are expected to cause a demographic shift in the Netherlands. In the next subparagraph this is further elaborated upon.

2.2.2 Demographic transition in the Netherlands

The demographic transition in the Netherlands shows large differences between population decline and growth. The total population, for the time being, will continue to grow. But this growth will mainly be concentrated in cities and the Randstad region, which are growing at the expense of rural regions (Hospers & Reverda, 2012; Ekamper, 2010). These rural regions are often outskirts and peripheral areas, especially areas such as North- and East-Groningen, the Achterhoek, Zeeuws-Vlaanderen and Southern-Limburg, but also parts of Noord-Brabant (Rijksoverheid, 2018). Concerns regarding this population decline started at the end of last century in the political, demographic and business worlds (Coleman & Rowthorn, 2011). These concerns do not derive necessarily from just fluctuations in population sizes. What makes this modern population decline unique and concerning, is that it is driven by ageing, and therefore expected to have major consequences. In the next section, these consequences are further elaborated upon.

2.2.3 Economic consequences

The aforementioned demographic transition will give rise to new issues, challenges and transformations on an economic and social level. Spanning areas such as housing, spatial planning, finance, physical infrastructure, labour shortages, healthcare, social security, social infrastructure and education (Hospers, 2010). Policymakers are concerned about population decline and are actively trying to adopt policies to mitigate their consequences. There is also a growing amount of literature about the social and economic consequences of population decline. In this subparagraph the main economic consequences are discussed, and in the next subparagraph the social consequences are elaborated upon. In subparagraph 4.1.2 and subparagraph 4.2.2 of Chapter 4, these consequences are elaborated upon more in-depth, by focussing in on the regional and local level

Labour shortages

Labour shortages are one aspect arising from population decline and ageing. Policymakers fear there will be a lack of workers in the future, to compensate for the eventual retirement of the baby-boom generation (Lemaître, 2013). There will be a discrepancy between the labour force and the market needs. Impacting the sustainability of economic activities, and potentially hindering its growth. This shortage will be felt at first in the agriculture, horticulture and the healthcare industry (Hospers, 2010). Policymaker question how to guarantee economic growth without losing economic strength (Lemaître, 2013).

Increasing costs of pension and healthcare

Another concern are the increasing costs of financing pensions, as well as healthcare and social support. Contributions have to be earned by a smaller labour force, putting a strain on the public budgets. To maintain the income levels of both workers and pensioners, productivity levels have to be increased. The economic viability of spaces depends on the size of the working population and its quality (McCann, 2017).

Brain drain

Brain drain symbolizes the migration of human capital as a strategic resource, from, for example local places, where it can make the greatest contributor in terms of output, to urban areas that are already well supplied with high-level of human capital (Ramin, 1995). Brain drain is not necessarily a direct (economic) consequence of population decline and ageing, neither a cause, but acts as a reinforcing factor. It is also acting as an agent in furthering the labour shortages of (high-skilled) workers in shrinking areas.

2.2.4 Social consequences

Changes in demographics also have social implications. Population decline can cause a deterioration of the quality of the living environment. The different aspects are discussed below.

Pressure on (public) local facilities

A decline in population means less people will make use of local facilities. Shops, community centres, banks, sport clubs, schools, and churches without members can no longer maintain their activities. These facilities offer inhabitants a place for social interaction, which are crucial for the social cohesion. Through this deterioration, the liveability of the affected area decreases. As mentioned in the introduction, the vulnerable ageing population will suffer most from the aforementioned losses.

Property abandonment

Another issue is property abandonment, which has apart from the economic loss, social consequences. According to Han (2013), property abandonment harms the neighbourhood by lowering property values and increasing crime rates. Lowered property values, in Dutch 'WOZ-waarde', means lower property taxes. Governments will therefore lose revenue streams, which in turn causes more abandonment due to fewer financial resources to improve and maintain neighbourhoods.

In the next paragraph, a solution for mitigating these consequences is discussed: (labour) migration.

2.3 Theory of Migration

In this paragraph, the theory of migration is introduced. The first subparagraph is dedicated to exploring the different theories and lenses to look at migration. This leads to the second subparagraph where the migration flow from Central and Eastern Europe to Western Europe is elaborated upon. The third subparagraph focusses on the impact of immigration on (rural) areas in the Netherlands. Finally, the last section culminates in a brief discussion regarding replacement migration, a theory that puts all three concepts discussed in this chapter together.

2.3.1 Theories and lenses to look at migration

Castles, de Haas & Miller (2014) mention that international migration is an intrinsic part of human society. Two examples from modern history illustrate this; the expansion of the European imperial system through colonialism in the sixteenth century, and the massive rise of urbanization following the Industrial Revolution (Castles et al., 2014). Both phenomena set in motion migration flows; the first is the flow of Europeans moving outwards, in search of global trade opportunities. The second flow describes the movement of rural inhabitants towards industrialized urban areas (Castles et al., 2014). After the second World War, a new migration pattern arose alongside urbanization. International migration from developing countries to developed countries grew. Castles et al. (2014) dub this era the 'age of migration', defined by the truly global character of cross-border movement of human capital. In order to understand intricacies surrounding this 'age of migration', several theories are used to explain underlying causes: functionalist theories (early optimists), historical-structural theories (pessimist) and later on, the theory of the New Economic Labour Migration (new optimist/pluralists).

Functionalists are optimistic about migration. They see society as an interdependent system, where migration contributes to more equality between all the different actors within it (Castles et al., 2014). One of the functionalist's models is the Neoclassical Push-pull Model. It explains migration as a result of rational economic actors, that are pushed out of their place of origin due to either economic, demographic or environmental factors, and are pulled into places of destination. The push factors can be a lack of economic opportunities, whereas pull factors can be the opposite, i.e. the demand of economic opportunities. Labour migrants are encouraged to move to regions with higher wages and a shortage of labour, their motives to move are based on a cost-benefit calculation (Castles et al., 2014).

Historical structuralists are more pessimistic about migration and emphasize how political, economic, social and cultural structures direct the behaviour of actors within a society. Power is unequally distributed, and structural inequalities are reproduced over time. The cheap labour provided by migrants only serve the wealthier countries that benefit from cheap labour and exploitation (Castles et al., 2014). The Segmented Labour Market Theory ascribes to multinational companies, states and employment agencies the role of catalyst for migration. Wealthy capitalist countries cause a structural demand for migrants to perform low-skilled labour, due to the lack of sufficient domestic labour forces, that can fulfil these low-paid jobs.

Later on, the theory of the New Economics of Labour Migration was developed, which describes migration as a decision taken by larger units of interrelated people, such as a household, and is based on risk diversification instead of income maximisation (Castles et al., 2014).

Whatever lens is used to look at different migration patterns, the basic assumption in all theories is that people generally migrate in the expectation to improve their long-term wellbeing (De Haas, 2010). In the next subparagraph, the migration from Eastern to Western Europe after the Second World War is elaborated upon.

2.3.2 Labour migration from Central and Eastern Europe to Western Europe

Although a flow of migration from Eastern to Western Europe was forecasted after the fall of the communist regimes, this did not happen (Black, Engbersen, Okólski & Panţîru, 2010). In the 1990s, opportunities for regular labour migration from Eastern Europe to Western countries remained limited, due to restrictive policies. Nonetheless, there was a consistent flow of irregular migration. Later on, certain Western European countries, lowered the admission rules. The Netherlands introduced a program facilitating labour migration, often only for temporary seasonal work (Pijpers & Van der Velde, 2007). With the accession of ten new Central and Eastern European member states to the EU in 2004 and 2007, internal migration from East to West arose. Whereas the flow of migrants was overestimated in 1990's, the flow after the accession was certainly underestimated (Black et al., 2010).

The labour migration to the West encompasses various temporalities and can be typified in terms of its diversity (Engbersen, 2013a). Engbersen (2013a) describes four dominant patterns of labour migration that reflects this diversity. The first pattern is the group of temporary, circular migrants intending to earn money for several months and then return to their families. This often includes seasonal workers. The second group are transnational migrants, who integrated into the country of destination, but maintain strong ties with their country of origin. A third group are the settlement migrants, those intent to stay in the new country for at least more than five years and have weak ties with their home country. The last group, footloose migrants have few roots in the country of origin and also few in the country of destination and did not develop any intentions yet (Engbersen, 2013a; Engbersen, Leerkes, Grabowska-Lusinska, Snel & Burgers, 2013b).

Migrants from Central and Eastern Europe are seen and treated as being part of the first group of temporary and circular migrants. It is hard to associate an exact number to this group of migrants, due to their temporary nature, and the lack of consistent registration data (Black et al, 2010). However, a growing number of these migrants stay longer than intended, or even settle permanently (Snel & Ostaijen, 2019). They often arrive as single young adults, with the intention of staying temporarily for a few years, but when they grow older and establish their own families, plans change. Furthermore, they are partly integrated into the Dutch welfare system and there are economic reasons to stay as well (Castles, 2017). In the next subparagraph, the impact of these immigration flows on the communities in the Netherlands are discussed.

2.3.3 The impact of immigration to (rural) areas in the Netherlands

The presence of migrants has given rise to new concerns in municipalities and neighbourhoods. It raises new questions about the overall integration into Dutch society of all four categories of migrants, but especially the long-term category (Engbersen, Snel & De Boom, 2010). Labour migrants from Central and Eastern Europe, especially those from Poland, become more visible in society, especially in certain areas, not only because of their increasing number, but also because the institutions they create (or are created for them), such as Polish supermarkets and the so called 'Polish Hotels'. This raises concerns of social problems such as nuisance, especially with the involvement of alcohol; the inability of migrants and their families to speak Dutch; insufficient insurance in order to use medical services; the sometimes irregular and inadequate housing; the lack of registration of migrants making it impossible to rely on exact numbers; crime-related problems (Black et al., 2010).

Furthermore, the diversifying mobility flows, and settlement of migrants contribute to the on-going transformations of the (local) receiving societies, as already mentioned in subparagraph 2.1.1. `Migration simultaneously affects social transformation in [...] receiving societies, which in turn changes the conditions under which migration takes place' (Castles et al., 2014, p. 81). Nevertheless, 'migrant workers provide additional labour in times of high demands resulting from economic, demographic and social shifts' (Castles et al., 2014, p. 260). This demographic shift is underway in most Western countries and will challenge the local resilience. Resilience is defined as 'the capacity of communities to deal with economic and social transformation, the ability to adapt to but also challenge the prevailing circumstances' (Søholt et al., 2018, p. 222). Welfare, participation, networks, social inclusion, collective action and communication are strong assets for building up resilience. Can resilience in peripheral communities be enhanced by international labour migration? The Theory of Replacement Migration, which is introduced in the next subparagraph, further elaborates on this question.

2.3.4 Replacement migration

In this subparagraph, migration and demographic changes intersect. In many Western countries including the Netherlands, the search for appropriate responses to manage future consequences of urbanisation and population decline, has directed the attention to international labour migration (Coleman, 2001). The UN Population Division even published a report 'Replacement Migration', which discussed the global population decline and the below replacement fertility rates, citing migration as a solution for these demographic trends (Coleman & Rowthorn, 2011). Replacement migration is referred to as 'the international migration that would be needed to offset possible population shortages, i.e. declines in the size of population, the declines in the population of working age, as well as to offset the overall ageing of a population' (United Nations 2000b: 5). According to Camarero (as cited in Frederyk Rye, 2018, p. 189) migration can be 'seen as a solution to the problems of depopulation and the loss of economically active population in rural areas'. Søholt even mentions migrants as 'a demographic refill' (2018, p. 221).

Thus, citing international migration as a solution for demographic changes, stresses the importance of studying the interaction and tension between transition space, immigration and population decline, and the inhabitants' attitudes towards these concepts, as detailed in paragraph 1.1. This is due to the fact that especially migration, often evokes mixed emotions among both inhabitants, as well as politicians. 'People may be concerned about population decline, but may reject the opportunities that international migration provides for counteracting further decreases in the population' (Van Dalen & Henkens, 2011, p. 448).

These mixed emotions, can be linked to the two-sided perception on labour migration, mentioned both in the research of PON (Het PON, 2018a) and an article of Van Dalen & Henkens (2011). On one side, the importance of migration for the Dutch economy might be acknowledged by inhabitants. 'International migration would offer employers access to a pool of labour supply, that may mitigate labour market frictions' (Van Dalen & Henkens, 2011, p. 448). On the other hand, inhabitants are concerned about jobs occupied by migrant workers, cultural differences and nuisance caused in the living environment (Het PON, 2018a). This negative side is rooted in the idea that the assimilation and integration of earlier (non-Western) migration flows, has not gone as quick and smoothly as initially anticipated (Van Dalen & Henkens, 2011). The quote below illustrates this.

'Immigration is also a hotly debated issue in the Netherlands, as the percentage of foreigners who live in the country is substantial by European standards (13% of the total population), and immigrants of non-Western origin are met with particular scepticism or even outright hostility. The weak integration of non-Western immigrants is generally seen as a failure, and the general attitude [...] toward immigration is one of restraining inflow.'
- Van Dalen & Henkens, (2011, p. 443)

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2.4 Conceptual research model & Hypotheses

This research attempts to provide a better understanding of local rural community spaces in transition, regarding implications of population decline and the presence of labour migrants, as well as the local population's attitude towards these concepts. Based on the findings in the previous three paragraphs with the theories of space, demographics and migration, a conceptual model was constructed that helped me as a researcher to achieve this aforementioned aim. The conceptual model presents the transition of spaces and rural transformation by demographic changes and new arrivals, and will be shown and elaborated upon in the first section of this paragraph. The second section, discusses the hypotheses formulated based upon the aforementioned theories and the conceptual model. These hypotheses are tested in order to find intrinsic relationships in the data derived from this research, and to find explanations for the observed perceptions of local inhabitants.

2.4.1 Conceptual research model

Based on the findings in the theoretical framework, a model is constructed that presents the transformative process of a space, see figure 2.1. The first, red box, titled 'Shrinking local communities', shows such a space. This space is a construct of social relations, shaped by the multiple identities of humans living within it. It is produced through actions, attitudes, inventions and policies of those humans, as detailed in subparagraph 2.1.1. The two arrows that point at this red box, are of the two concepts that influence this space. The first concept is the diverse mobility flows, i.e. labour migrants from other European member states. The constant inflow of newcomers influences the symbols, networks and social relations of this place. The same applies for the second concept, which is the demographic changes that can alter the demographic profile of the space.

This leads us to the middle part of the model titled 'Space in transition'. The two aforementioned concepts, can change the inherent underlying composition of the existing homogenous space, thus, likewise forming the seeds of a new space in which new relations are generated. In this transformation, attitudes towards, especially migration, are important. Negative attitudes could lead to new constructions of spaces of exclusion, in which the outgroup is outcasted and left to be seen as 'the other'. Conversely, positive attitudes, such as seeing the outgroup as likeminded individuals seeking a better life, could lead to new constructions of spaces of inclusion.

In this model I opted for this last option, that of spaces of inclusion. This is because I believe that with the results of this research, the right policies can be taken towards a more inclusive space. Therefore, the last, orange box, titled 'Vital and Resilient Local Communities', represents a new space, in which the reproduction of the previous space has led to opportunities of new constructions of a space of inclusion for the newcomers. It shows a space in which threats have been reduced through the means of understanding ingroup-outgroup biases, and integration has facilitated inclusion (Søholt et al., 2018). This space is characterized by a strong resilience, including participation, social inclusion, communications and interaction between all humans living in this space.
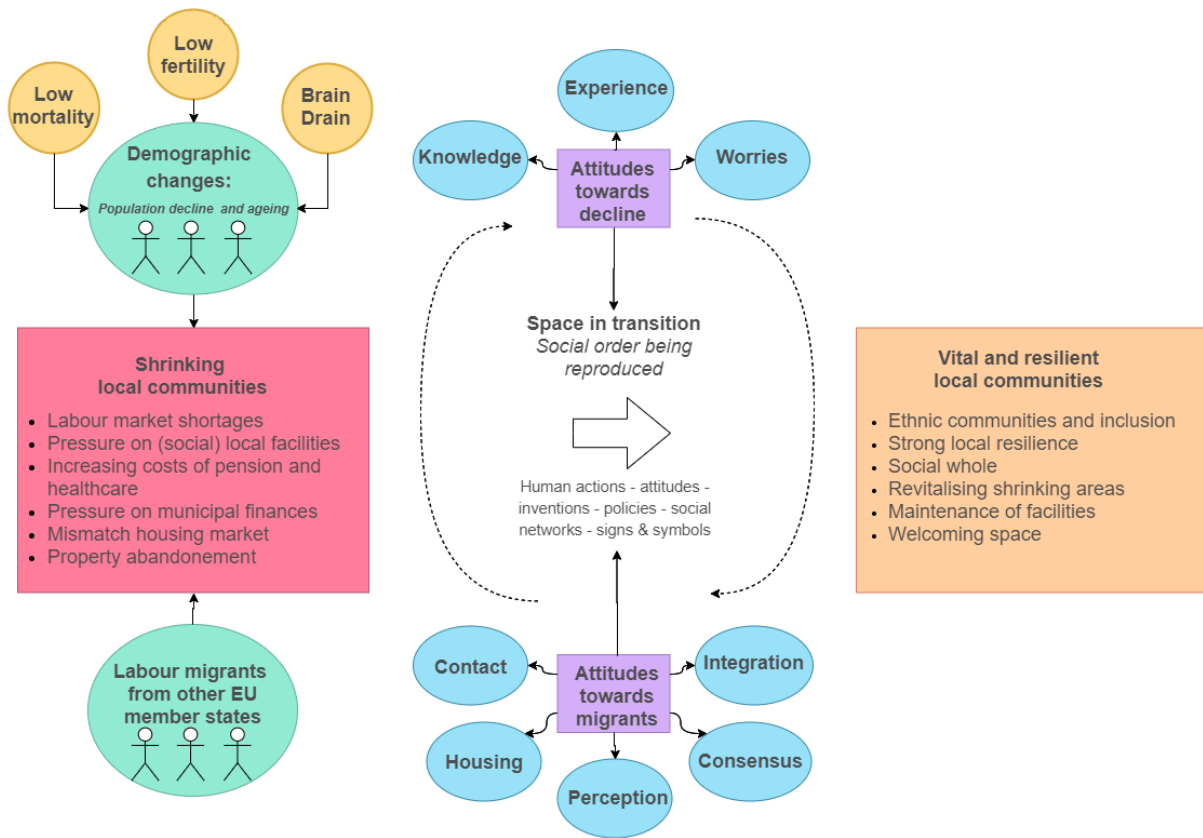
Figure 2.1 - Conceptual Research Model.

2.4.2 Hypotheses

Based on the findings in the literature research on the theories of space, demographics and migration and the conceptual model that builds upon said theories, a series of hypotheses have been formulated within the context of the case study of Halderberge, see paragraph 3.3 for more details. These hypotheses can be found in the table below. Each hypothesis is discussed further below the table.

	NULL HYPOTHESIS	HYPOTHESIS
1.	H_0: There is no relation between the residence (different villages) of inhabitants and their attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge	H_1: There is a difference in attitude between inhabitants from different villages towards labour migrants relocating to live and work in the Netherlands and living in Halderberge
2.	H_0: There is no relation between the age groups of inhabitants and their attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge	H_1: There is a difference in attitude between inhabitants from different age groups towards labour migrants relocating to live and work in the Netherlands and living in Halderberge
3.	H_0: There is no relation between the educational background of inhabitants, and their attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge	H_1: There is a difference in attitude between inhabitants with a different educational background towards labour migrants relocating to live and work in the Netherlands and living in Halderberge
4.	H_0: There is no relation between worries and different genders regarding the arrival of labour migrants	H_1: There is a difference in worries between different genders regarding the arrival of labour migrants
5.	H_0: There is no relation between the degree of personal contact and the perception towards labour migrants.	H_1: There is a relation between the degree of personal contact and the perception towards labour migrants
6.	H_0: There is no relation between level of concerns towards population decline and age group, gender, education level and employment situation of inhabitants	H_1: The level of concerns towards population decline are influenced by the age group, gender, education level and employment situation of inhabitants
7.	H_0: There is no relation between attitudes towards a future role for labour migrants in times of population decline, and age group, gender, education level and employment situation of inhabitants	H_1: The attitudes towards a future role for labour migrants in times of population decline, are influenced by the age group, gender, education level and employment situation of inhabitants
8.	H_0: There is no relation between worries regarding population decline and the attitude towards the future role of labour migrants in shaping transition spaces	H_1: There is a relation between worries regarding population decline and the attitude towards the future role of labour migrants in shaping transition spaces.

Table 2.1 - Table of Hypotheses

1. H$_1$: 'There is a difference in attitude between inhabitants from different villages towards labour migrants relocating to live and work in the Netherlands and living in Halderberge'

Based on the preliminary literature research on the case of Halderberge, as well as the exploratory conversations with the municipal officials, it was noticed that there are relative differences in the number of migrants living in each village of Halderberge. This applies specifically to the village Hoeven, where even one out of six inhabitants is a labour migrant. In subparagraph 4.2.3, this is further elaborated upon. This reality led me to explore whether there are differences in attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge, and the five different villages.

2. H$_1$: 'There is a difference in attitude between inhabitants from different age groups towards labour migrants relocating to live and work in the Netherlands and living in Halderberge'

This hypothesis was built upon the theory of Van Dalen & Henkens (2005), from their research 'The rationality behind immigration policy preferences' in the Netherlands. In this research, the age of respondents did not have a noticeable effect on the evaluation whether the number of foreign labour migrants were too high or not. As a researcher, I want to explore the possibility of replicating the same results, by examining whether age would have an effect on the attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge.

3. H$_1$: 'There is a difference in attitude between inhabitants with a different educational background towards labour migrants relocating to live and work in the Netherlands and living in Halderberge'

This hypothesis builds upon the aforementioned theory of Van Dalen & Henkens (2005) as well. Their research suggests that inhabitants with a lower education, are more likely to believe that there are too many (labour) migrants, whereas the higher educated inhabitants, are less worried about labour migration numbers. This is a result of the different positions on the labour market. The low-skilled labour force is likely to be more affected negatively by the arrival of foreign low-skilled migrants, since these workers are assumed to compete with the local low-skilled workforce. Conversely, the high-skilled workforce, is assumed to benefit more from unskilled migrant labour, due to the use of cheaper labour (Van Dalen & Henkens, 2005). Building on these concepts, and with the knowledge that individuals with different educational backgrounds often fill different gaps within the labour market, it is interesting to explore whether education would have an effect on the attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge, and if so in which way.

4. H₁: 'There is a difference in worries between different genders regarding the arrival of labour migrants'

The labour migration flow from Central and Eastern European countries following the accession of new European member states in 2004 and in 2007, was overrepresented by young male migrants (Black et al., 2010). These groups of young male migrants often form concentrated ethnic minorities in neighbourhoods (Van Dalen & Henkens, 2005). It is interesting to explore whether this over representation of foreign men within a small community can generate a different level of worries across gender lines.

5. H₁: 'There is a relation between the degree of personal contact and the perception towards labour migrants

This hypothesis is built upon the theory of space. According to this theory, meeting people from another group may affect an individual's attitude towards these people or groups of people. This is called the personalisation of people from the out-group. When indigenous individuals have contact with the out-group, it enables them to get to know the other as likeminded individual, rather than as a stereotypical outgroup member, as detailed in subparagraph 2.1.2. Especially social interactions and contacts encompassed at for example work or at school, can improve attitudes (Van Dalen & Henkens, 2005).

6. H₁: 'The level of concerns towards population decline are influenced by the age group, gender, education level and employment situation of inhabitants'

Control variables[1].

7. H₁: 'The attitudes towards a future role for labour migrants in times of population decline, are influenced by the age group, gender, education level and employment situation of inhabitants'

Control variables[1].

8. H₁: 'There is a relation between worries regarding population decline and the attitude towards the future role of labour migrants in shaping transition spaces.

This last hypothesis is mainly built upon the theory of Van Dalen & Henkens (2011), as detailed in subparagraph 2.3.4. In this research, it is mentioned that 'the arrival of new immigrants seems to generate greater fear, than the prospect of population decline' (Van Dalen & Henkens, 2011, p. 458). To test this assumption for the case of Halderberge, the concerns towards population decline are compared to the attitude of inhabitants towards a future role for labour migrants in counteracting the effects of decline.

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[1] *It is common practice to use control variables such as age group, gender, education level or employment situation. Control variables are variables that are not of primary interest, but are used to estimate whether an effect is independent from the influence of external factors, whose influence should be controlled (Pole & Bondy, 2012).*

3. Methodology

In this chapter, the methodology of this thesis is explained. The chosen methodology structure of this research is based on the 'Research Onion' of Saunders, Thornhill & Lewis (2019), as it illustrates the structure in a clear and comprehensive way, which guided me through the necessary steps to achieve my research goals. The chapter starts with explaining the various research philosophies and the decision behind choosing positivism and interpretivism. The following section details the choice behind a deductive and mixed methods research approach. The research strategy section elaborates on the decision to go with a single case study design. In subsequent section, the process of data collection is explained and the reasoning behind the methods used. The survey design section details the survey considerations and structure, while the data analysis paragraph elaborates on the necessary steps and tools used to extract results from the data. Finally, this chapter ends with a reflection on the methodology.

3.1 Research philosophy

In this section the philosophical position that was adopted during this research is explained. During this process five major research philosophies were considered, which are positivism, interpretivism, critical realism, pragmatism and postmodernism (Saunders et al., 2019). In this research, I opted for both positivism and interpretivism, due to their focus on the nature of reality. In the following section this choice is further expanded on.

To explain the decision behind the use of both approaches, first it helps to find what each philosophy entails. Positivism is a philosophy that revolves around objectively, observable, unbiased facts, and subsequently tries to explain said facts in a highly structured quantitative approach. It provides hypothetical explanations to be tested and confirmed (Saunders et al., 2019, p 146). On the other end of the spectrum, the interpretivism philosophy sees social reality in the light of personal beliefs and lived experiences, including meanings, perceptions and attitudes individuals attribute to said experiences. It believes that individuals, construct their own social world and their own reality (Saunders et al., 2019). In summary, one philosophy focuses on the objective social reality based on hard facts. While the other focuses on the subjective sense of reality constructed through the meanings attached to this reality. The decision to use a combination of both stemmed from the core research objective. This objective is to discover objectively observable perceptions of the local inhabitants on labour migration and demographic changes, as well as interpret the reasons and meanings behind said perceptions.

The positivism philosophy manifests in this research through the use of hypotheses which are developed based on the theory. These hypotheses are tested in order to find intrinsic relationships in the data and factual explanations for the observed perceptions of local inhabitants. The results of these tests can also create generalizable facts, in case of replication in a second or third case study. This approach is supported through the interpretivism philosophy, which describes the complexity of attitudes, perceptions, opinions and meanings towards the transition space incurred by labour migration and demographic changes. This approach helps mitigating the downfalls of relying on a positivism standpoint only, as results that appear to be the same on the surface can have different interpretations based on individual circumstances (Saunders et al., 2019).

3.2 Research approach

In this paragraph, the research approach is discussed. In the first section the two contrasting approaches of deductive and inductive are explained, and the choice for the deductive approach is elaborated upon. In the second section, the choice of using a mixed approach combining both quantitative and qualitative methods is elaborated upon.

3.2.1 Approach to theory development

Deductive or inductive research are two contrasting approaches. Deductive research starts with theory, often extrapolated from academic literature. Based upon which, a series of hypotheses are formulated and subjected to testing (Saunders et al., 2019). The inductive approach starts with collecting data in order to discover a certain phenomenon, a pattern or to identify a theme to build a theory upon. (Saunders et al., 2019). The main approach chosen for this research is the deductive one, which manifests in the development of the theoretical framework, based on existing literature. This approach helped me as a researcher to get an overall idea of the main concepts of transition spaces, demographic changes and labour migration, as well as to develop the methodology and guide the data collection, which is elaborated upon further in the following sections. Basing this research on a solid theoretical foundation, also ensured that any potential bias on my part, as a researcher, is mitigated.

3.2.2 Methodological choice

Guided by the choices discussed in the research philosophy section, where a combination of two contrasting philosophies were discussed, a mixed method of both quantitative and qualitative research was chosen. This choice is further expanded on below.

Mixed Methods
In this research, I aim to focus on the perspectives of a wider sample of the rural population, without exclusion. This is due to the lack of an overall representation of all actors within the rural community, as detailed paragraph 1.4. At the same time, in-depth data on attitudes, perceptions and meanings of this group is of utmost importance for the internship company the province of Noord-Brabant. This calls for the use of an approach that mixes both quantitative and qualitative methods.

Quantitative research is rooted in analytical approaches relying on numbers and statistics. It is about causal relationships and objectivity, and it makes use of predetermined response categories (Yilmaz, 2013). Quantitative research offers the opportunity to reach a broad public and it also provides respondents the opportunity to stay anonymous, whereby given answers might be more honest. Another advantage is that myself, as the researcher, play an external role, which means my values do not hold influence on the given answers (Saunders et al., 2019). Relying on a quantitative approach also offers the opportunity to reach potential respondents virtually, excluding the need for direct personal contact, which was not possible under the measures implemented to combat the covid-19 pandemic, see Notice.

In addition, this research also employed qualitative methods. They are descriptive in nature, and are rooted in the meanings attributed by individuals with regards to their experiences of the world. This approach makes use of open-ended responses (Yilmaz, 2013). These qualitative methods require a very systematic approach with regards to which local actors should be included, and the subsequent risk of exclusion. Using this approach met the requirement for gaining in depth insights into social relations and the lived experiences of the local inhabitants. It allowed me to collect, organise and interpret quantitative material gathered using the previous method.

In summary, the mixed methods approach used in this research acknowledges that both qualitative and quantitative approaches, have their advantages, as well as inherent weaknesses. Therefore, it is assumed that 'the sum of the data collected [using a mixed approach] will be richer, more meaningful, and ultimately more useful in answering the research questions' (as cited in Johnson et al., 2007, p. 121). The data collection of this mixed methods approach is further elaborated on after the research strategy, in subparagraph 3.4.2.

3.3 Research strategy

In this research, the focus is on the concepts of transition spaces, demographic changes and labour migration. To identify how these concepts congregate, a case study design of one local case within the broader context of Noord-Brabant was chosen as a research strategy. The case in question is a municipality located on the rural edge of west Noord-Brabant. In the following subparagraph, I first explain more about the choice for a single case study strategy, following that, the benefits and disadvantages of this choice are detailed. The second subparagraph, is dedicated to further explaining the reasons behind choosing Halderberge as the location of this study.

3.3.1 Case study

The scope of this research is the province of Noord-Brabant, which was also the host of my internship. Together with my internship supervisors, the focus of this research was defined to be a case study within this province. The desires of the province aligned with the core concepts this research wished to explore, which was how transition spaces, demographic changes and labour migration, come together on a local level. The internship company thus suggested several options of potential municipalities that could be selected within the scope of the aforementioned concepts.

With the general scope defined, and with a host of viable locations available, a decision had to be made regarding the nature of the case study. According to Creswell & Poth (2018, p. 97) a case study is defined as 'an approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information'. With this explanation in mind, I decided to focus on a single case study as opposed to my initial plans to move forward with two cases. The rationale behind this change of course, was heavily influenced by the extenuating circumstances of covid-19 under which this research was conducted. The measures implemented to halt the spread of this virus, hampered and delayed the research process, and therefore it increased the viability of conducting a single case study.

My reservations towards using a single case study approach mainly stemmed from the inherent risks that come with such a limited scope. The single case design, in comparison to the multiple case design, lacks the possibility of replication, lacks the possibility of comparing differences and similarities on a broader context, and results are less powerful (Yin, 2003). Therefore, results and conclusions drawn on this research are not generalizable for the whole province.

With all things considered, a single case study was the only sensible choice. A choice that is not without its merits as conducting a research with a singular focal point, means that the incurred results contain in-depth data, data that can later be expanded upon in future research. See paragraph 6.3 for more details.

3.3.2 Selection of the case

Given the circumstances discussed above, the selection of which location to focus on, had to be done systematically. There were multiple reasons behind the choice of Halderberge. The first reason is because Halderberge is located on the rural outskirt of Noord-Brabant, where the population is predicted to decline and age earlier than the more urban regions, potentially leading to a demographic transition. As will be discussed in greater details in Chapter 4, in Halderberge, the percentage of people aged above 65+ will be 31% in the year 2040, whereas this was at 22% in the year 2017, see table 4.5 and 4.6 in Chapter 4. Another reason for selecting this case, is the presence of labour migrants. According to the official data, Halderberge houses, at least, around six hundred registered migrants, see table 4.8 in Chapter 4. Considering the fact that more than half of the migrants are not even registered, this number is likely much higher, see for more details box 4.1.3 in similarly named paragraph. A third and last reason for choosing Halderberge, is that the municipality recognizes the social relevance of the topics of demographic changes and labour migration, which affect all policy areas. They are active in policy making with regards to labour migration and therefore have a broad political consensus. These factors make it so that the results of this research are of great interest to the municipality, who has shown willingness to deploy them. In addition, the municipality has appointed individuals responsible for the approach to labour migration, which makes it easier for me, as a researcher, to cooperate with them and to gather the right kind of data.

3.4 Research methods

After clarifying the research strategy and research approach, it is important to consider the data collection including sample selection. In this paragraph, the different methods that were used to gather and measure information are discussed. These methods enabled me to answer the stated research questions, test multiple hypotheses and evaluate results. The methods highlighted below are literature research and the choice of combining a survey with interviews.

3.4.1 Literature research

This research follows a deductive approach and thus, the first data collection method employed is literature research. Extensive research was conducted on academic literature focussing on the themes of spaces, demographics and migration. The studies of Søholt et al. (2018), Lefebvre (1991), Kirk (1996), Hospers (2010; 2013), Castles, de Haas & Miller (2014), Engbersen (2013) and Van Dalen & Henkens (2011) were very useful to form the basis of the theoretical and conceptual framework. This body of academic research was also supported through the use of varied grey literature sources. Consisting of official reports, policy statements, internal documents and websites from the Province of Noord-Brabant and Halderberge. Furthermore, the researches of PON and CoMensha, as well as different news articles. This combination allowed me to frame my research, where grey literature was a catalyst and the academic literature formed the solid foundation from which I departed.

3.4.2 Mixed methods

As mentioned in subparagraph 3.2.2, this research uses the mixed methods research approach, combing both a quantitative approach consisting of a survey, and a qualitative supportive approach of follow-up interviews. To be specific, the chosen approach is that of a sequential explanatory mixed method strategy due to the considerations given to the timing and weight given to each method. The timing in this research is in phases, sequentially (Creswell, 2009). The first phase is the quantitative data collection, followed by a second phase of qualitative interviews. The weight or priority in this research is given to the dominant quantitative data collection. The qualitative information has a supportive role to interpret quantitative results (Creswell, 2009). The resulting data of both methods utilized in this research is neither integrated, nor connected, but the secondary results of the qualitative interviews are embedded within the larger results of the dominant survey results (Creswell, 2009).

In summary, this strategy is 'characterized by the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results' (Creswell, 2009, p. 211)

3.4.3 Survey

The first phase of this mixed methods strategy is quantitative data collection, in the form of a survey. In subparagraph 3.2.2, several reasons were mentioned for this quantitative approach, such as the aim to focus on a wide sample, the advantage for respondents to stay anonymous, the opportunity to reach the sample virtually (due to corona), researchers' values do not influence the given answers by respondents. In addition, the municipality of Halderberge offered the use of their Digipanel platform as a mean to distribute my survey online. The Digipanel 'is a good form of citizen participation. The fact that the members have chosen themselves to be part of the panel, means that they take the time to seriously complete questionnaires' (Geus, 2019). The research agency Citisens operationalises the Digipanel of the municipality of Halderberge, and was therefore involved in spreading the questionnaire (Citisens, 2020a).

The survey was open for a period of two weeks, from 22th of June until 2nd of July 2020. To maintain the integrity of the data, few steps were taken into account, to ensure that the survey could reach as many individuals as possible regardless of their age and internet connectivity. The survey thus was spread out using various methods. Besides the aforementioned Digipanel, the survey was also spread two or three times a week on the social media accounts of the municipality. In addition, it was weekly published in 'de Halderbergse Bode' and on the newspapers' website. Furthermore, a phone number was provided and spread alongside the survey, this allowed participants to complete the questionnaire either on paper or remotely while talking to an operator. In the next section, I will further expand on the sample selection.

Sample Selection Survey

The availability of the Digipanel platform as one of the venues through which I could distribute the survey, presented me with the opportunity to target a sample of the overall population. This is due to the fact, that the Digipanel consisted of a varied group of around seven hundred individuals. They include local inhabitants; both active and non-active; young and old; men and women. Ensuring that this targeted group of individuals was diverse enough and large enough, served as a mean to mitigate the risk of having a very skewed sample of inhabitants considering all of the methods used. This is crucial since the size of the selected sample for this research needed to be large enough to correspond to the total population of Halderberge, which is 30.294 as of 1-1-2020 (Gemeente Halderberge, n.d.).

3.4.4 Interviews

The second phase of this research is a quantitative one, which was achieved through semi-structured interviews. As touched upon in the previous sections, the purpose of these interviews was to support the results of the data and to gain in-depth knowledge into the individuals' perception. This was achieved by giving interviewees the chance to further elaborate on perceptions, feelings and experiences, in an open-ended manner, guided through a loosely predetermined path. This loosely predetermined path helped to align with the themes and purpose of the survey, while maintaining room for changing the order or adding questions during the interview (Longhurst, 2010). The results of this qualitative data have helped tremendously during the analysis process.

The pre-set question list can be found in Appendix H. This interview guide follows a clear structure; a brief introduction welcoming the interviewees; introducing myself as a researcher; mentioning the goals; the timeframe; the use of the data of the interview; the interview questions. These interview questions are divided into the same topics as in the survey design, and closely related to their survey counterparts, see paragraph 3.5 for more details. In the following section, the selection of participants for the interviews is further expanded on.

Sample Semi-structured Interviews

Participants for the interviews were selected based on their response to a survey question regarding their willingness to participate in a follow-up in-dept conversation. Ninety-six anonymized e-mail addresses were provided, and after a random selection, interviews were conducted with five individuals. These interviews were conducted by phone, and recorded with an audio recorder. The interviewees consisted of three men and two women, representing four out of the five villages of Halderberge, as well as four distinct age groups. As touched upon in previous section, the aim of these interviews was not to form a representation of the population, but to help interpret the survey results and gain more in-depth insides (Longhurst, 2010). The table below provides an overview of the participants interviewed, see table 3.1.

	Participant A	Participant B	Participant C	Participant D	Participant E
Residence	Oud-Gastel	Hoeven	Oud Gastel	Bosschenhoofd	Oudenbosch
Age	25-39 year	40 - 64 year	< 24	65 - 79 year	40 - 64 year
Occupation	Employee	Employee	Student	Retired	Employee

Table 3.1 - Demographic data of interview participants; residence; age; occupation.

3.5 Survey design[2]

In this paragraph the survey considerations and survey structure are elaborated upon.

3.5.1 Survey considerations

During the process of developing the survey, few aspects were considered. The goal was to ensure that the questions were clear and understandable for a diverse crowd. To achieve this the statements were chosen precisely and were divided into distinct segments. Another aspect to consider was assigning the right scale to each question or statement. The chosen scale needed to be both varied enough to capture a wide range of sentiments, but structured enough that it would offer the possibility to reverse the sentiment at random intervals, thus mitigating the risk of bias, and maintaining the consistency and reliability of the resulting data. With that in mind most questions were fixed response, which means responses were either numeric, categorical, checklists or yes/no answers. They provided data on fixed opinions, rated on a scale, as well as demographic information (McLafferty, 2010). The seven-point Likert scale was the most appropriate scale for the requirements set above and thus was the most used throughout the survey. It 'presents a range of responses anchored by two extremes, opposing positions' (McLafferty, 2010 p. 80). An odd number of seven options gave respondents the opportunity to choose a neutral answer. The Likert Scale also allowed for room to interpret the respondent's perceptions and attitudes in a contained manner. It also provided the ability to conduct comparative analysis with more depth than a simple yes/no question. To ensure the quality of the survey, filling-in each question was mandatory and respondents were not allowed to skip any questions.

It is worth mentioning that the process of drawing up the survey was conducted in close collaboration with various parties. Among which the supervisors of the province of Noord-Brabant; Marleen van der Haar, employee of PON; Marjolein Bömer, employee of the municipality of Halderberge; Citisens. This collaborative approach reduced the need for pre-testing the survey, which is often recommended (McLafferty, 2010).

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2 Questionnaire was inspired by a questionnaire from PON (2018b) and partly based on a questionnaire from Gemeente Tholen (2019).

3.5.2 Survey structure

For the survey, a standardized questionnaire was developed, based on the theoretical framework and the conceptual model. The conceptual model presents five themes, that are related to the attitudes of local residence towards labour migrants. These five themes are important within the transformative process of a transition space, leading to possible opportunities of new constructions of inclusion or exclusion. The first theme revolves around the Experiences and Contact Frequency between the local inhabitants and labour migrants. The second theme is Perceptions, essentially examining how these local inhabitants perceive migrants and in what way. The third theme moves from measuring the pre-conceived notions in the second theme, and focuses on the Consensus, i.e. measuring the overall attitude of local inhabitants towards the presence of said migrants. The fourth theme revolves around Integration, how do the local inhabitants assess and feel about this process. The fifth and final theme is dedicated to population decline. Each theme group together related questions.

Besides the themes based on the theoretical framework, other structural elements were added to the survey, such as an introduction, a section about housing, general questions and demographic information. These elements were added to help gain more information about the respondents, or to satisfy requirements given by the municipality. In Appendix C the final questionnaire can be found.

The final questionnaire was translated into a codebook. The codebook presents how the information obtained from each question was converted into a format that facilitated the analysis process through tools such as IBM SPSS (Pallant, 2016). It includes labels of each of the variables, as well as values assigned to each response category. In the following section, the different parts of the survey are discussed. For more information, refer to the codebook in Appendix D.

Introduction
The individual survey starts with an introduction of the topic, the main concepts, the survey goals and the collaborating parties.

Section A – Experiences and contact frequency
The first theme is about the kind of experiences and contacts inhabitants have with labour migrants. It includes one matrix rating scale question, consisting of nine statements and three answer categories. This thematic was chosen, as it gives important insights into the nature of contact between inhabitants and labour migrants, which is assumed to be an important factor for how respondents answer the questions in the coming themes. According to the theory of space, meeting people from another group may affect one's personal attitude towards this group, as detailed in subparagraph 2.1.2 and 2.4.2: Hypothesis 5.

Section B – Perceptions
In the second theme, respondents are asked about their perceptions on labour migrants. It includes one slider question, with nine statements. These statements are formulated on the basis of the 'two-sided perception towards immigration' as mentioned subparagraph 2.3.4. The statements were formulated to test the two-sided nature of perception, be it positive or negative. The fixed-response is a seven-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. An

external option labelled 'I don't know / no opinion' was added following the PON survey, to allow respondents to omit answering the question, but still contributing to the survey. This option was included in all Likert-scale questions, and was later coded as 'missing values', see analysis subparagraph 5.1.1 for more details.

Section C – Consensus

The third theme is about respondent's consensus toward the presence of labour migrants, and is based on the theory in subparagraph 2.3.3, which describes the impact of immigration on (rural) areas. This theory mentions that the presence of labour migrants has given rise to new concerns in municipalities, such as integration; visibility in society; social problems; irregular housing; language barriers. This consensus is again an important part of the conceptual model as well. In a low consensus minded community towards newcomers, transformative processes are not likely to transit the community into a welcoming space, as detailed in subparagraph 2.1.2 and 2.1.3. This theme includes five questions which are further discussed.

The first and second question are both slider questions, with a fixed seven-point Likert scale ranging from 'a very bad thing' to 'a very good thing'. The third question includes five statements, and is again a seven-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. The fourth question is a seven-point Likert scale slider, concerning a statement about whether respondents are worried about the arrival of labour migrants. Respondents that filled in '(slightly/strongly) agree' (Likert scale 5,6,7) were redirected to a follow up checkbox question about the kind of worries they have.

This checkbox question includes ten checkboxes where respondents can mark their worries regarding labour migrants. The first checkbox is 'culture threat' which includes all threats to a local's culture and social cohesion. The second checkbox is 'community threat' which includes basically anything that is related to breaking the (unwritten) rules: no respect for customs; lack of integration; not feeling at home anymore; worries about the future of the community; congregating; the high numbers; drowning out the locals. Other categories are 'crime' and 'nuisance'. Nuisance includes anything that is annoying for other local residents such as noise, lack of hygiene and trash. Other checkboxes are 'housing problems', 'exploitation of employees', 'lack of integration', 'duration of stay'. Furthermore, there was a category for open answers 'about something else, namely', giving respondents the option to add their worries in an open format which can give better insight into thoughts. Please refer to the data enrichment subparagraph 5.1.2, to see how these open answers were handled. A last checkbox was a category 'I don't know / no opinion', giving respondents the possibility to skip the provided list of worries.

Section D – Integration

The fourth theme starts with a short and simple introduction of the meaning of integration. It revolves around the importance of integration in society and who is considered as responsible for this process. This thematic was added to the survey, because as detailed in subparagraph 2.3.4, weak integration of migrants is generally seen as a failure, and the general attitude is therefore one of a restraining inflow. This suggest that integration is a major factor with regards to the aforementioned themes. Therefore, adding this theme offers the possibility to test this theory for the case of Halderberge. This section includes one slider question with a seven-point Likert scale and one multiple choice question with seven response categories.

Section E – Housing

This theme is about housing and was added to the survey based on the request of the municipality Halderberge and is not included in the theoretical framework as the other themes. The municipality of Halderberge is working on an inclusive framework regarding the humane housing for labour migrants. These questions are formulated by the municipality itself and the results will play a minor role in this analysis. This section includes one slider question, two multiple choice and two ranking questions.

Section F – Population decline

The fifth and last theme is about population decline and the potential role labour migrants can play in this, according to the respondents. This section includes one multiple choice question with three response categories and two slider questions with a fixed seven-point Likert scale. The questions and related statements in this theme are based on the theory in subparagraph 2.3.4. The theory in question suggests that people may be concerned about population decline, but may reject opportunities that labour migrants provide for counteracting consequences of decline.

Section G – Closing questions

In this section respondents are asked, among other things, whether they are interested in being interviewed to elaborate further on the topics of the survey, as detailed in subparagraph 3.4.4.

Section H – General questions

The survey ends with a few general questions about place of residence, age, education and occupation of inhabitants. This demographic data is added, because it offers the opportunity to link specific meanings, perceptions and experiences to individual characteristics such as the aforementioned. This section is also closely related to Chapter 4, which shows the number of migrants is not equally divided over the municipality. This is expected to influence the results.

Regarding age, the categories are divided by the different age generations. The first and youngest category '< 24' refers to generation Z. The second category '25 - 39', refers to the millennial generation or the so-called generation Y. The third category is '40 - 64' and refers to generation X. The category '65 - 79' refers to the baby boom generation. The last category is '80 >'. Regarding education, the answers in the survey were translated to English, but the original Dutch statements can be found in the codebook. The same counts for occupation. Most categories are self-explanatory, but in Dutch a 'ZZP'er' is a freelancer/self-employed without personnel. A 'zelfstandig ondernemer' was translated as entrepreneur whom might have personnel, but could also be a ZZP'er without personnel.

3.6 Methods of analysis

In July 2020, I received the survey data collected by Citisens (2020b). In total 677 inhabitants responded on the questionnaire. Subparagraph 5.2.2 further details the demographic data of these respondents. In this section, the analysis of the survey and the interviews are briefly discussed, see Chapter 5 for more details. This is followed by presenting the approach used to handle errors and outliers.

Survey

First of all, this study was conducted to understand the perceptions of local inhabitants about the transition spaces incurred by labour migrants and population decline. Secondly, this research was intended to uncover relations between several listed variables that could help answer the sub-questions. For instance, does someone's place of residence, age or educational background influence their attitude towards labour migrants? Does gender influence the type of worries respondents have towards labour migrants? Does having personal contact with labour migrants influences perceptions about them? Does a higher level of concern about population decline result in a more positive attitude toward a potential future role for labour migrants? Several techniques were applied to see whether there are significant relations, such as the analysis of variance (ANOVA), Chi-square test, multiple linear regression and the t-test (Pallant, 2016). These analyses were conducted by the use of IBM SPSS, Tableau and Jupyter.

Interviews

After the interviews, the audio recordings were transcribed through oTranscribe software. The transcribed interviews were thoroughly scanned, to get an initial sense of their contents. Thereafter, interesting phrases were marked to identify major ideas (Creswell, 2018). In order to illustrate some of the data and also highlight some of the opinions of inhabitants, some direct quotations from the interviews were used in the analysis of Chapter 5. Together with the quotes derived from the survey, this gives the reader the possibility to interpret the different tables. A summary of the most important findings of the interviews can be found in subparagraph 5.3.3 and 5.4.3

Errors and outliers

The raw data received by Citisens, was checked for errors and outliers using IBM SPSS. For categorical variables, errors were checked using procedures such as 'frequencies' and 'descriptives', please refer to Appendix F. For the seven-point Likert scale, no values out of the norm were found. To detect the presence of skewed values, charts such as histogram and boxplot were employed. Simple pie diagrams and bar charts were made and compared with the report of Citisens (2020b), to identify any potential issues with the data file provided. A mistake was discovered in the age groups. Respondents starting from row 333 to row 677 were all assigned a value of '1', which refers to the age group '< 24'. This fact did not align with the municipalities' report. Citisens indeed confirmed a small error had occurred. They had mistakenly linked the data of the respondents addressed via the Digipanel platform (of which background characteristics were already known by them), and the respondents that filled in the open link (that were asked for their age). When it comes to handling outliers, a balance must be struck. On one hand, extreme values can drastically

sway the outcome of the research, as many analyses methods can be sensitive to large variations (Pallant, 2016). On the other hand, in a research of this nature, it is difficult to analyse and manage outliers. Most questions refer to opinions and perceptions. If a respondent's views are very different from the rest of the participants, that does not necessarily mean they are an outlier, since it is their prerogative to express their opinion as they wish.

3.7 Methodological reflections

After clarifying all sections of the research process, this section is dedicated to reflect on the methodological choices made. In particular, the three notions of reliability, validity and ethics are discussed, as they influence the quality of a research design.

Reliability

Reliability is defined as 'the ability of the measure to produce the same results under the same conditions' (Field, 2018, p. 59). One method, to assess reliability, is to test twice the same group of people (Field, 2018). During the design process of this research, the use of mixed methods was chosen, this approach allowed for testing the same sample of respondents twice. The interviews and the survey not only shared the same pool of respondents, they also shared the same theme's, and they were conducted at different time intervals. Results derived from the interviews, as well as the survey, yielded similar outcomes about some of the topics. This indicates that at least for the municipality of Halderberge, these consistent results showcase a strong reliability.

Validity

Validity 'refers to whether an instrument measures what it was designed to measure' and is divided into internal and external validity (Field, 2018, p. 59). Internal validity is about the extent to which there is a cause-and-effect relationship between a certain phenomenon and an outcome, that cannot be explained by other factors (Bhandari, 2020). The external validity deals with whether the results of a study are generalizable beyond the specific case study, and if findings can apply to a broader context (Yin, 2003).

      Similarly, to what was discussed in the reliability section, the strength of the internal validity of this research stems from the use of the mixed methods strategy. This strategy ensured a comparable control, between quantitative and qualitative data. As both the survey and the interviews yielded comparable results across different themes, different age groups, different residence and across genders. Another aspect is the large sample size of this thesis, which ensured the data was less sensitive to any variability to the outcome, especially given the anti-bias measures employed in the survey design, the open-ended interviews and random selected interviewees (Bhandari, 2020). On the other hand, the external validity of this research can be seen in two lights, on the level of Halderberge, this research is both reliable and valid since different villages within the municipality were tested and the research was inclusive to different demographic layers. However, due to the fact that only a single case was conducted during a pandemic, it is difficult to assess with certainty whether the outcome of this research can be generalizable to the province as a whole or during a different time period. Only if a second or even a third case gives the same results, they might be generalizable (Yin, 2003).

Ethics

The ethics of a given research project vary on the nature of said research, its intended audience and the overall goal of the research. One aspect that was given the utmost importance during the design of this research, is the anonymity of the participants and the safe guard of their personal data. To achieve this, participation in the survey was anonymous, all the forms of identifications were kept in separate documents to the answers on the survey, and thus couldn't be tracked back to the individual. This process was handled by Citisens and the municipality, and any data used for this research was provided by these parties after considering all the checks and balances.

Another aspect that was considered, was the clarity and intentions of this research, ethically speaking it is important that when someone is called upon to participate in a research or survey, is that they are aware of the purpose of said research, as well as the intentions behind it. This way they [potential participants] can make the informed choice about whether they would like to move forward with responding on the survey or with signing up to be interviewed. To achieve this transparency, the survey had an introduction section which explained the main topic including the definition of labour migrant, survey goals, the involved parties in the research, the fact that the scope was that of a master thesis research, the length of the survey and the anonymity.

In the interviews, interviewees were not anonymous to myself, as the researcher. However, as mentioned above, the potential interviewees could not be linked to their survey answers, as their desire to participate, was anonymous, and was also provided in a separate document, and finally the selected individuals to contact, was done randomly. Prior to the selection, the potential interviewees were informed that the interview would be recorded and transcribed, and were only selected if they gave their permission. For the interview process, I tried to ask questions in a value-free way without judgements. In this way, I tried to make the interviewees feel as comfortable as possible to speak freely. The interviewees indeed shared both their positive and negative experiences. Though, prior to a negative argument, some of the participants, used expressions such as 'I am not against migrants/foreigners, but…', this suggests that there was a sense of discomfort on their part, and it is important for future research that more attention is paid to such sensitive topics, to allow the participants more comfort to express their thoughts, especially since a similar pattern was detected in the open answer segment of the survey.

4. Case description

This chapter is about the transition space of Halderberge, and the broader context of Noord-Brabant, incurred by demographic changes and labour migration. This chapter answers the sub-questions 1 and 2 as formulated in paragraph 1.2: 'What characterizes the transition space incurred by demographic changes in Halderberge in the provincial context of Noord-Brabant?' and 'What role do European labour migrants play in shaping this transition space?'. The first paragraph elaborates upon the provincial level of Noord-Brabant, and the second paragraph on the local level of Halderberge.

As detailed in Chapter 3, this research focusses only on one case study. The results are therefore not generalizable for the whole province of Noord-Brabant. Nevertheless, I decided to keep a description of the broader context of the province present in this research. It gives a better overview of the situation on provincial level, and it might be useful for other municipalities interested in conducting a similar research in the future. See paragraph 6.3 for more details.

4.1 The transition space of the province of Noord-Brabant

This paragraph is about demographic changes and labour migration in Noord-Brabant, and is divided into three sections. The first section explains the context area of Noord-Brabant. The second section discusses the transition space incurred by demographic changes. The third section discusses the transition space incurred by labour migration.

4.1.1 Context area of Noord-Brabant

Noord-Brabant is located in the south of the Netherlands. The province is subdivided into four regions: West-Brabant, Central-Brabant, North-East Brabant and South-East Brabant (Provincie Noord-Brabant, n.d). In the region West-Brabant, Breda is the main city where the majority of services are centred. Industry and trade (logistics) are the most important sectors (Cup, 2020). Central-Brabant has Tilburg as the main city. The economy is diverse, but industry, the service sector and logistics are strongly present. The region is closely connected with the east part of the Randstad (Regio Hart van Brabant, n.d). North-East Brabant has 's Hertogenbosch as the main city, where the office of the province is located. The region is also called the 'Agrifood Capital', because agri-food is its economic engine (Agrifood Capital, n.d.). The last region is South-East Brabant, with the city of Eindhoven. It is also known as the 'Brainport', due to its famous high-tech sector with the technical university of Eindhoven and well-known companies such as Philips and ASML. Table 4.1 below shows the population numbers per region.

	West-Brabant	Central-Brabant	North-East-Brabant	South-East-Brabant
2019 Population	709.200	410.150	663.325	780.750

Table 4.1 - Population of Noord-Brabant per 31-12-2019 (Provincie Noord-Brabant, 2020).

4.1.2 Demographic changes in Noord-Brabant

As mentioned in the introduction paragraph 1.1, after the year 2040, the population of the province of Noord-Brabant is predicted to decline and reach the highest point of ageing. It is forecasted that the share of individuals over 65 years old in the province will then be 27,5% of the total population, and in the rural areas it would even reach 31,5% of the population (Provincie Noord-Brabant, 2017c; CoMensha, 2019). This is the result of a decline in birth rates, which means a decrease in the number of young people under the age of 20, and a faster increase in the number of elderlies. This results in a higher demographic pressure, which is the sum of the number of people aged 0 - 20 and 65 or older, in relation to those in the age between 20 – 65. Table 4.2 shows that this demographic pressure in Noord-Brabant was in the year 1995 lower compared to the Netherlands as a whole. But after the year 2000, the demographic pressure of Noord-Brabant increased at a faster rate than the national average (CoMensha, 2019, p. 4).

	The Dutch Population by Age (%)				The Noord-Brabant Population by Age (%)			
	1995	2000	2010	2017	1995	2000	2010	2017
< 20 Years	24.4	24.4	23.7	22.3	24.5	24.5	23.4	21.7
20 - 45 Year	39.7	37.6	33.1	30.9	39.8	37.6	32.3	30.0
45 - 65 Year	22.7	24.3	27.9	28.2	23.8	25.2	28.6	28.9
65 To 80 Year	10.1	10.4	11.4	14.0	9.3	10.2	12.1	14.7
80 Years >	3.1	3.2	3.9	4.5	2.4	2.5	3.6	4.6

Table 4.2 - Age structure of the Netherlands and Noord-Brabant between the year 1995-2017 (CBS, 2019; CoMensha, 2019).

Regional and municipal differences in growth and decline in Noord-Brabant

In the previous section, it was mentioned that Noord-Brabant as a whole will reach the highest point of ageing by the year 2040. Though, as figure 4.1 shows, the exact moment this will occur in municipalities, strongly differs per region (Provincie Noord-Brabant, 2017c). Figure 4.2 shows that between the years 2015 - 2024, only 8% of the municipalities will experience a decrease in population. Between the years 2025 - 2034 the percentage of municipalities experiencing decrease would already have reached 50%. In the final years, from 2035 - 2049, the decline is predicted to have a more structural character where it is expected to occur in the majority (80%) of municipalities. This is including some of the urban areas (Provincie Noord-Brabant, 2017c). The predicted population numbers in both figures show just an indication, but are in reality hard to predict (Provincie Noord-Brabant, 2017c).
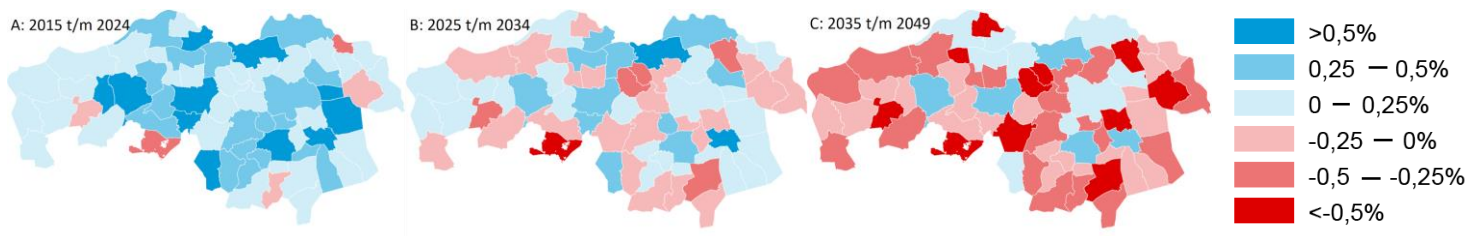
Figure 4.1 - Prognosed distribution of population growth and decline per municipality in Noord-Brabant between the year 2015-2050 (Provincie Noord-Brabant, 2017c).
See Appendix A for a complete overview map of Noord-Brabant including all municipalities
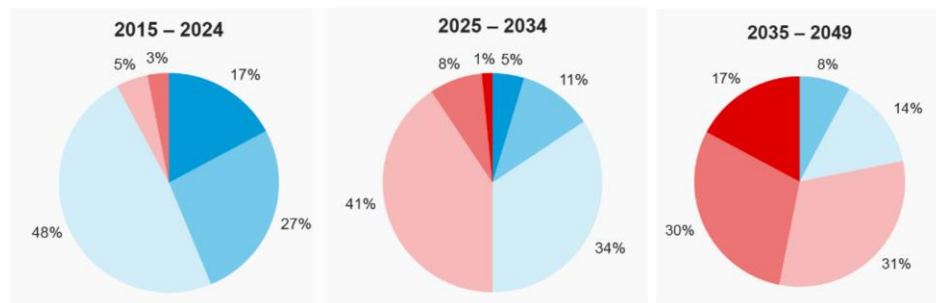
Figure 4.2 - Prognosed percentages of population growth and decline per municipality in Noord-Brabant between the year 2015-2050 (Provincie Noord-Brabant, 2017c).

Consequences of demographic changes in Noord-Brabant

In paragraph 1.3 and subparagraph 2.2.3 and 2.2.4, it was briefly discussed that the aforementioned population decline in combination with ageing, will bring economic and social challenges, especially to the rural outskirts. On the level of Noord-Brabant, these challenges are highlighted in figure 4.3; a shortage of potential labour force; a pressure on the local (public) facilities; pressure on the healthcare sector; an impact on municipal finances and a mismatch in the housing market (BrabantKennis, 2019; Provincie Noord-Brabant, 2019a). As a result, a radical transition process is expected to take place, towards a new economic and social reality, incurred by demographic changes. In the following sections, some of the most important economic and social consequences are further detailed.
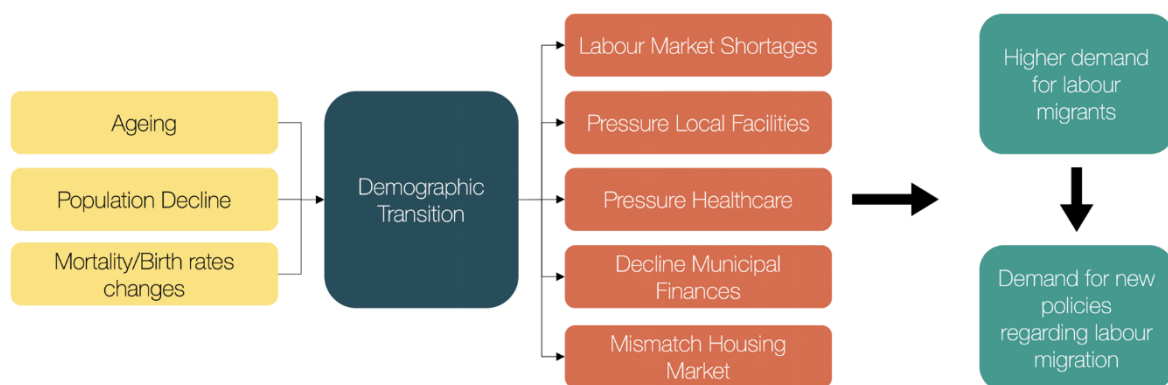
Figure 4.3 - Societal and economical challenges of the prognosed demographic transition.
(Provincie Noord-Brabant, 2019a).

Economic consequences

As mentioned in the previous section, a radical transition towards a new economic reality is expected to happen in Noord-Brabant, as a result of demographic changes. This new reality is predicted to be one with an increasing tension on the labour market, which is further elaborated upon in this section.

According to the CBS/PBL (as cited by Gardeniers, Meuwissen, De Quillettes & Severijns, 2018), the potential labour force in Noord-Brabant is expected to shrink between the years 2017 - 2030 with 18.000 people, and this number would increase to 85.000 by the year 2040. This decrease in potential labour force, and there with the number of jobseekers, is accompanied by an increase of unfilled vacancies (Gardeniers et al., 2018). This increase in unfilled vacancies is a result of the aftermath of the Financial Crisis. After which the economy flourished and the employment in Noord-Brabant increased (Gardeniers et al., 2018). In 2015 the number of jobs grew by 0.2%, in 2016 by 0.9% and in 2017 employment increased with 2.4% (Gardeniers et al., 2018). In 2015, the province had 18.400 vacancies, and in the year 2017 this grew to even 32.000 vacancies (CBS, 2020a). These numbers illustrate the increasingly tight labour market of Noord-Brabant. The percentage of companies that experience difficulties doing business increased considerably from 6% in the year 2016, to 22% in the year 2018 (Gardeniers et al., 2018). In some sectors, labour shortages are even threatening the continuity and growth of businesses. This is happening in for example the technology sector (IT and construction), as well as in the logistics- and healthcare sector (Gardeniers et al., 2018). Furthermore, a mismatch between required education and available qualified employees further aggravate the tension on the job market.

This mismatch between required education and qualified employees, is also influenced by the ongoing brain drain, especially in the rural areas of Noord-Brabant. Once the youth starts studying, they often do not return to their initial home communities, and instead join the work force of the city where they gained their knowledge (BrabantKennis, 2019). Especially those graduating from a University of Applied Sciences tend to stay in the four big cities of Noord-Brabant: Eindhoven, Tilburg, 's Hertogenbosch and Breda. For those who start or graduate from University, one third even moves to other provinces. That means that on the outskirts of Noord-Brabant, highly educated youth emigrates to the cities, or even further to the Randstad region. What remains are the low-skilled workers and the elderly (BrabantKennis, 2019). Figure 4.4 shows the unequal distribution of higher educated youth per municipality.

It is worth mentioning, that some of the aforementioned numbers and consequences are just an indication of the forecasted prognosis. Besides demographic change, the labour market is also influenced by many other factors such as the increasing unpredictability of the (world) economy, technological developments such digitization and automation, ecological developments (energy transition), the mismatch between employee qualifications and employer demands and the rise of the circular economy (Gardeniers, et al., 2018).

Figure 4.4 - The distribution of graduates from University of Applied Sciences [hbo] and University [wo] per municipality in Noord-Brabant (BrabantKennis, 2019).

See appendix A for a complete overview map of Noord-Brabant including all municipalities
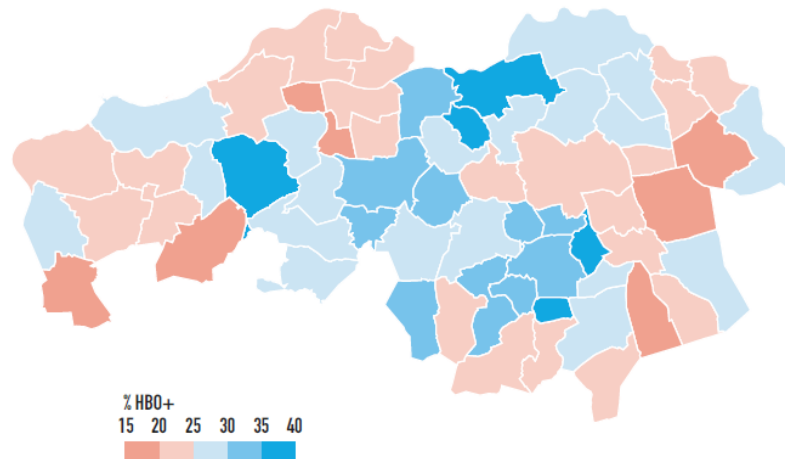
Social consequences

Besides the aforementioned new economic reality, the province of Noord Brabant is also expected to face a new social reality in (mainly) the rural outskirts, which is predicted to be one characterised by a pressure on the local facilities.

This pressure manifests in the shape of a smaller population in rural areas leading to an increase in difficulty with regards to maintaining local facilities, especially when combined with the demands of an ageing population. This decrease, coupled with the changing use of space, other social developments and new forms of economy (digitalizing), could culminate in property abandonment. The following section outlines this property abandonment, which Hospers calls the 'hardware' of decline, as detailed in paragraph 1.4.

In Noord-Brabant, the total size of property vacancy in the year 2016, was about 12,6 million square meters (Provincie Noord-Brabant, 2016). The main contributors to this high square meter of vacancy rate are business- and agricultural buildings, as illustrated in table 4.3. Property abandonment has, besides the economic loss, a high social impact on the neighbourhood, as detailed in subparagraph 2.2.4. Especially vacant stables and sheds are vulnerable for criminal activities and substance abuse. Almost one out of the five farmers in Noord-Brabant has been approached by criminals to rent their empty buildings (Den Engelse & Muntz, 2019). This is aggravated by the expected increase in agricultural property abandonment in the coming years, from 8 - 10% in the year 2012, to 16 - 18% by the year 2030 (Provincie Noord-Brabant, 2016). This increase is the result of scaling, and the high increase of farmers retirements, without adequate replacement.

Besides the effects on the agriculture sector, retail is also experiencing a higher rate of property abandonment. When comparing the first picture of figure 4.5 below, titled 'Indication of property vacancy in retail, business buildings and agricultural buildings in m² in Noord-Brabant', with figure 4.1, titled 'Prognosed distribution of population growth and decline per municipality in Noord-Brabant between the year 2015 - 2050', it can be noticed that both the vacancy rates in retail property and population decline is much higher in outskirts areas. However, this relation cannot explain all percentages in figure 4.5, for example the high number of vacancies in places of businesses within Central-Brabant.

Indication Property Vacancy Province Noord-Brabant

Type of Buildings	Building stock in m²	Indication of property vacancies in the building stock in % and m²	
Retail	8.400.000	12%	1.010.000
Offices	11.600.000	17%	1.970.000
Business Buildings	31.700.000	16%	5.070.000
Education and Healthcare	8.700.000	13%	1.130.000
Other Buildings (Churches, Sport Halls, Community Centres, Holiday Parks, Jails Etc.)	9.600.600	15%	1.460.000
Agricultural Buildings	25.300.000	8%	2.000.000
Total	**95.300.000**	**13%**	**12.640.000**

Table 4.3 - Indication of property vacancies in Noord-Brabant (Provincie Noord-Brabant, 2016).
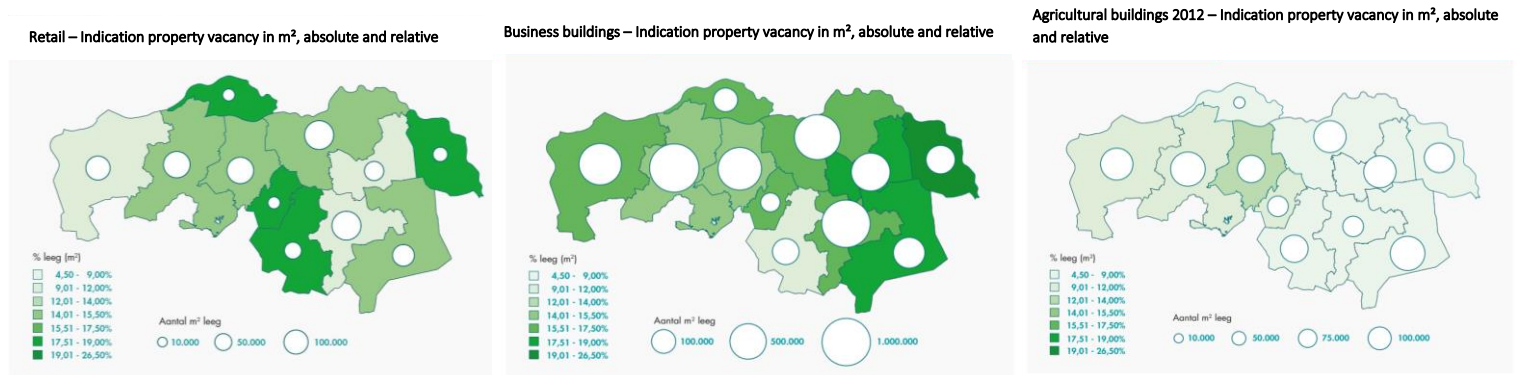
Figure 4.5 - Indication of property vacancy in retail, business buildings and agricultural buildings in m² in Noord-Brabant (Provincie Noord-Brabant, 2016).
See Appendix A for a complete overview map of Noord-Brabant including all municipalities

4.1.3 Labour migration in Noord-Brabant

The transition space of Noord-Brabant can also be incurred by labour migration. In the year 2018, around 92.000[3] labour migrants worked at employers located in the province, which is 14,2% of the total number of labour migrants in the Netherlands (Het PON/Telos, 2020a). For more details about this number, and the registration of labour migrants, please refer to box 4.1.3. To put it in perspective, in the same period around 7.000 expats, or so called high-skilled migrants, were registered (Het PON/Telos, 2020a). The geographical distribution of labour migrants in Noord-Brabant, is illustrated by figure 4.6. This figure shows that in general, the highest number of migrants work in the municipalities with the highest employment rates, representing mostly urban areas. Though, the ratio between the number of migrants compared to the number of inhabitants might possibly be higher in the more rural areas.

Most of the aforementioned labour migrants come from the eleven countries that accessed the European Union in the years 2004 and 2007, respectively 65%, such as Poland, Romania, Hungary, Bulgaria and Lithuania. The Polish with 45% of the total, are by far the biggest labour migrants' group, followed by the Romanians which present 9.6% of the total. Around 13% come from other European countries, for example Germany (Het PON/Telos, 2020a).

The Dutch government published a report in 2013, that divided labour migrants in three categories based on their length of stay. The 'short-stay' category, includes migrants that intend to stay for a maximum of six months. The category 'mid-stay', groups migrants that stay between six months and five years, and the last category are the 'long-term' settlers that stay permanently. Labour migrants are often seen as being part of the first short-stay group, but in reality, only 12,3% of the BRP registered labour migrants in Noord-Brabant fit in this category (Het PON/Telos, 2020a). A quarter (25,1%) has been registered at their residence between six and fifteen years, making them part of the 'long-term' group, that might not even return to their home anymore, due to multiple reasons mentioned in subparagraph 2.3.2 (Het PON/Telos, 2020a). Integration of short-stay migrants might not be considered as relevant by employers and governmental institutions, but when migrants move to categories of mid/long-stay, then who has them in sight and who is responsible for their integration? This is one of the issues raised by the municipality of Halderberge during the 'Regiotafel' in February 2020 in Rucphen.
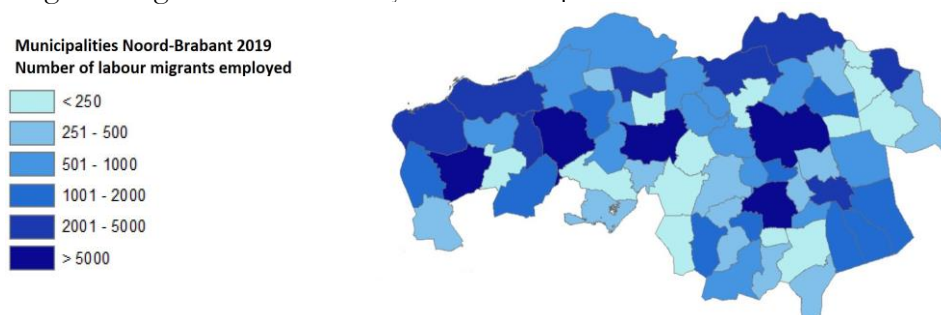
Figure 4.6 - Geographical distribution of the number of labour migrants employed by an employer located in one of the municipalities of Noord-Brabant (Het PON/Telos, 2020a). *See appendix A.*

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[3] *Het PON/Telos provides an overview of the number of labour migrants, as workers who formally receive wages from labour, and who are registered in the Personal Record Database (BRP, Basis Registratie Personen). When a migrant is not registered, and working for a company with more than one location (employment agency for example), it cannot be determined with certainty in which municipality they live or work. These migrants are not included in this analyses of PON. Their number is assumed at a percentage of 16%, so the total number of employed labour migrants is in reality higher.*

> **Box 4.1.3 - BRP Registration of labour migrants**
> *Circa 43,2% (39.712) of the labour migrants that were employed by an employer located in one of the municipalities of Noord-Brabant in 2018, registered in the BRP at a Noord-Brabant municipality. Circa 11% employed by an employer located in Noord-Brabant were registered in another Dutch municipality outside the province. This means that 45% of the labour migrants (42.199) employed by an employer located in Noord-Brabant, did not register in the BRP of a municipality in the Netherlands, but is still registered in a foreign country. It is however assumed that a part of this group still resides in the Netherlands. Migration numbers are therefore often not reliable because they do not include those that are registered as non-residents (RNI, max. of 4 months) or that are not registered at all. According to Van der Haar (personal communication, 12 may 2020) there are diverse reasons for not registering: distrust towards the government; administrative implications; laziness, it is not worth the effort. (Het PON/Telos, 2020a).*

Approach to labour migration

The approach to labour migration in the Province of Noord-Brabant has been described in a two years plan, where the province works as a director and connecter between municipalities and market parties (Provincie Noord-Brabant, 2019b). The first and most urgent theme in this approach is sufficient and safe housing with regard to the surrounding inhabitants. 'As far as the province concerns, labour migrants are preferably housed in urban areas and (residential) centres. Furthermore, rural areas offer other suitable housing possibilities, be it at the labour migrants place of work, such as on farm premises, or to fill the void in certain vacant locations' (Het PON/Telos, 2020c). The second theme is matching policies, visions and rules regarding housing, on different administrative levels (Provincie Noord-Brabant, 2019b). A third theme is inclusion on the labour market, where employers are encouraged to also deploy Dutch personnel. The fourth theme is to strengthen the position of the labour migrant by preventing exploitation with regards to topics such as health care, income, and more (Provincie Noord-Brabant, 2019b).

4.2 The transition space of the municipality of Halderberge

This paragraph is about demographic changes and labour migration in Halderberge, and is divided into three sections. The first section explains the context area of Halderberge. The second section discusses the transition space incurred by demographic changes. The third section discusses the transition space incurred by labour migration.

4.2.1 Research area of Halderberge

Halderberge is a municipality in the region West-Brabant, with approximately 30.300 inhabitants (Gemeente Halderberge, n.d.; CBS, n.d.). The municipality consists of the villages Bosschenhoofd, Oudenbosch, Hoeven, Oud Gastel and Stampersgat. These five villages are shown in table 4.4, including population numbers, surface area and population per square kilometres. Looking at the number of inhabitants and surface area per region, there are substantial regional differences, whereby Oudenbosch has by far the biggest population and the highest population density. Appendix B shows a map of West-Brabant and the municipality Halderberge.

   The industry (maintenance), trade (logistics) and healthcare are the largest employers in Halderberge (Wise up Consultancy, 2019). Another large employer, is the hospitality and leisure sector that is overrepresented, mainly providing seasonal work (Hagenaars, 2020). This recreational sector is mainly clustered between Bosschenhoofd and Hoeven, with Bosbad Hoeven; Villapark Panjevaart and De Haspel, where yearly 500.000 overnight stays take place for recreational purposes (Gemeente Halderberge, 2019). However, some of these recreational parks, do not focus on tourists only, if not at all, but on the business market with housing for mainly labour migrants (Gemeente Halderberge, 2019). In subparagraph 4.2.3 this is discussed further.

	Bosschenhoofd	Hoeven	Oud Gastel	Oudenbosch	Stampersgat
Population (2020)	2447 1234 Male 1213 Female	6771 3361 Male 3410 Female	7245 3624 Male 3621 Female	12641 6246 Male 6395 Female	1190 601 Male 589 Female
Surface area in km²	5,12 km²	24,82 km²	18,1 km²	22,43 km²	4,77 km²
Population per km²	478	273	400	563	249

Table 4.4 - Population of Halderberge per 01-01-2020 (Gemeente Halderberge, n.d.).

4.2.2 Demographic changes in Halderberge

As located in the rural outskirts of Noord-Brabant, the population of Halderberge is expected to decline earlier than non-rural areas, which is illustrated by the percentages in table 4.5. The table shows that in the year 2017, the percentage of people aged above 65+ was 22%, whereas in the year 2040 this will be 31%. This suggests that in 2040, almost one third of the population is above the age of retirement. Even though the table shows that the natural growth is expected to stay stable in Halderberge on an average of 14.4%, table 4.6 shows that the total population will still decline despite the higher life expectancy. This is a result of the large baby boom generation (born between the years 1945 and 1955), that is expected to reach the age of eighty or higher coming two decades, resulting in increased mortality-rates. Natural decrease will therefore be dominant over natural growth.

Population in Halderberge by age in percentages %

	2017	2025	2030	2035	2040
0 - 14 year	14.7	14.1	14.3	14.3	14.7
15 - 29 year	15.4	14.7	14.1	13.7	13.7
30 - 54 year	32.3	29.2	28.5	29.1	29.2
55 - 64 year	15.2	16.0	14.8	12.4	11.0
65 - 74 year	13.5	13.6	14.4	15.0	14.0
75 years >	8.9	12.4	14.0	15.6	17.4

Table 4.5 - Age structure of Halderberge (Provincie Noord-Brabant, 2017c).

	Children born alive	Deceased	Immigration	Emigration	Population at the end of the period
Periods	X 1000	X 1000	X 1000	X 1000	X 1000
2020 - 2025	1,4	1,6	1	1,1	30,3
2025 - 2030	1,5	1,7	1	1,2	30,1
2030 - 2035	1,5	1,8	1	1,2	30
2035 - 2040	1,4	2	1	1,1	29,8
2040 - 2045	1,4	2	1	1,1	29,6
2045 - 2050	1,4	2,1	1	1,1	29,5

Table 4.6 - Regional forecast of population development in Halderberge between the year 2020-2050 (CBS, 2020b).

Economic consequences in Halderberge

The aforementioned demographic decline in Halderberge, is expected to impact the labour market in and around the municipality. This impact mainly results in an increasing demand for labour, while unemployment is decreasing. In the years 2018 - 2019, employment already grew by 3,6%, which is around 430 jobs, to a total of approximately 12.500 jobs (BrabantAtlas, n.d.). This trend makes it increasingly difficult for employers to find the right people (Wise up Consultancy, 2019). This is aggravated by the limited supply of labour migrants, due to shortages in adequate (temporary) housing, and the competition on the European labour market for these workers.

The increasing demand for labour in this region, mainly comes from the logistics, agriculture and health sectors. In the first two sectors, the need for low-skilled workers is high. However, in the near future, this might be resolved through automation and digitisation. At this stage though, technology is not yet efficient enough, nor are the financial investments secure enough. The last sector mentioned, health care, conversely deals with increasing demand for high-skilled labour, in particular trained nurses and care providers. In comparison to the other two sectors, automation and digitisation cannot solve these shortages (Wise up Consultancy, 2019).

Social consequences in Halderberge
Demographic changes are also expected to impact the vitality of Halderberge, mainly due to the expected decline in (public) social facilities, including property abandonment across the municipality. This property abandonment is already becoming visible. The total size of property vacancy in the municipality in the year 2019 was about 42 hectares (Provincie Noord-Brabant, 2019c). This is illustrated by table 4.7. The following sections outline this property abandonment, by examining its implications both on the level of the centre areas of the villages, as well as the outskirts.

Villages' centres are expected to face an increase in property abandonment, especially in retail outlets and public real estate. Retail outlets are properties that host activities focusing on the consumer market such as shops, the hospitality sector and estate agents. Public real estate property are buildings or areas that fulfil a public function such as education, sport or healthcare. The impact of these kind of property vacancies on the living environment is high, due to the social role they fulfil in society. Figure 4.7 gives an indication of the percentage of abandoned retail outlets and public real estates in Halderberge, compared to surrounding municipalities. On a regional level, Oudenbosch is the most affected area, as it accounts for more than 60% of retail vacancies, which accounts for 50% of the square meters in terms of shopping floor area (Provincie Noord-Brabant Regio West Brabant, 2019).

Besides the effects of property vacancies in villages' centres, the countryside experiences abandonment of buildings as well. The prognosis in table 4.7 shows that between the years 2000-2030, a total of 42 agricultural hectares will become vacant, which equates to 40% of the total of agricultural land in Halderberge (Provincie Noord-Brabant, 2019c). As detailed in subparagraph 2.2.4 and 4.1.2, these vacant stables and sheds are vulnerable for criminal activities, especially those which lack security. Therefore, the municipality started the project 'Vital Rural Area Halderberge' [Vital Buitengebied]. This project aims to strengthen the economic and recreational potential of the rural area, by following three pillars: 1. Vital holiday parks, 2. Future-proof use of agricultural real estate, and 3. Humane residence for labour migrants (Gemeente Halderberge, 2019, p. 2). In the next section, the pillars in the context of labour migration are further discussed.

	Total number of properties	Number of vacancies in properties	% of vacancies	Total surface m^2	Total surface of vacancies in m^2	% surface vacancies
Retail	150	30	21%	46.610	3.610	8%
Offices	140	20	15%	41.620	3.380	8%
Industry	490	30	7%	633.530	18.540	3%
Public real estate	380	10	6%	133.510	2.320	2%
	Number of locations that stopped between 2000-2012 and total area (ha) of agricultural buildings that became vacant		**Prognoses of number of locations that stop between 2012- 2030 and of total area (ha) agricultural buildings becoming vacant**		**Vacant and remaining area agricultural buildings 2000-2030**	
Agricultural	98	5,13	91	13,51	Total municipality of Halderberge: 41.53 ha	

Table 4.7 - Indication of property vacancies in Halderberge per 1-1-2019
(Provincie Noord-Brabant, 2019c).

Property vacancy in retail outlets in %   **Property vacancy in public real estate in %**
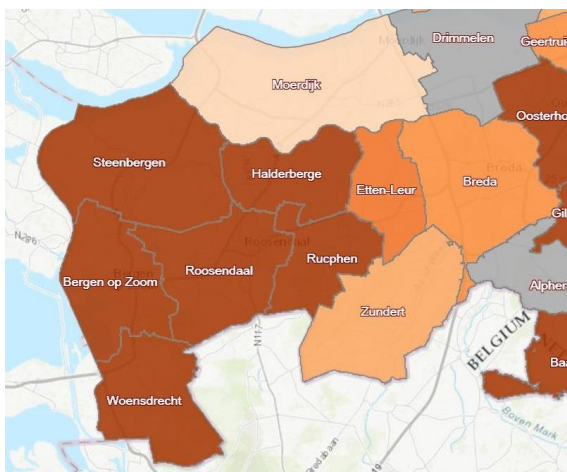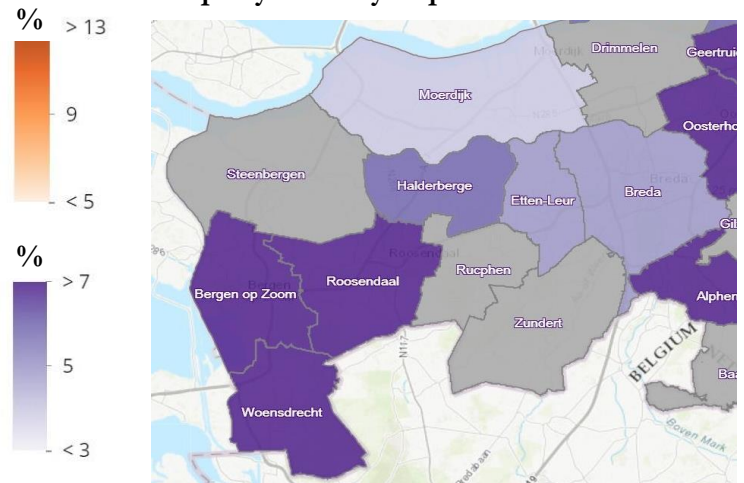
Figure 4.7 – Indication of property vacancy percentages in retail outlets and in public real estate per municipality in West-Brabant in 2019 (Provincie Noord-Brabant, 2019c).

4.2.3 Labour migration in Halderberge

This subparagraph discusses how the transition space of Halderberge is incurred by labour migration. Around six hundred labour migrants are officially registered in the BRP of the municipality, see table 4.8. This registration though, is only mandatory for those that intend to stay longer than four months (see box 4.3.1 for more details about BRP registration). The number of labour migrants registered as being employed by an employer located in Halderberge, is therefore more reliable, which is around one-thousand migrants (Het PON/Telos, 2020c). Though, many labour migrants work via an employment agency (about 55%). These agencies are not always located in Halderberge itself, and therefore it can be assumed that even these aforementioned numbers are slightly higher (Het PON/Telos, 2020c).

Number of labour migrants employed by an in Halderberge located employer:	Number compared to Noord Brabant:	Number of registered labour migrants in the BRP of Halderberge is*	Number of registered labour migrants in the BRP of Halderberge is
981	1%	585	1%
Demographics		Number of years registered in Halderberge*	
< 19 year	4,4%	0 - 6 mth	11,3%
19 - 24 year	12,8%	6 mth - 3 years	37,9%
25 - 29 year	21,2%	3 - 6 years	23,9%
30 - 34 year	12,4%	6 - 15 years	26,8%
> 35	44,1 %	* This data comes from the BRP	
Top 5 Nationalities of the total number of labour migrants		Top 5 Nationalities Central and Eastern European countries (EU-11)	
1. Polish	535 | 54,9%	1. Polish	539
2. Romanian	85 | 8,7%	2. Romanian	85
3. Hungarian	37 | 3,8%	3. Hungarian	37
4. Belgian	23 | 2,3%	4. Latvian	20
5. Lithuanian/ German/ British	20 | 2,0%	5. Bulgarian	13
Top 5 CAO where most labour migrants, working at a in Halderberge located employer, are affiliated with		Top 5 sectors where most labour migrants, working at a in Halderberge located employer, are affiliated with	
1. Agency Workers	404 | 41,2%	1. Job placement services and job agencies	539 | 54,9%
2. No CAO	141 | 14.4%	2. Agriculture	173 | 17,6%
3. NBBU-agency workers	127 | 12,9%	3. Wholesale trade and commission trade (except for motor vehicles and motorcycles)	68 | 6,9%
4. Open cultivation	101 | 10,3%	4. Repair of computers and consumer goods	26 | 2,7%
5. Horticulture	72 | 7.3%	5. Mail and couriers	19 | 1,9%

Table 4.8 - Migration numbers in Halderberge (Het PON/Telos, 2020b).

As detailed in table 4.8, most labour migrants in Halderberge work in the agriculture, horticulture, logistics and distribution sectors. Housing takes place in the residential areas via room rent in regular housing, or in (large-scale) accommodations such as De Olmen (CoMensha, 2019; Het PON/Telos, 2020c). De Olmen, located just outside the centre of Hoeven, is an accommodation specifically meant for labour migrants, and can accommodate up to 220 individuals. There is much resistance towards these kinds of accommodations. Even though this form of housing causes the least forms of nuisance due to the permanent presence of a supervisor (24/7), night registration and house rules.

Besides the two aforementioned housing options, labour migrants also often use recreational parks as a form of accommodation. Despite, the initial temporary nature of these locations, they often become permanent residential options, due to the lack of alternatives. For example, in Villapark Panjevaart, all 176 holiday houses are inhabited by Poles, Romanians and Bulgarians according to BN DeStem (Van den Broek, 2020). Local politicians did a tour around the Villapark beginning of the year 2020. One of them mentioned afterwards: 'The housing location itself is acceptable, but if you count: in all 176 houses there are 4 Eastern-Europeans living, which is in total 700. In addition, the neighbouring De Olmen houses 300 labour migrants,

and 200 of them are spread over houses in the village itself. That means that one out of six inhabitants of Hoeven is a labour migrant' (as cited by Van den Broek, 2020). Due to this high number, the municipality aims to restore the recreational function of these parks and therewith, stop the friction caused by using such locations for housing both tourists and 'permanent' users. The municipality therefore developed the pilar 'Vital holiday park', as mentioned in previous subparagraph 4.2.2. In the next section, the approach to labour migration by the municipality is further elaborated upon.

Approach to labour migration

As mentioned in the previous section, the shortage of adequate housing is one of the most important issues with regards to labour migration in Halderberge, especially since the demand for labour migrants is increasing. As briefly touched upon earlier, one of the pillars of the project 'Vital Rural Area Halderberge' is dedicated to housing of labour migrants (Gemeente Halderberge, 2019). It aims to establish adequate and humane housing (for labour migrants) in the right locations, which means among other things, an even distribution. The limited availability of appropriate accommodation increases the potential of illegal housing, which in turn affects the living environment negatively. It is necessary to facilitate new developments with the focus on safety, liveability and manageability of the accommodation as well as its surrounding environment (Gemeente Halderberge, 2019).

Another objective is adequate registration of labour migrants, as the current system of registration via BRP or tourism tax, is no longer sufficient. Another point of contention is the lack of incentive for deregistering labour migrants once they have left (Wise up Consultancy, 2019). A good registration means improved control on housing.

The last objective of the policy framework is participation and clear accessibility for labour migrants to the social domain such as healthcare, education etcetera.

5. Analysis

This chapter presents the analysis and answers the sub-questions 3 and 4 as formulated in paragraph 1.2: 'What is the local population's attitude towards the presence of European labour migrants in the community and how do factors such as contact frequency, perception, consensus, integration and housing influence the local population's attitude?' and 'How does the local population feel about the demographic changes and do they see a future role for labour migrants in shaping these transition spaces?' Before answering these questions by means of the survey results, first the data exploration is described in the first paragraph, and then details about the participants of the survey are detailed in the second paragraph. The third and fourth paragraph answer both research questions, starting with a descriptive analysis for each question, followed by an explanatory analysis of the respective hypotheses.

5.1 Data exploration

This paragraph describes the first step of the data analysis, which is data exploration. Data exploration includes the processes of handling missing data, as well as data enrichment.

5.1.1 Missing data

The first step in the analysis was to check for missing data, to find out what percentage of values are missing for each variable. Then to consider if this occurs randomly or whether a systematic pattern can be found (Pallant, 2016). Respondents were required to answer each question. However, for the nine slider questions, there was an option to choose a separate response category 'I don't know / no opinion'. There is a difference in meaning between individuals that choose this answer, or those that chose option '4 = neutral'. They could either not have enough information to answer the question, no idea or opinion, do not understand the question or feeling a discomfort towards how their answers might be viewed. There are a host of other factors, that would justify why an individual chose to omit a question. Thus, a decision was made to assign such responses a value of '99 = missing data', to prevent any distortions in the statistical analysis.

The missing values for these slider questions, were estimated with the Missing Values Analysis in IBM SPSS (Pallant, 2016; IBM, n.d.). The descriptive univariate statistics of the missing data can be found in Appendix F. As displayed in said table, in total 2563 (sum of missing count) answers were missing, which is an average of 11,8% (mean percentage missing) per ordinal slider question. This percentage is relatively high, and can influence the outcome results. Different patterns can be identified in the missing data. In question 2 with 9 statements about perceptions, an average of 21% of the answers per statement were missing. Especially the statements such as, whether labour migrants are 'hard working', 'exploited', 'comply to Dutch laws and regulations' or like to 'learn Dutch' contain the highest levels of missing data. Remarkable is also the 21,3% missing values in question 5: 'There are too many labour migrants coming to Halderberge'.

The following quotes, derived from the qualitative data, illustrate these high percentages of missing data:

'Quite a few questions are asked that presuppose factual knowledge. For example, "too many labour migrants come to Halderberge". How many are there, then? No idea. Or "Labour migrants comply to Dutch laws and regulations". That is something I cannot realistically know. So, I have often filled in the option "I do not know"'. - Female, 40-64, Oudenbosch

'About the questions that migrant workers often work in low-skilled jobs, comply with the law and, above all, have other migrant workers as friends and acquaintances. These seem to me verifiable by facts and have nothing to do with people's opinions.' - Male, < 24, Oud Gastel

Also remarkable were the 30,9% missing answers for statement 3 of question 8 'The integration of labour migrants in Halderberge raises concerns'. Perhaps because the first question of this section mentions that this is about 'temporary' labour migrants (this word was added upon the request of the municipality). This can be confusing and makes the necessity of integration more debatable than when labour migrants stay long term in Halderberge. The following quotes, derived from the qualitative data, support this:

'If labour migrants stay here temporary, why do they need to integrate?'
- Female, 25–39, Hoeven

'I found some of the question's wording somewhat vague (especially questions including terms such as "temporary" etc.). Otherwise, a very interesting topic!'
- Male, 40-64, Oudenbosch

'There is a big difference between temporary or permanent labour migrants, which was not always clear from the given question'
- Female, 25-39, Oudenbosch

Furthermore, it can also be identified in the Data Patterns (all cases) and Missing Patterns (cases with missing values) tables in SPSS, that some respondents filled the option 'I don't know / no opinion' (99 = missing data) way more often than others. The most extreme case is of a respondent

that even filled in respectively 84% the 'I don't know / no opinion' option in slider questions. This outlier is distinguished by the lack of answers, but since missing answers are not included in the analysis, I decided to maintain this respondent in the survey.

Regarding question 7, only the respondents that filled in 'slightly agree', 'agree' and 'strongly agree' in question 6 regarding the worries participants have towards the arrival of migrants, had the option to respond to question 7. Therefore, only 349 people filled it in, and the rest of the information is missing. For question 24, 'the highest completed education level', 16 answers were missing and were converted to the response code 'other, namely'. According to Citisens, these 16 respondents previously indicated at the Digipanel that they prefer not to state their level of education. Therefore, these answers were filtered out.

5.1.2 Data enrichment

Data enrichment or data transformation is the process of enhancing existing information, by supplementing incomplete or missing data. 'Before you can perform statistical analysis on your data set, you need to calculate total scale scores for any scales used in your study' (Pallant, 2016, p. 86). This can be done in two steps whereby the first step is to 'reverse any negatively worded items' and the second step is to 'add together scores from all the items that make up the subscale or scale' (Pallant, 2016, p. 87). Instead of using external data sources, which is typical in data enrichment, new columns were added to the data (Allen & Cervo, 2015). Information for these new columns were taken from existing columns, but enriched with formulas. The formulas, if necessary, reversed the negatively worded items in the scale. And calculated the type of contact, positivity/negativity score, suitability/unsuitability score or concern/not concern score per scale and summed the total of scales per question. Missing data was not calculated in the overall scale scores (with the rule: only numbers <99). All new variables created were recorded in the codebook, see Appendix D for more details. In the following subparagraph, the enriched data for each question is explained.

Section A - Experiences and contact frequency

Section A, question 1, includes statements that revolve around the nature of contact and frequency of said contact between inhabitants and labour migrants. Their responses were divided in an impersonal score (labour migrants living in their neighbourhood, buildings for labour migrants nearby and informed about them via media) and a personal score (labour migrants as colleagues, friends or making use of their services). Besides personal and impersonal contact, there can also be no contact at all. They do not interact with the labour migrants in any shape or form.

To give an overall idea of the kind of contact, table E.1 in Appendix E shows how this data was enriched by codifying the aforementioned statements, where on each statement, if the respondent answers yes, their answer is codified by a value of 1 (a value of 0 is given otherwise). The statements for each respondent, grouped by their category (personal or impersonal) are then aggregated and averaged. The outcome of this formula is between 0 and 1, where the closer to 0 a respondent's score was on a given category, the less contact they have for said category (be it personal or impersonal). For example, someone who has no labour migrants as friends and colleagues, and has never employed labour migrants, would get an aggregate score of 0 on the personal contact score, as they answered all three statements with no.

Statements q1_4 Frequent contact (yes) / lack of frequent contact (no, n/a) and q1_6 desire of contact (yes) / no desire for contact (no, n/a) has not been calculated in this score since it does not give an insight into the nature of contact.

Section B - Perceptions

Section B, question 2, includes statements that revolve around the perceptions of the local inhabitants. To give an overall idea of the perceptions, table E.2 in Appendix E shows the measures that were calculated using statements one to nine, and shows how these statements were divided. The outcome of this formula is a number on the spectrum between -1 and 1. To capture the inverse relationship between options {1,2,3} and {5,6,7} of the seven-point Likert scale, similar score was assigned to the statements but with the inverse of the sentiment. If response '1' (totally disagree for example) was very negative, the result was assigned with -1, making response '7' (totally agree) valued as 1, to capture neutral answers, individual who chose the response '4' (neutral) were assigned the score of 0. As mentioned earlier, for the intermediate values (2,3) and (5,6) details on their calculation, were discussed in great details in Appendix E.

Section C - Consensus

To give an overall idea of the consensus of respondents towards labour migrants, table E.3 in Appendix E shows the measures that were calculated using question 3, 4, 5 and 6, and how the statements were divided. The formula as mentioned in table E.2 calculates again answers into a spectrum between -1 and 1. For each question the sentiment of options 1,2,3 was set as -1 if they are negative and 5,6,7 as 1 if they are positive, this varies based on the question, as detailed in the section above. The result is an overall positivity score ranging from -1 negative to 1 positive.

For question 7, 'what are you worried about when it comes to labour migrants', there was a possibility to choose the open-ended option, where respondents could speak freely and fill in an open-ended answer. After scanning through the open answers to look for common themes, I observed a lot of respondents had listed worries that were already available as part of the options provided. I compared the data for each of these responses with those listed in the codebook and converted some of the open answers into the provided numerical code. I then entered the appropriate number into the data set under the variable 'worries' (Pallant, 2016). Furthermore, I also discovered some common themes in the open answers that were not listed in the provided list of worries. Four numerical codes were therefore appended: 'work threats', 'personal threat', 'substance abuse' and 'bad driving behaviour'.

'Work threats' includes taking employment opportunities from the locals, making it difficult for the youth to find a job, pressuring the wages of low skilled labour. 'Substance threat' includes alcohol and drug abuse. 'Personal threat' included all threats towards personal feelings or an individual's safety. The last added category 'driving behaviour' included all open answers regarding various kinds of bad driving behaviour and parking issues.

For respondents that did not choose the open-ended checkbox (something else, namely: = 9), a '0' was put at the added categories. However, perhaps if they had seen these four 'extra' options, they might have chosen them as well. Therefore, it is recommended in any future survey to include these new categories beforehand.

Section D - Integration

For question 8 of section D Integration the overall positivity score has only been calculated for the last statement 'The integration of labour migrants in Halderberge raises concerns', with the formula as explained in table E.2 in Appendix E. To give an overall idea of the respondent's opinion towards integration, table E.4 in Appendix E shows the measures that were calculated. The sentiment of options 1 were set as 1 since it is positive and 7 as -1 since it is negative, and 4 is 0 as It is neutral.

For question 9, after reviewing the data I realised this question should have been a checklist, where respondents have multiple options, instead of allowing only one option to be selected. Although the question was formulated with who is 'most' responsible for integration, 31 respondents marked category seven 'other, namely' and filled in multiple answers, if not all mentioned categories, in the open text box. Although 31 respondents are only about 4% of the total amount of participants and therefore does not hold a lot of statistical validity. It is still 31 respondents and it makes it easier to filter the different answers given. Therefore, I decided to enrich the data by checking the answer of each respondent and comparing it to the listed categories in the codebook in order to enter the appropriate number (or multiple numbers) into the data set of each answer given (Pallant, 2016). Since some of the respondents gave multiple answers, the original column was pivoted into six columns. In SPSS this means that category q9_responsible_integration has a value 1 till 8, but the pivoted columns have values 0 = *No; 1 = Yes*. The following quote, derived from the qualitative data, verifies the need for this enrichment:

'It is a pity that there is only one answer possibility here, the migrant, employer, housing provider, social institutions [are all responsible]'.
- Female, 65 – 79, Hoeven

Section E - Housing

Section E revolves around housing in Halderberge. Question 10 is about the overall suitability of different types of housing for labour migrants. The measures were calculated again according to the formula in table E.2 into an overall positivity score. However, in this question the results cannot be placed on the spectrum ranging from negative to positive but ranging from the two categories: unsuitable to suitable. To give an overall idea of the respondent's opinion towards suitability of different housing options, table E.5 in Appendix E shows the measures that were calculated. For each question the sentiment of options 1 was set as -1 if unsuitable and 1 if they are suitable, conversely for option 7, while as stated above option 4 is always assigned 0 as it is neural.

For question 13 this enrichment was repeated, with the difference that this was a ranking question instead of a slider, where the numerical values 1 and 2 were most suitable, compared to the numerical values 3 and 4 meaning least suitable.

Section F - Population Decline

To give an overall idea of the concerns respondents have towards demographic changes, and if respondents ascribe a role to migrants in the future, table E.6 in Appendix E shows the measures that were calculated using the 3 statements of question 16 and 4 statements of question 17. The table also shows how the statements are divided.

Section G - Closing questions

For question 24, 'the highest completed education level', it was noticed that two respondents listed in the open-ended text field an answer that was available within the provided list of options, and therefore a number / numerical code was assigned to each. In question 25, employment situation, respondents also listed in the open-ended text field an answer that belongs to one of the other major groups of responses and therefore a number / numerical code was assigned to each.

In the next paragraph the demographic data of the participants are discussed.

5.2 Participants

This paragraph describes the demographic data (5.2.1), which describes the respondents that participated in this research, and the second paragraph describes the sampling error (5.2.2).

5.2.1 Demographic data

In total, 677 respondents answered the survey, see figure 5.1. Most of them are living in Hoeven and Oudenbosch, a smaller amount in Oud Gastel, and a relatively small percentage lives in Bosschenhoofd and Stampersgat. The number of men and women are equally distributed and none of the respondents filled in the gender-neutral option. The age category of people aged between 40 – 64 is by far the largest number of respondents. Followed by the categories 25 – 39 and 65 – 79. The youngest < 24 and oldest > 80 age group are relatively small. When it comes to education level, most respondents, almost half of the total, studied at a University of Applied Sciences. This is followed by the Secondary Vocational, with one third of the total, and Secondary Education, with 13% of the total. Only 5% studied at the University, and only 1% of the respondents have indicated they had only completed Primary Education. The last category of the demographic data is the employment situation. Most respondents, half of the total, indicated being an employee. Almost 20% of the respondents are retired, which complies with the data of the age groups. Respectively 8% of the respondents' occupation is entrepreneur, another 8% is freelancer and another 8% is housewife/houseman. A smaller amount of the respondents is either incapacitated, student or unemployed. For more information about the categories and translations into Dutch, please refer to the codebook in Appendix D.
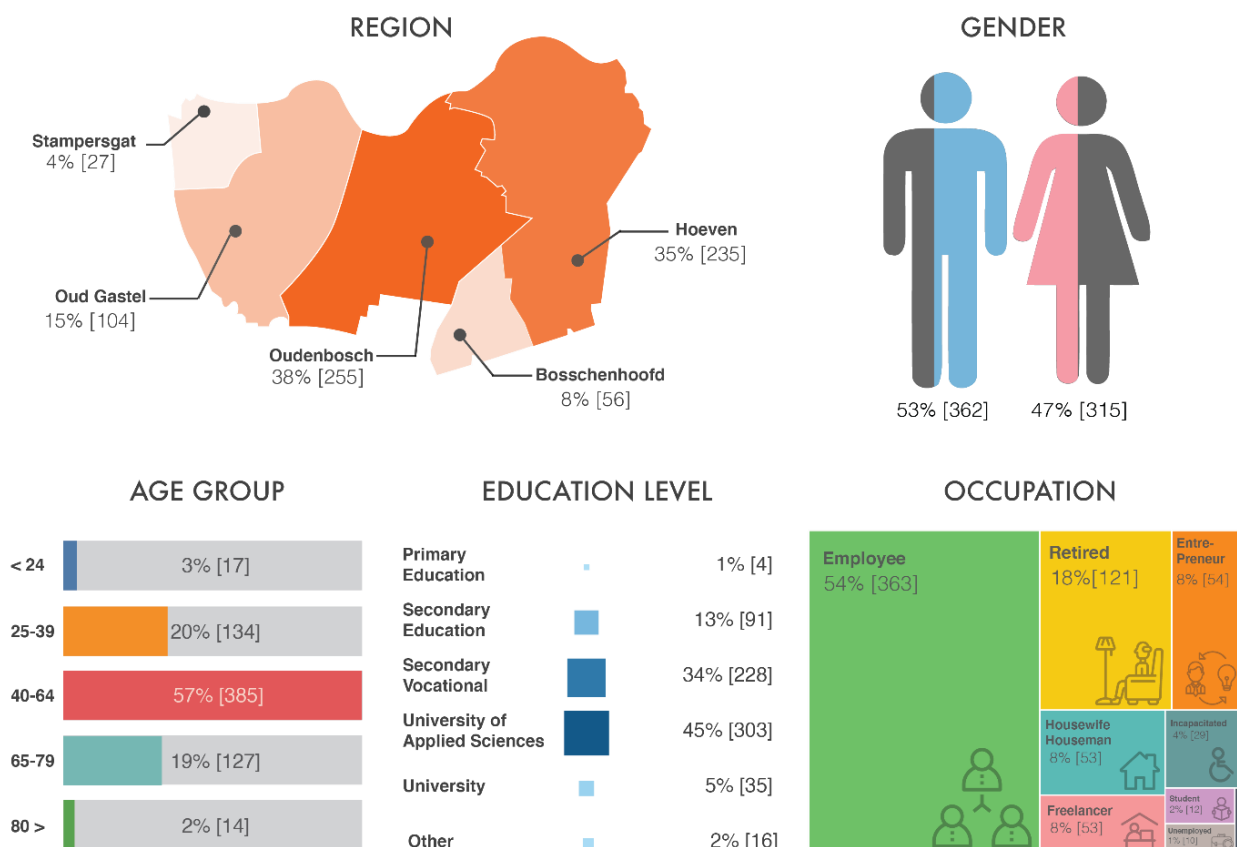
Figure 5.1 - Demographic data of the survey participants; residence; gender; age group; education level; occupation.

5.2.2 Sampling error

This study uses a sample of the total population of Halderberge, as detailed in subparagraph 3.4.3. To minimize sampling error, data was collected through different platforms, the Digipanel; social media; de Halderbergse Bode; websites; a phone number that was open for those without access to internet. To state if the final sample is representative for the whole population of Halderberge, the margin of error was calculated. This percentage tells if the amount of people that filled in the questionnaire is enough to represent the views from the overall population. The smaller the margin of error, the more accurate the collected data is and vice versa (SurveyMonkey, n.d.). The total population of Halderberge is Circa 30.000 and the number of respondents that filled in the survey was 677. With a desired confidence level of 95%, the calculator of SurveyMonkey (n.d.) gave a margin of error of 4% for this sample size. This means that if 30% of the respondents answered 'disagree', it is assumed with 95% likelihood that 26% to 34% of the total population will give the same opinion.

When looking at the margin of error for each village separately, Oudenbosch is 6%, Oud Gastel is 10%, Hoeven 6%, Bosschenhoofd is 13% and Stampersgat is 19%. For most social science studies, a margin of error of 3 - 5%, sometimes even 10% is fine, when you want to deduce trends or infer results in an exploratory manner. This means only the last two smallest villages Bosschenhoofd and Stampersgat are underrepresented, and conclusions cannot be drawn from their results.

Besides the margin of error, there are more reasons to believe the sample size represents the actual population well. In Halderberge 49,8% of the population is men, whereas in this survey 53% of the respondents is men. When it comes to age, the age group 25 - 39 is 20% of the sample and forms 19% of the actual population, and the age group 65 - 79 is 19% of the sample and forms 22% of the actual population. These two categories therefore show an adequate representation. The group of 40 - 64 is slightly over-represented, with 57% of the sample compared to 43% of the actual population (Citisens, 2020b). While, the group of < 24 is only 2% of the sample compared to 9% of the actual population. Similarly, for 80 >, they are only 2% of the sample, while they form 7% of the actual population. Making both categories slightly under-represented (Citisens, 2020b).

5.3 Perspectives on the presence of labour migrants

This paragraph answers sub-question 3 as mentioned in paragraph 1.2: 'What is the local population's attitude towards the presence of European labour migrants in the community and how do factors such as contact frequency, perception, consensus, integration and housing influence the local population's attitude?' The paragraph is divided into a descriptive and an explanatory analysis of all data relevant to answering this question. The descriptive analysis consists of examining the answers on a question per question basis. In the explanatory analysis, a number of assumptions, hypotheses, are tested. Please refer to subparagraph 2.4.2 for an overview of all hypotheses. An overview of all responses per question, can be found in Appendix F.

5.3.1 Descriptive analysis

Section A - Experiences and contact frequency

In question 1 of the survey, respondents were asked about their nature of contact with labour migrants. Subparagraph 5.1.2 section A and table E.1 in Appendix E, show how this data was enriched and calculated into a personal and impersonal contact score. Figure 5.2 below shows the scores of both kinds of contact, graphed in a boxplot made through the library matplotlib. A boxplot output is a box representing the middle 50% of scores for all cases. The distance between the box top and the top of the whisker represents the highest 25% of the values, and the distance between the box bottom and the bottom of the whisker represent the lowest 25% of the values (Pallant, 2016; Field, 2018).

The red boxplot at the left of figure 5.2 shows the impersonal contact score, where 1 means a lot of impersonal contact and the closer to 0 means no impersonal contact. As the boxplot shows, respondents have a high score on impersonal contact. A majority of the inhabitants indicated that labour migrants live in their neighbourhood (74%), there are buildings in their neighbourhood where several labour migrants live together (67%) or that they regularly read or hear reports in the media about labour migrants (80%), for percentages see Appendix F. However, the box plot is comparatively tall, suggesting a variance in answers (Field, 2018). As illustrated by the box, the length of the box spans from 0.3 (lower quartile) to 1.0 (upper quartile) and the whisker (line protruding from the box) covers the entire data without outliers (Field, 2018; Pallant, 2016).

The blue boxplot at the right of figure 5.2 shows the personal contact score, where 1 means a lot of personal contact and the closer to 0 the value is the less personal contact. As the boxplot shows, the personal contact with labour migrants is very low, even close to zero. Only a small number of the inhabitants indicated to have labour migrants as colleague's (12%), have them as friends or acquaintances (11%) or that they regularly make use of their services (12%). Looking at the personal score, if the outliers are excluded, almost all respondents fall within a range between 0.0 - 0.3, and the whisker only extent to 0.7, which means almost none of the respondents have a high personal score (Field, 2018). Only 11 respondents answered with 'yes' to all 3 statements related to personal contact such as having labour migrants as friends, colleagues and used their services. Those are the outliers, represented by the circles at 1.0 (Pallant, 2016).
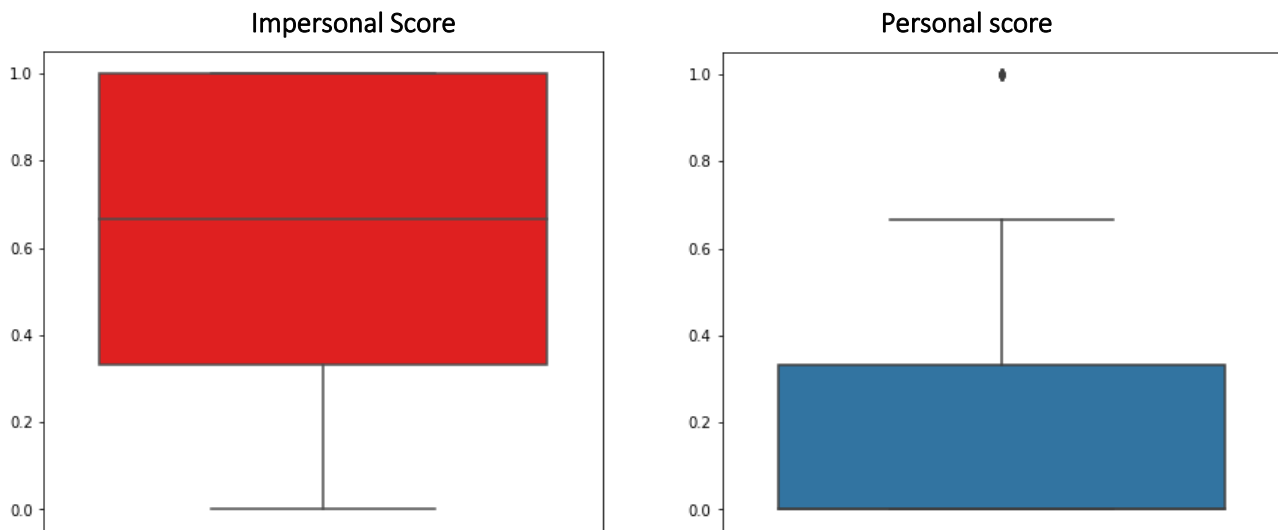
Figure 5.2 - Boxplot: Nature of contact between the participants and the labour migrants.

Section B - Perceptions

For the perceptions, the positivity score is graphed in a boxplot through matplotlib, see figure 5.3. Each box shows the positivity score on the statement following the sentence 'Labour migrants who live in Halderberge…'. The red line represented by (-.-) is the median. The black line denoted with (---) is the mean of the positivity score values. The circles in each boxplot represent the outliers. The missing values (99 = 'I don't know / no opinion') are not taken into account in this boxplot, but they were taking into account in the percentages, see Appendix F for more details.

Looking at this chart, it shows respondents are positive about the statements that labour migrants who live in Halderberge are 'hard workers' (40% agree, 10% disagree), they 'help certain sectors to stay viable' (62% agree, 14% disagree) and that 'migrant workers are exploited by their employees' (47% agree, 15% disagree). For the 'hard workers' though, most answers are within a smaller range meaning the answers vary less, compared to the scores on 'sectors stay viable' and 'exploited' categories, where 75% is above zero, but 25% is below zero. For these two, the whiskers are also not the same length, meaning the respondents show signs of skewness because the lower whiskers are longer than the upper one (Field, 2018).

Respondents are negative about the statements that labour migrants do mostly 'low skilled work' (70% agree, 6% disagree) and 'mainly have other migrants as friends or acquaintances' (79% agree, 3% disagree). Respondents overall are also negative about the statements that labour migrants 'comply to Dutch laws and regulations' (47% disagree, 12% agree), 'want to learn Dutch' (53% disagree, 6% agree) and 'adapt to the Dutch culture' (63% disagree, 7% agree). Most boxes on the negative score (between 0 and -1) are also comparatively short, suggesting that overall respondents have a high agreement on those statements, except for the 'comply to Dutch laws and regulations'. For the statement 'Displace workers', the lower quartile is at -0.33 and the upper quartile is at +0.33, with a symmetrical distribution meaning a high variance in answers both positive and negative (35% disagree, 36% agree). The quotes below, derived from the qualitative data, illustrate both negative and positive perceptions on 'Displace workers'.
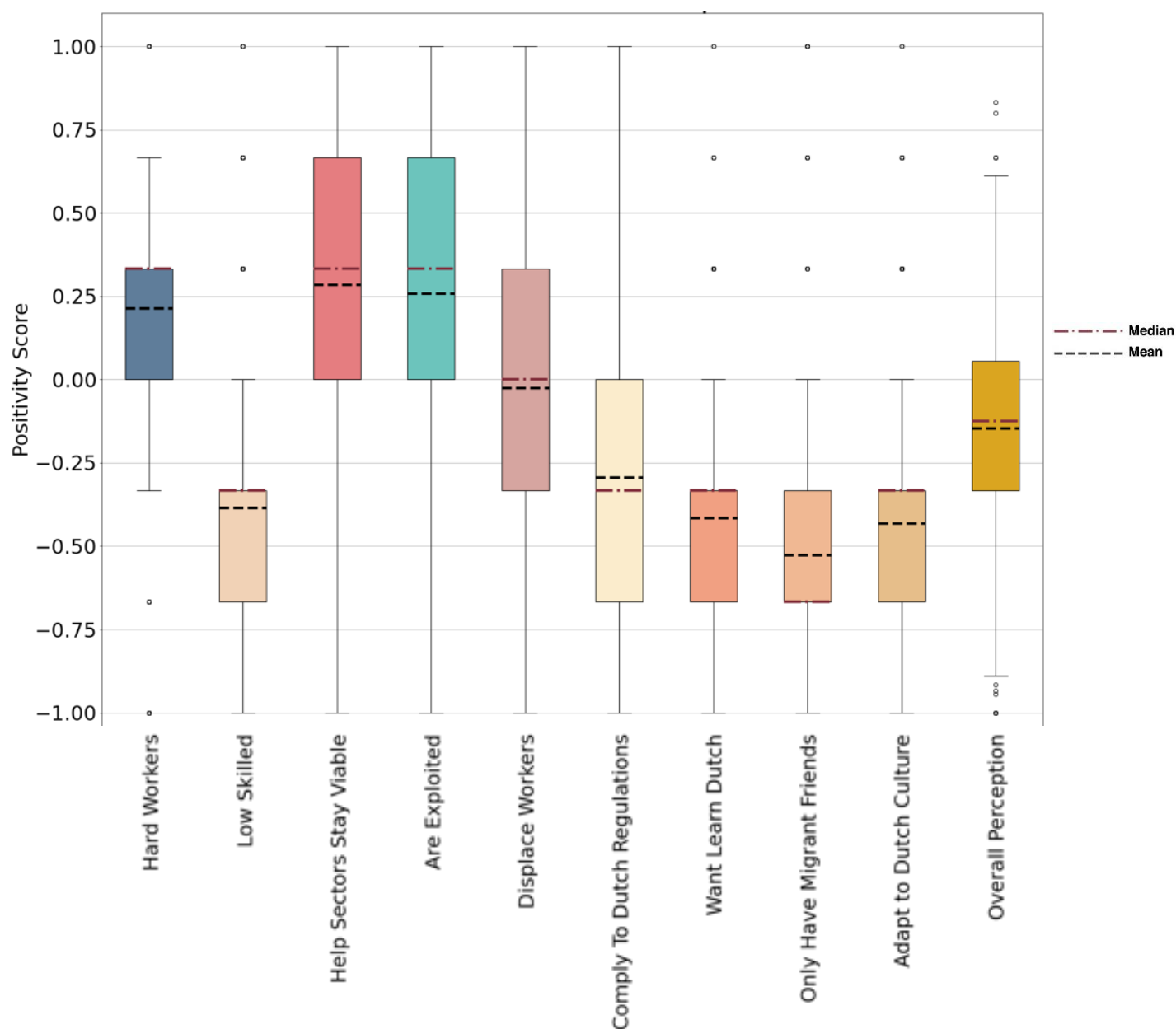
Figure 5.3 - Boxplot: Respondent's perceptions towards labour migrants.

'Some people think in a very short-sighted way, saying "They are stealing our jobs". Which makes me think, well, then why don't you go pick strawberries yourself, but no they wouldn't.' - Female, 67, Bosschenhoofd

'Our youth cannot find work because labour migrants work for less money and temporary employment agencies steal all jobs' - Female, 40-64, Oudenbosch

Section C - Consensus

For the consensus, the positivity score (table E.2 in Appendix E) is graphed in a boxplot again through matplotlib, see figure 5.4. The first box represents question 3 about attitudes toward 'labour migrants relocating to live and work in the Netherlands' (45% a bad thing, 32% a good thing) the second box represents question 4, regarding attitudes towards 'labour migrants living in Halderberge' (37% a bad thing, 29% a good thing), and the third box is the overall positivity score of all 5 statements of question 5 about consensus towards 'too many migrants', 'different cultures are positive for society', 'happy with migrants', 'nuisance' and 'concerns about housing'. Missing values (99 = 'I don't know / no opinion') were not taken into account in this boxplot, but in the percentages missing values were considered.

In the first two boxes, the median is in the middle, and relatively close to the mean, around the 0.0 mark. The whiskers also present a symmetrical distribution. This suggests a normal distribution with few respondents extremely positive and/or extremely negative. Although, the mean is slightly negative, which suggest that there are more negative than positive attitudes toward consensus.
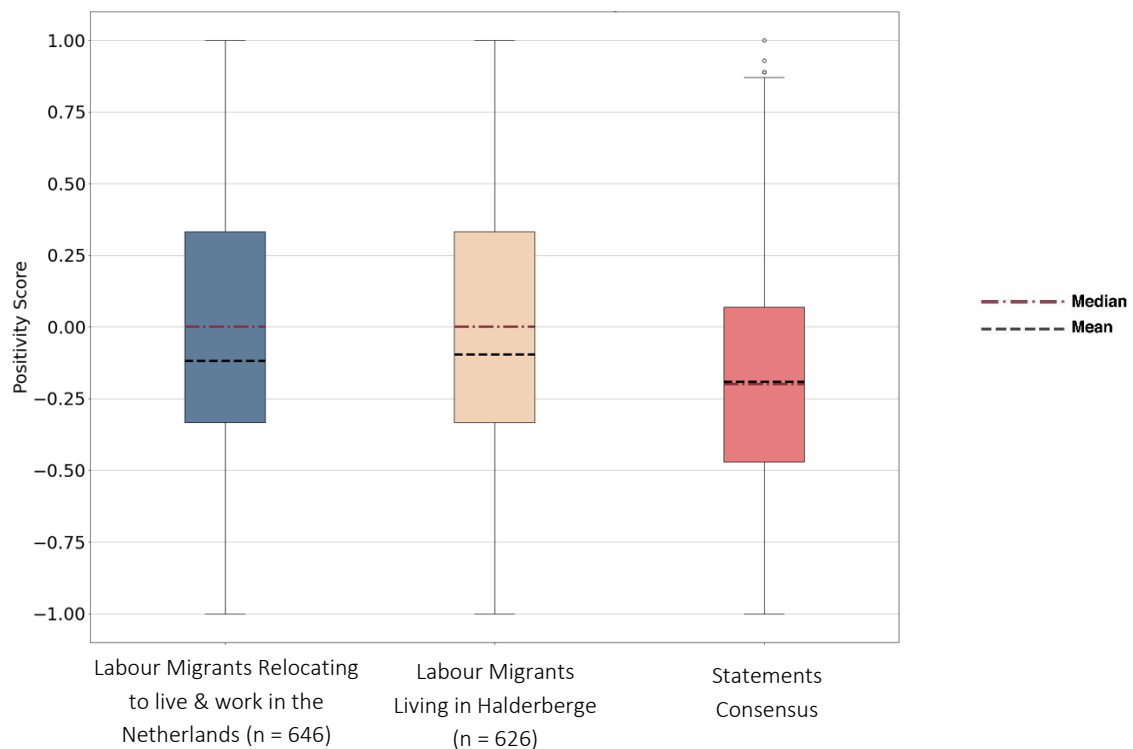
Figure 5.4 - Boxplot: Respondent's consensus towards labour migrants.

Although boxes one and two score quite similar, the score in the third box with consensus statements, scores more negative. This box represents the more in-depth questions about respondents' attitude towards consensus and gives better insights into what exactly lies behind their attitudes. To find out what can explain the more negative score of this box in relation to the other two, a composition bar chart was made in Tableau Public, see figure 5.5. The red coloured parts of the composition bar represent the slightly negative, negative and strongly negative attitudes. The green coloured parts of the composition bar represent the slightly positive, positive and strongly positive attitudes. The blue coloured part of the composition bar represents the neutral attitudes and the grey are the missing values.
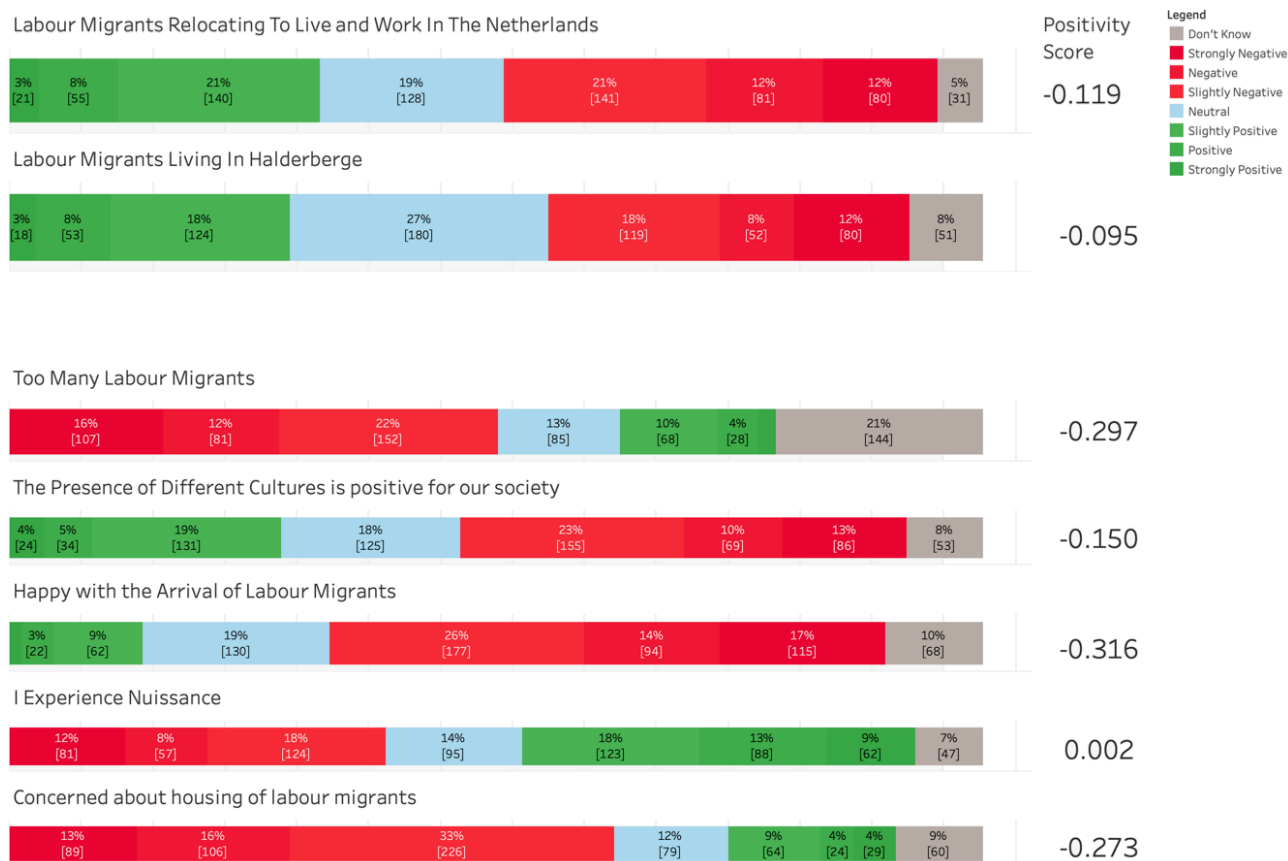
Figure 5.5 - Composition Bar Chart: Respondent's consensus towards labour migrants.

In Tableau Public, a certain colour or multiple colours of a composed bar chart can be selected, and the chart then presents how respondents falling in the selected category(ies) responded on the other questions. After exploring the data and examining different combinations, it was identified that respondents with an overall positive attitude (green colours) towards the first two questions 'Labour migrants relocating to live and work in the Netherlands' and 'Labour migrants living in Halderberge', were overall positive in all statements following in question 5, except for the last statement 'Concerned about housing'. Figure 5.6 illustrates this, the green blocks of the first bar are selected, presenting how respondents falling in this selected green category (overall positive individuals), responded on the other questions. The figure shows all statements have more green percentages than red percentages, and a positivity score above 0.0, except for the statement 'housing'. Altogether 68% of the selected respondents are negative about this aspect and the formula gives a negative score of -0.29 on a scale from -1 to 1 (see table E.3 in Appendix E).

This suggests that from the respondents with a higher positive consensus towards labour migrants, still two-third is concerned about the housing and only one out of eight is not concerned (13%). Respondents with a lower or lack of consensus towards labour migrants in the first two questions, remained mainly negative in the rest of the statements as well. This explains the more negative position of box three in the boxplot of figure 5.4. The quotes below figure 5.6, derived from the qualitative data, illustrate these results.

Labour Migrants Relocating To Live and Work In The Netherlands

3% [21]	8% [55]	21% [140]	19% [128]	21% [141]	12% [81]	12% [80]	5% [31]

Positivity Score: 0.483

Labour Migrants Living In Halderberge

7% [16]	21% [46]	45% [98]	17% [37]	3% [7]	6% [12]

Positivity Score: 0.377

Too Many Labour Migrants

3% [6]	16% [34]	14% [30]	23% [49]	8% [18]	4% [9]	31% [66]

0.120

The Presence of Different Cultures is positive for our society

8% [18]	8% [17]	34% [73]	18% [38]	20% [43]	2% [5]	2% [4]	8% [18]

0.162

Happy with the Arrival of Labour Migrants

4% [8]	9% [19]	24% [52]	28% [61]	19% [42]	13% [28]

0.103

I Experience Nuissance

3% [7]	16% [34]	12% [26]	21% [46]	22% [48]	18% [39]	6% [12]

0.325

Concerned about housing of labour migrants

9% [19]	16% [34]	43% [93]	10% [21]	11% [23]	2% [5]	8% [17]

-0.290

Legend
- Don't Know
- Strongly Negative
- Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Positive
- Strongly Positive

Figure 5.6 - Composition Bar Chart: Respondent's with an overall high consensus and their score regarding related consensus statements.

'The number of labour migrants is disproportionate to the number of inhabitants in Halderberge. I think it is fine if a percentage of labour migrants is housed in Halderberge who actually work here in the municipality. However, this is now hardly the case (see the touring cars at Pangnevaart).' - Female, 40-64, Hoeven

'A large number of labour migrants who are housed in Halderberge, do not work within Halderberge. Housing migrant workers is necessary and must be done properly, but in my opinion Halderberge should not have to solve the housing problem of other municipalities.' - Male, 25-39, Oud-Gastel

In the consensus section, respondents were also asked if they 'are worried about the arrival of labour migrants'. In the pie chart made in SPSS, see figure 5.7, the results of this question are shown. The 345 respondents that filled in 'slightly agree', 'agree' and 'strongly agree', were directed to follow-up question 7 with regards to 'what are you worried about?' This question might suggest the possible reasons for a lower or even lack of consensus towards labour migrants. The categories 'nuisance' (86%), 'crime' (77%) and 'housing problems' (57%) were most chosen, followed by 'lack of integration' (53%), 'length of stay' (45%) and 'culture threat' (38%), see figure 5.8.

As mentioned already in the data enrichment, see section C in 5.1.2 for more details, 56 respondents filled in the category 'About something else, namely'. Some common themes discovered in the open answers were 'work threat' (4%), 'personal threat' (1%), 'substance abuse' (6%) and 'bad driving behaviour' (3%). For the further analysis of this qualitative data, a sentiment analysis is suggested or an analysis through AtlasTi. Due to the limitations in time and the fact that the qualitative data has a supportive role in this data set, a word cloud was made instead via Phyton, see figure 5.9. For the word cloud, a number of steps were taken. First, spelling mistakes and typing errors were cleared (wrong letters, extra spaces). Second step was getting rid of the stop words, essentially getting rid of words that have no meaning. After these steps, a graph was generated, providing a clear overview of what was mentioned most. The quotes below the word cloud, derived from the qualitative data, illustrate the most common answers.
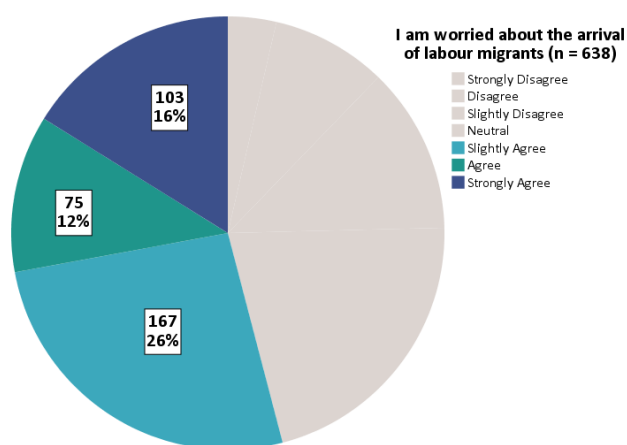
Figure 5.7 - Pie Chart: Number of participants that expresses worries towards the arrival of labour migrants.
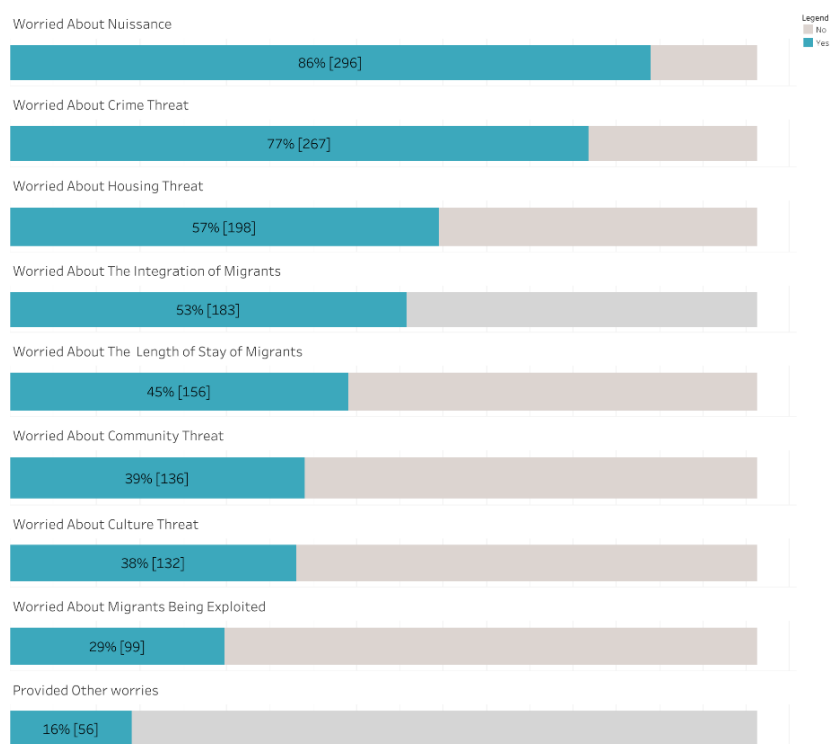
Figure 5.8 - Bar Chart: The type of worries towards the arrival of labour migrants.
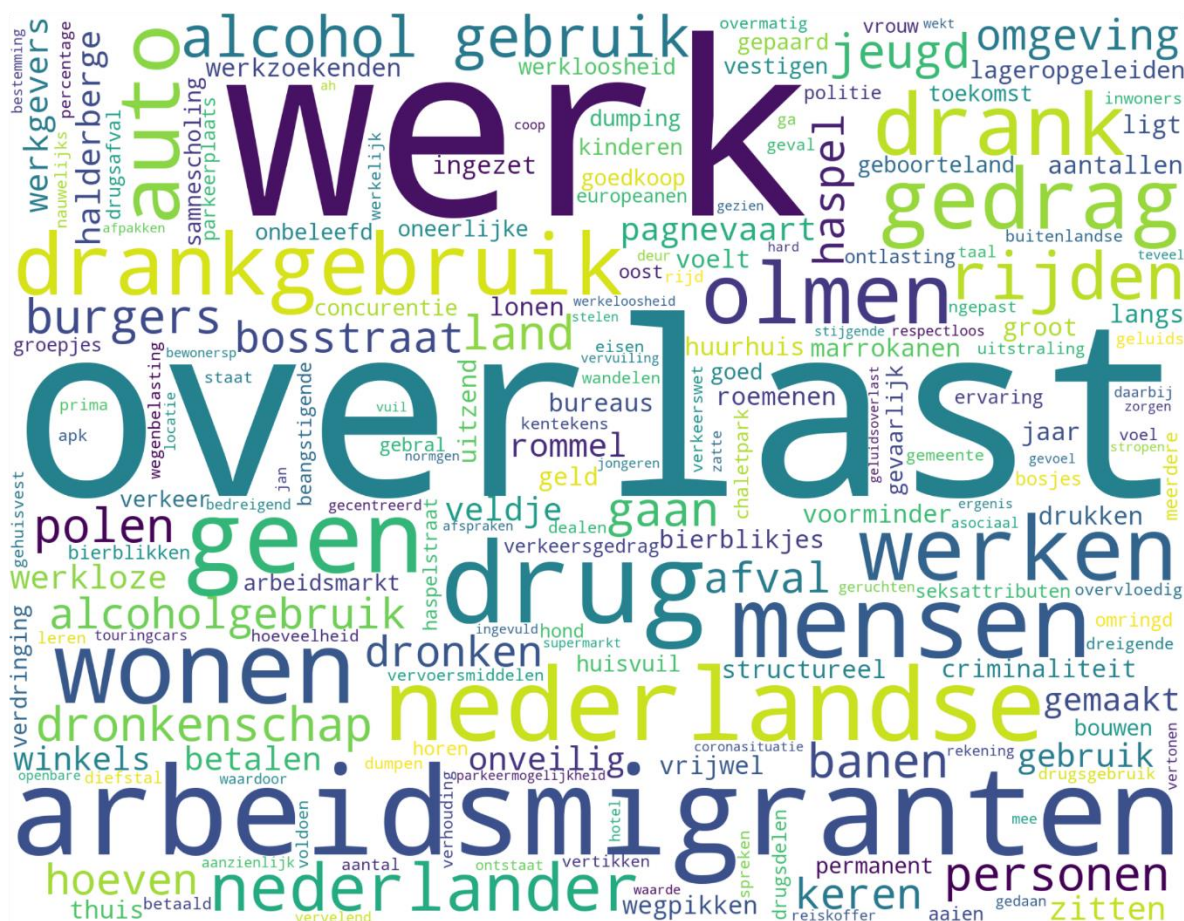
Figure 5.9 - Word Cloud: Open answers regarding worries towards the arrival of labour migrants.

'Nuisance caused by alcohol / drugs, non-compliance with Dutch traffic laws. Vehicles often do not meet the Dutch MOT (APK) requirements and no road taxes are being paid because people [migrants] drive with foreign license plates.'
- Male, 40-64, Stampersgat

'I have nothing against the labour migrants, but my problem is with the fact that they throw rubbish on the access roads, as well as driving under the influence of alcohol. More control over this behaviour is necessary'
- Male, 40-64, Hoeven

Section D - Integration

In the section integration, respondents were asked about the importance of integration and the current integration of labour migrants. More than half of the respondents (63%) agreed that it is important that labour migrants who work temporarily in the Netherlands should integrate and that more attention should be paid to integration, see figure 5.10. More than one-third of the respondents (39%) also agreed that the integration of labour migrants in Halderberge raises concerns.
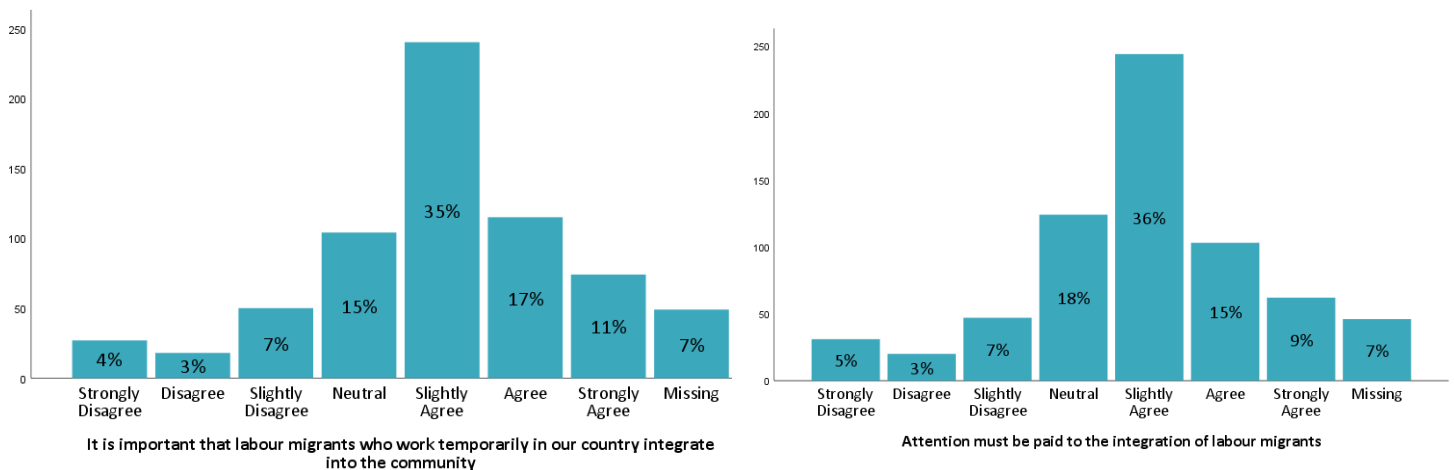
Figure 5.10 - Simple Bar Charts: Respondent's attitudes towards integration.
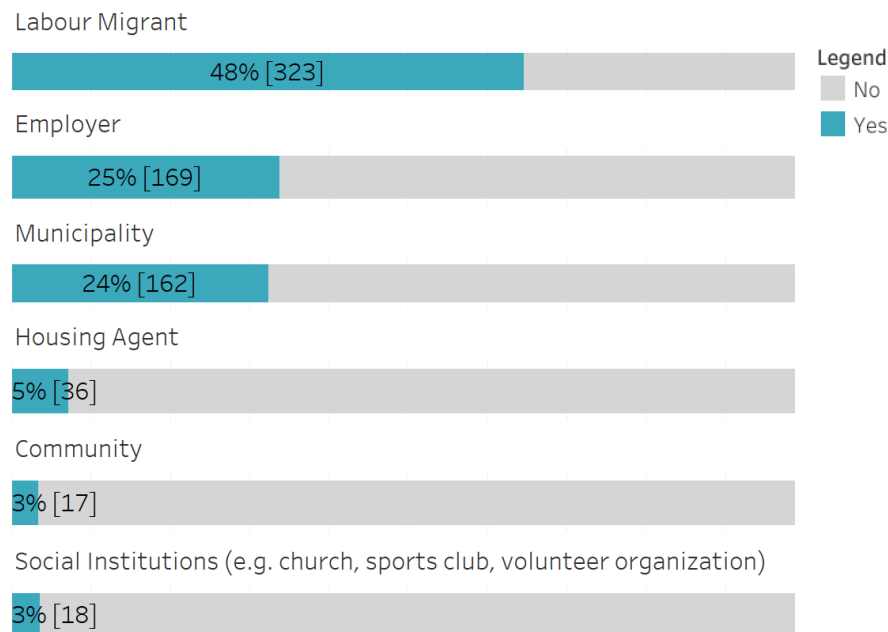
Figure 5.11 - Simple Bar Chart: Respondent's attitudes regarding whom is most responsible for the integration of labour migrants.

Respondents were also asked who is most responsible for the integration of labour migrants. Figure 5.11 shows almost half of the respondents (48%) filled in the 'labour migrant' themselves. Second most chosen option is the 'employer' (25%), and third the 'municipality' (24%). Remarkable is that a fraction of respondents (3%) saw the 'community' as responsible. This suggests that most respondents do not see a role for themselves when it comes to the integration of newcomers. The quotes below, derived from the qualitative data, illustrates some of the most chosen answers.

'Labour migrants have to support it [integration] themselves and want it themselves. As a municipality, we can invest a lot of time and money in this, but if they do not support it themselves, this will be of no use. Many travel back to their families regularly or every few weekends. They really do not want more contact with the Dutch population.' - Male, 40-64, Oudenbosch

'The number of labour migrants is not in line with what can be received within the community by local residents or social organizations. If the municipality chooses to accommodate so many labour migrants, it will also have to take responsibility for proper integration.' - Female, 40-64, Hoeven

'I don't believe in the integration of migrant workers. Learn from the past and don't make the same mistakes.' - Male, 65-79, Oudenbosch

'Integration also means adaptation/understanding from the current inhabitants. By keeping everything on a small scale, you prevent people on both 'sides' from quickly intensifying any discussions.' - Male, 40-64, Hoeven

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In the question about who is most responsible for integration, 31 respondents (5%) filled in an open text answer in the category 'other, namely'. The word cloud in figure 5.12 represents the most common answers.

Figure 5.12 - Word Cloud: Open answers regarding whom is most responsible for the integration of labour migrants.

Section E - Housing

The housing section was added by the municipality in the questionnaire. Most of these questions are not in line with the goals of this research due to their nature, except for the question about the 'suitability of housing types for labour migrants'. This question is interesting since the earlier sections showed that even the respondents that were positive about labour migrants, nevertheless showed their concerns about housing. In figure 5.13 a suitability boxplot was made through Python. Missing values were not taken into account in this boxplot. Percentages can be found in Appendix F.

The boxes are arranged from highest suitability (mean/median) to lowest suitability. With the last yellow box on the right representing the overall sentiment (the average of all questions). When looking at the yellow box with the overall score, the mean is below the zero line, suggesting the majority of people don't find any of the options suitable for migrant housing. When breaking it down, 'housing in residential areas, but only for labour migrant families' is most suitable (46% answered suitable, 30% unsuitable), followed by 'special locations for at least 150 labour migrants'. However, the mean for the second box is already below zero suggesting that even though it is the second most suitable option, still more people think it is unsuitable (37% answered suitable, 42%

unsuitable). The option 'housing in residential areas, where the rooms are rented separately' is valued as the least suitable by the respondents (12% answered suitable, 76% unsuitable). The quotes below, derived from the qualitative data, illustrate these answers.

'Housing should not be in residential areas, potential homes for first-time owners are being hijacked, so only families should be placed in residential areas.'
- Male, 65-79, Oudenbosch

'Labour migrants have a right to privacy, why have multiple migrants living under one roof [room sharing]? I would suggest housing in residential areas to give integration a chance. Perhaps more like housing locations for students, but then not outside the village but in the residential area. - Female, 40-64, Oudenbosch

'Depends on how long the person works in the Netherlands. If they work here for a longer period, then a permanent home and not on a holiday park or a temporary accommodation.' - Female, 40-64, Hoeven

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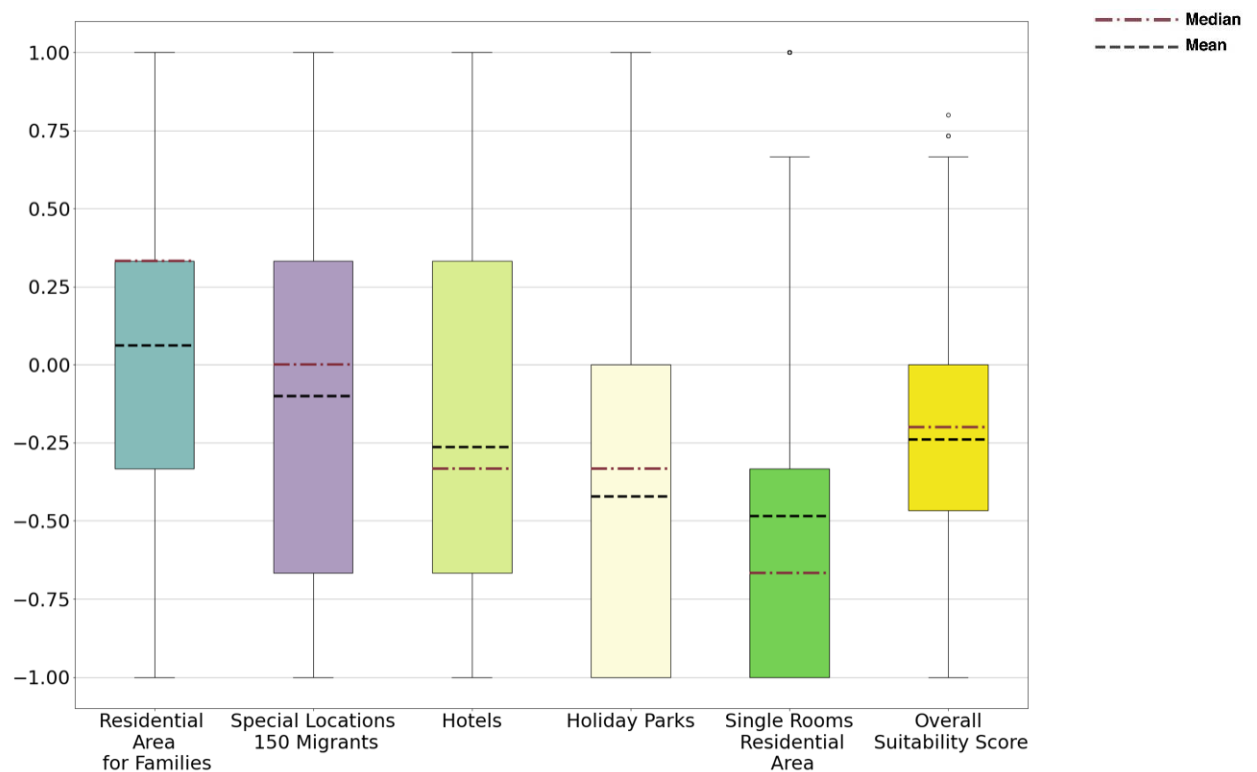
Figure 5.13 - Boxplot: Suitability of housing locations for labour migrants in Halderberge.

For the question 11 'maximum number of labour migrants in a home in a residential area' and question 12 'the presence of a permanent supervisor at the location where labour migrants live' a word cloud was again made via Phyton of the open answers in the 'other, namely' category, see figure 5.14.

Figure 5.14 - Word Cloud: Open answers regarding the maximum number of labour migrants per accommodation and the need for a permanent supervisor.

5.3.2 Explanatory analysis

In this subparagraph, the hypotheses from subparagraph 2.4.2, that are related to sub-question 3, are answered. Before moving to these hypotheses, a Correlation Matrix Plot was created via Jupyter including all enriched scores, see Appendix G.1 for more details. This figure shows if certain questions were related to each other. The lighter the colour (yellow) in the matrix, the more correlation is suggested, and data can be used for multi correlation or multi variance tests. The darker the colour (dark blue) in the matrix, the less correlation is suggested. When different statements in one question are related to each other, it means you can use one of them to compare it with another.

Hypothesis 1 - 'There is a difference in attitude between inhabitants from different villages towards labour migrants relocating to live and work in the Netherlands and living in Halderberge

The case description in Chapter 4 made clear that some villages house more labour migrants than other villages. It is assumed that the attitudes towards labour migrants differ per village. Either inhabitants can be more negative due to issues that come with a high number of labour migrants, or inhabitants can be more positive due to a higher possibility of personal contact. This is called correlation, 'an indication that there is a relationship between two variables' (Pallant, 2016, p. 128).

A one-way analysis of variance was conducted to compare the impact of independent variable 'residence' on the dependent variable 'attitude towards migrants relocating to the Netherlands' and 'attitude towards migrants living in Halderberge'. The analysis of variance compares the variance between different groups (Pallant, 2016). First the comparison was conducted by creating a boxplot through Python, see figure 5.15. The first boxplot on the left, shows that the mean of all boxes change from -0.05 to -0.15 (boxes left to right). In the second boxplot, the mean of the boxes change from 0.10 to -0.15. Furthermore, the answers in the first figure are more varied (longer box lengths) compared to the second figure (shorter box lengths).
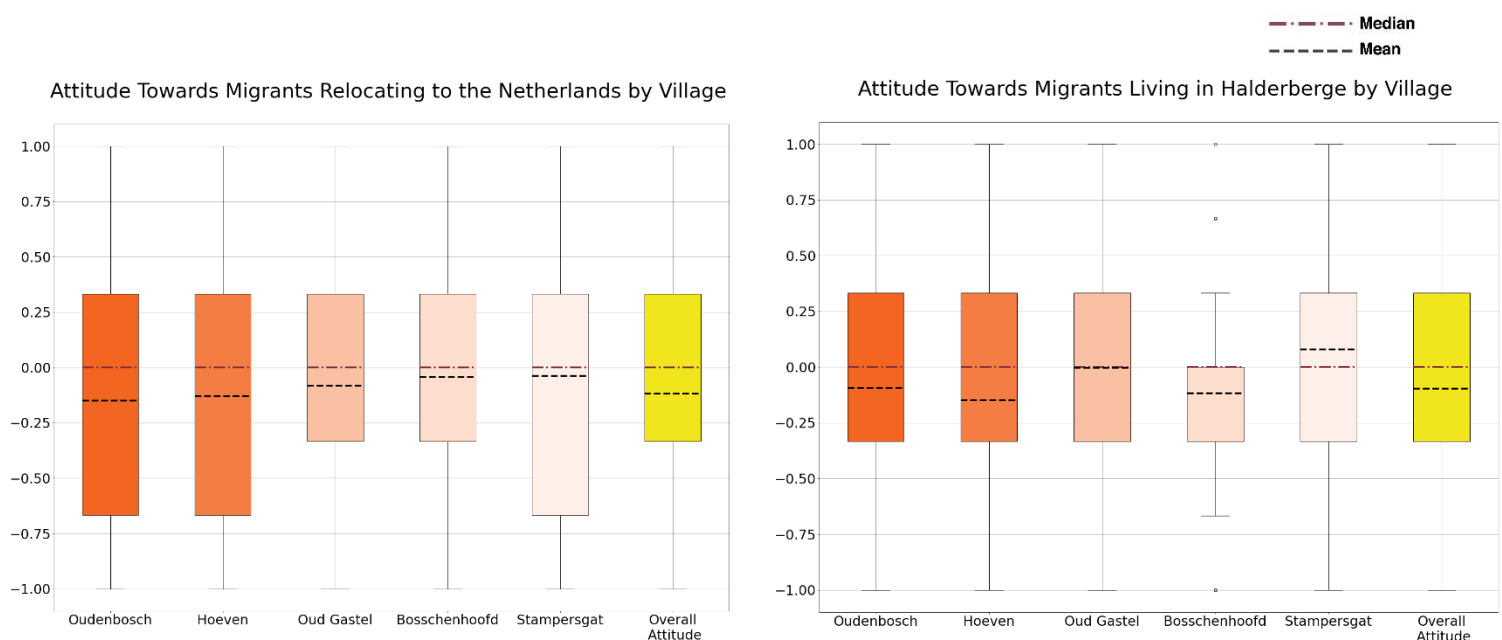

Figure 5.15 - Boxplot: One-way analysis of variance, comparing respondent's place of residence with their attitudes towards labour migrants relocating to the Netherlands and living in Halderberge.

Testing statistical significance between residence and consensus

ANOVA Test - Even though this figure tells us how the mean scores and groups differ (just like in a Post-hoc test using the Tukey HSD), it does not indicate whether the null hypothesis can be rejected or not. Therefore, a second one-way between-groups analysis of variance was conducted including an ANOVA test to explore the impact of 'residence' on the positivity score of attitudes towards 'relocating to the Netherlands' and 'living in Halderberge', as measured by the Life Orientation Test (LOT) in IBM SPSS. This ANOVA test shows whether significant differences occur in the mean scores of the dependent variable and the five groups in which participants are divided into, according to their residence (Pallant, 2016). For the five residence groups and 'relocating to the Netherlands' there is no statistically significant difference at the $p < .05$ level in LOT scores: $F(4, 641) = 0,757$, $p = .554$, see Appendix G.2 for more details. For the five residence groups and 'living in Halderberge', there is also no statistically significant difference at the $p < .05$ level in LOT scores: $F(4, 621) = 2,107$, $p = .078$. With both $p = .554$ and $p = .078$ we do not reject the null hypothesis of equal variances (or homogeneity). It is assumed that inhabitants of different villages have equal attitudes towards labour migrants relocating to live and work in the Netherlands and living in Halderberge, so this ANOVA assumption is met by our data (Pallant, 2016, p. 261).

Hypothesis 2 - 'There is a difference in attitude between inhabitants from different age groups, towards labour migrants relocating to live and work in the Netherlands and living in Halderberge'.

For hypothesis 2, A one-way analysis of variance was conducted again by creating a boxplot through Python, see figure 5.16, to compare the impact of independent variable 'age' on the dependent variable 'attitude towards migrants relocating to the Netherlands' as well as the 'attitude towards migrants living in Halderberge'. The boxplots in both figures are arranged from the lowest age group to highest. When looking at the age group 25 - 39, more respondents are negative about migrants living in Halderberge, compared to migrants overall working/living in the Netherlands. In the first figure the box of this age group is more stretched, and half of the data is above the 0.0 line, however, the mean and median stay the same across the two box plots. For the age group 40-64, the positivity score is above the median in the first figure, and below median in the second figure. It is worth mentioning that the more data each age group has, the lower the positivity score, which suggests further tests need to be conducted.
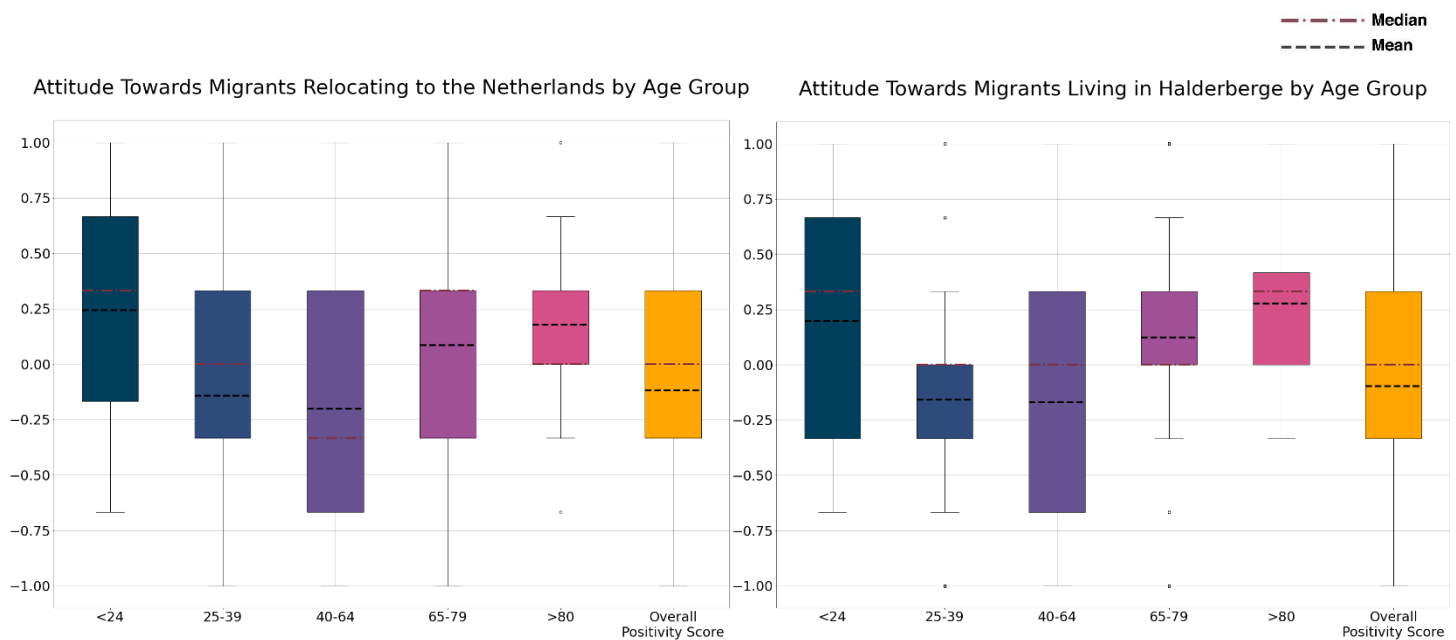
Figure 5.16 - Boxplot: One-way analysis of variance, comparing respondent's age with their attitudes towards labour migrants relocating to the Netherlands and living in Halderberge.

Testing statistical significance between age and consensus

ANOVA Test - To indicate whether the null hypothesis for this data can be rejected, an ANOVA test was again conducted in IBM SPSS to show whether significant differences occur in the positivity scores of the dependent variables and independent variable age. The ANOVA test is a hypothesis test, that determines whether three or more groups are statistically different from each other and is an equivalent of running multiple t-tests (Pallant, 2018). For the five age groups and 'relocating to the Netherlands', the test measured a statistically significant difference at the $p < .05$ level in LOT scores: $F(4, 641) = 10,019$, $p = .000$, see Appendix G.3 for more details. For age and 'living in Halderberge', there is also a statistically significant difference at the $p < .05$ level in LOT scores: $F(4, 621) = 10,988$, $p = .000$. With both statements giving $p = .000$, the null hypothesis of equal variances is rejected, and it can be assumed there is a relation between inhabitants age and their attitudes towards labour migrants relocating to live and work in the Netherlands as well as living in Halderberge (Pallant, 2016).

T-Test - The t-test is a hypothesis test, that determines whether two sub-groups within the population are statistically different from each other (Pallant, 2016). The box plot in figure 5.16 suggests that both age categories < 24 and 80 > are more positive than the other groups. To test if this assumption is significant at a 5% significance level, a t-test of means comparison was conducted to establish if these two age groups indeed differ from other age groups significantly. The closer the result of the t-test is to zero, the smaller the chance that the difference is coincidental (Bryman & Cramer, 2003). An independent-samples t-test was conducted to compare the consensus scores for the age group < 24 and 80 > with 40-64, since this group has the biggest sample size.

85

For attitude towards 'relocating to the Netherlands', there was a significant difference in scores for < 24 (M = 0.24, SD = 0.48) and 40 – 64 (M = -.20, SD = 0.53); t (381) = 3.18, p = .002, 2-tailed. For attitude towards 'living in Halderberge', there was a significant difference in scores for < 24 (M = .20, SD = .56) and 40 - 64 (M = -.17, SD = .52); t (366) = 2.71, p = .007, 2-tailed, see Appendix G.4 for more details (Pallant, 2016, p. 248).

For attitude towards 'relocating to the Netherlands', there was a significant difference in scores for 80 > (M = 0.18, SD = 0.44) and 40 – 64 (M = -.20, SD = 0.53); t (379) = 2.54, p = .011, 2-tailed. For attitude towards 'living in Halderberge', there was a significant difference in scores for 80 > (M = .28, SD = .37) and 40 - 64 (M = -.17, SD = .52); t (363) = 2.97, p = .003, 2-tailed, see Appendix G.5 for more details (Pallant, 2016, p. 248).

Interpretation differences – The t-test showed that both age groups < 24 and 80 > are statistically significant from the largest age group 40 - 64). The age group of < 24 is relatively more positive than the other categories. An explanation can be that there might not be enough data in this age group, but another option is illustrated by the following quote, derived from the qualitative data:

'I sometimes talk about labour migrants with friends, and I notice that they are more open about it. However, I also think that they might not specifically be more positive, but a lot of them is also just not interested in the subject. [...] But then if you talk about it, they also understand that labour migrants bring advantages. While I notice that older family members find it more difficult that people from different cultures come to live here' - Female, <24, Oud-Gastel

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For the category 80 > there are three assumptions that can explain the more positive attitude. A first explanation can be again that there might not be enough data in this age group, so not enough room for variation. A second explanation or assumption can be that these respondents are less mobile, and therefore experience fewer negative interactions. A third option can be best illustrated by the following quote, derived from the qualitative data:

'Anyone who, like me, has passed the age of 80, can hardly actively contribute to a subject like this. I also have no relationship with entrepreneurs, so a number of questions I could simply not answer. Not because of a lack of interest, but because I have insufficient knowledge of the matter. I think that you should take this seriously in assessing the answers. I hope the municipality will take good care of these people and prevent them from becoming victims of exploitative entrepreneurs and rogue employment agencies. They have the right to receive good accommodation and good salary!' - Male, 80>, Oud-Gastel.

Hypothesis 3: 'There is a difference in attitude between inhabitants with a different educational background towards labour migrants relocating to live and work in the Netherlands and living in Halderberge'.

For hypothesis 3, a boxplot was made through Python, see figure 5.17. This boxplot compares again both consensus variables with education level. Due to the low numbers of respondents, the categories 'primary education', 'no education', and 'other' were not taken into account in the boxplot. It is illustrated in these two figures that the overall positivity score [yellow box] stays exactly the same. Also, in the first figure, both University of Applied Sciences and University are most positive, but in the second figure the Secondary Vocational became second.
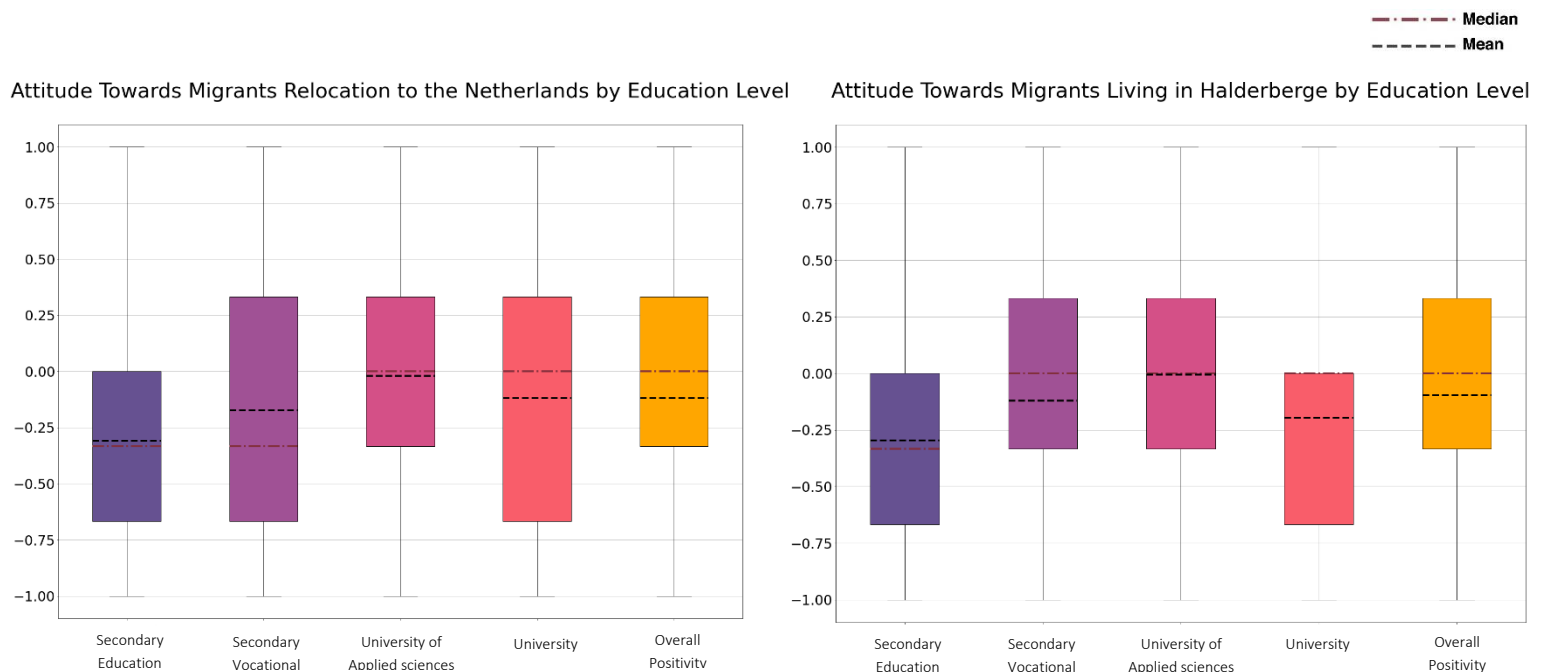
Figure 5.17- Boxplot: One-way analysis of variance, comparing respondent's educational level, with their attitude towards labour migrants relocating to the Netherlands and living in Halderberge.

Testing statistical significance between education level and consensus

ANOVA Test - To indicate whether the null hypothesis for this data can be rejected, an ANOVA test was again conducted in IBM SPSS. For the educational background and 'relocating to the Netherlands', the test measured a statistically significant difference at the $p < .05$ level in LOT scores: $F(5, 640) = 4,771, p = .000$, see Appendix G.6 for more details. For educational background and 'living in Halderberge', there is also a statistically significant difference at the $p < .05$ level in LOT scores: $F(5, 620) = 4,773, p = .000$. With both statements giving $p = .000$, the null hypothesis of equal variances is rejected, and it can be assumed there is a relation between the educational background of respondents and their attitudes towards labour migrants relocating to live and work in the Netherlands as well as living in Halderberge (Pallant, 2016, p. 261).

T-Test – The ANOVA test measured a statistically significant difference between at least three or more groups of respondents' education level (Pallant, 2016). To find out which group differs from the others, multiple t-tests of means comparisons between groups were conducted, see table 5.1 below.

What do you think about labour migrants relocating to live and work in the Netherlands?									
		Secondary Education		Secondary Vocational		University of Applied Sciences		University	
Variable	Mean	*t*	Sig. (p-value)	*t*	Sig. (p-value)	*t*	Sig. (p-value)	*t*	Sig. (p-value)
Secondary Education (n = 85)	-.31			-1.996	.047	-4.554	.000	-1.668	.098
Secondary Vocational (n = 220)	-.17	-1.996	.047			-3.331	.001	-.559	.577
University of Applied Sciences (n = 288)	-.02	-4.554	.000	-3.331	.001			1.059	.290
University (n = 34)	-.12	-1.668	.098	-.559	.577	1.059	.290		

What do you think about labour migrants living in Halderberge?									
		Secondary Education		Secondary Vocational		University of Applied Sciences		University	
Variable	Mean	*t*	Sig. (p-value)	*t*	Sig. (p-value)	*t*	Sig. (p-value)	*t*	Sig. (p-value)
Secondary Education (n = 83)	-.30			-2.649	.008	-4.626	.000	-.898	.371
Secondary Vocational (n = 216)	-.12	-2.649	.008			-2.580	.010	.812	.418
University of Applied Sciences (n = 277)	-.00	-4.626	.000	-2.580	.010			2.131	.034
University (n = 34)	-.20	-.898	.371	.812	.418	2.131	.034		

Table 5.1 - T-test: Relation between respondent's education level and their attitudes towards labour migrants relocating to the Netherlands and living in Halderberge.

Interpretation differences - The t-test in the first table 'attitude towards migrants relocating to the Netherlands' shows only one educational category turned out to be not significant at a 5% level, which is the University level. This could be the result of the group being relatively small to perform statistical testing on. The three other educational categories do show a significant difference, and therefore differences can be interpreted. There was a significant difference in scores

for Secondary Education and Secondary Vocational (*t* = -2.00, *p* = .047), between Secondary Education and University of Applied Sciences (*t* = -4.55, *p* = .00) and between Secondary Vocational and University of Applied Sciences (*t* = -3.33, *p* = .00). It is worth noting that the higher the education level of a respondent, the more positive about migrants relocating to the Netherlands they are (Pallant, 2016, p. 248).

The t-test in the second table 'attitude towards migrants living in Halderberge' shows again that the educational category 'University' turned out to be not significant at a 5% level, this could be explained by the reasons discussed above. The three other educational categories do show a significant difference, and therefore differences can be interpreted. There was a significant difference in scores for Secondary Education and Secondary Vocational (*t* = -2.65, *p* = .008), between Secondary Education and University of Applied Sciences (*t* = -4.63, *p* = .000) and between Secondary Vocational and University of Applied Sciences (*t* = -2.58, *p* = .010) (Pallant, 2016, p. 248). It is worth mentioning the higher the education level of a respondent, the more positive about migrants living in Halderberge.

Hypothesis 4: 'There is a difference in worries between different genders regarding the arrival of labour migrants'.

To test hypothesis 4, a rose diagram was made through matplotlib, see figure 5.18. This diagram presents the worries toward the arrival of labour migrants for men and women independently. Each ring around the circle is 25% of the total.
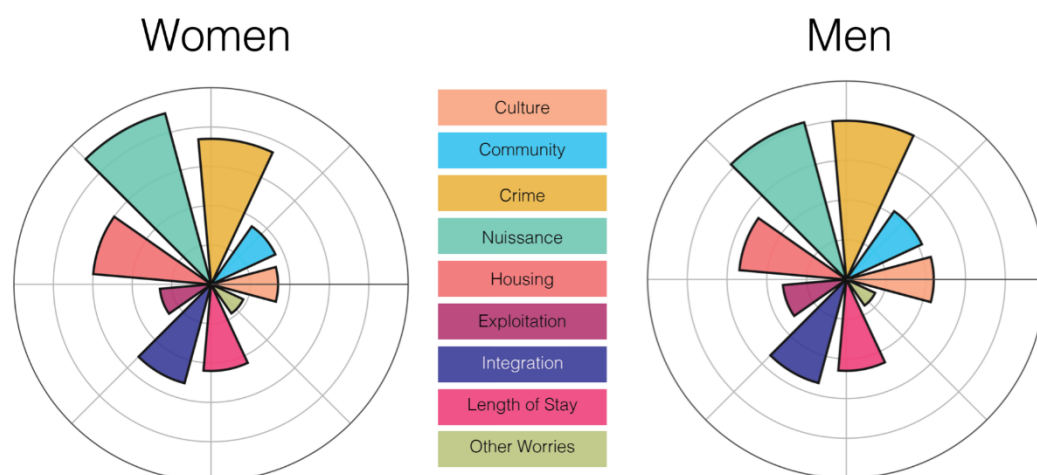
Figure 5.18 - Rose diagram: Type of worries towards the arrival of labour migrants, divided by women and men.

Testing statistical significance between residence and consensus

Chi-square test - To see if there is an association between gender and the type of worries, the chi-square test for independence was conducted to explore the relationship between two categorical variables gender (Male/Female) and worry (yes/no) (Pallant, 2016). The column labelled Asymptotic Significance in the row Continuity Correction shows the significance level which should be .05 or smaller to be significant. The significance for 'Culture threat' is .074, for

'Community feeling' .367, 'Crime' .184, 'Nuisance' .108, 'Housing problems' .312 and 'Exploitation' .196. This means for all categories, the value is larger than the alpha value of .05, so the type of worries men chose are not significantly different from the types of worries women chose. The chi-square test for independence (with Yates' Continuity Correction) indicates no significant association between gender and the kind of worries. Therefore the null hypothesis is not rejected, see Appendix G.7 for more details. It is assumed men and women have equal worries when it comes to the arrival of labour migrants (Pallant, 2016, p. 217).

Hypothesis 5: 'There is a relation between the degree of personal contact and the perception towards labour migrants'

For hypothesis 5, it was decided to only use the personal contact score, and leave out the impersonal contact score, because having personal contact has more impact on perception because of the direct nature of the interaction. As mentioned in the subparagraph 2.1.2, creating knowledge about the norms, beliefs and values of the outgroup, which are the migrants in this case, reduces negative perceptions as well as uncertainty. Creating trust, empathy and personalizing people from the out-group reduces perceived threats (Stephan & Stephan, 2017).

As mentioned already in the data enrichment, the outcome of the formula of 'degree of personal contact' is between 0 and 1, where 0 means no personal contact and 1 meaning a lot of personal contact. To analyse the impact of the independent variable 'degree of personal contact' on the dependent variable 'perceptions', the 'degree of personal contact' was divided into four scores: 0.00 No Personal Contact [n = 507], 0.333 Low Personal Contact [n = 115], 0.667 Average Personal Contact [n = 44] and 1.0 Great Personal Contact [n = 11], see Appendix G.8 for more details. Conclusions cannot be drawn on this last group (Great Personal Contact → n = 11), because it is too small to perform statistical testing on. Though this last group still shows how rare it is to have individuals with a really high score on personal contact with labour migrants. Realistically only the first three groups can be tested statistically, but the pattern still remains. Even when you add a little bit of personal contact, the whole distribution goes up. A one-way analysis of variance was conducted to compare the impact of the four different 'personal contact scores', on the dependent variable 'perception', by creating a boxplot through Tableau, see figure 5.19.

Variation of Perception Based on the Degree of Personal Contact
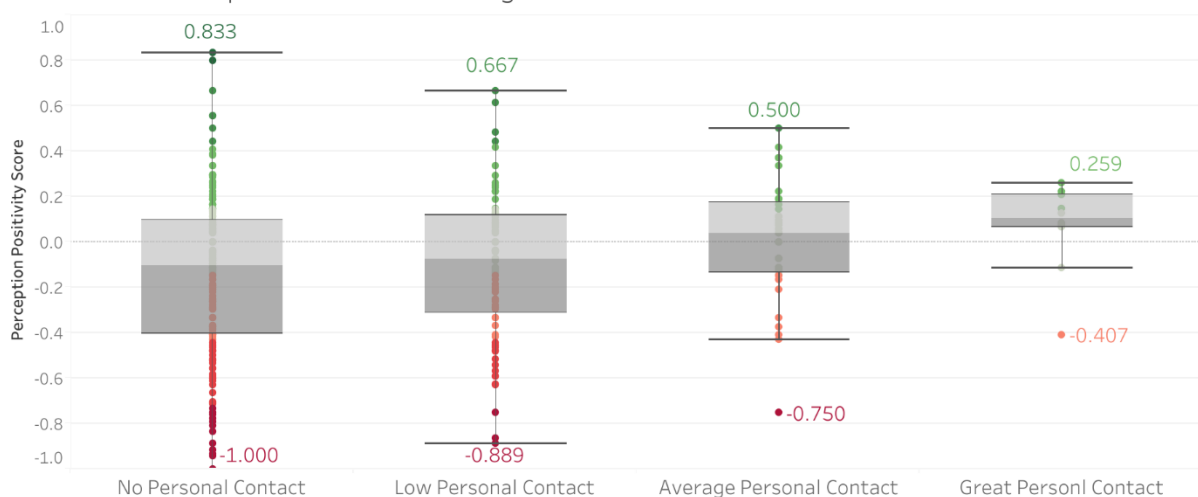

Figure 5.19 - Boxplot: One-way analysis of variance, comparing participants degree of personal contact with labour migrants, with their overall perception.

Testing statistical significance between degree of personal contact and perception

Hierarchical Multiple Linear regression - The boxplot suggests there is a slight correlation between personal contact and the perceptions. The greater the personal contact, the higher the bottom and upper quartile of the box. A hierarchical multiple linear regression analysis was conducted in IBM SPSS to compare both variables with continuous and metric numbers ranging from -1 to 1, and a few nominal control variables. The dependent variable of perception is the phenomenon we want to explain and measure it on the basis of explanatory variable personal contact and the control variables.

Multiple regression was used to assess the ability of one control measure (personal contact score) to predict perceptions, after controlling for the influence of age, education level, residence, gender and employment situation, see Appendix G.9 for more details. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity (Pallant, 2016, p. 168). After the variables in Block 1 were entered, age, education level, residence, gender and employment situation, the overall model explains 3.9% of the variance in perceptions. After entry of Block 2 variable (personal contact) the total variance explained by the model as a whole was 8.5%. Since for some variables small samples are involved, it might even be better to use the Adjusted R square. In block 1 the model explains then 3.2% of the variance in perceptions and block 2 explains 7.7%. The ANOVA table indicates that the model as a whole (which includes both blocks of variables) is significant F (6, 666) = 10.33, p < .000. The control measure (personal contact) explained an additional 4.6% of the variance in perception, after controlling for age, education level, residence, gender and employment situation, R squared change = .046, F change (1, 666) = 33.62, p < .000. In the final Coefficients model, only the control measure Personal contact and age were statistically significant, with the Personal contact recording a higher beta value (*beta* = .22, p < .000) than the age (*beta* = .15, p < .001) (Pallant, 2016, p. 168). Therefore, the null hypothesis of equal variances is rejected, and it is assumed there is a relation between degree of personal contact and perception. The quote below, derived from the qualitative data, supports these results.

'Well, both Dutch and migrant colleagues whom do the same work, are aligned. So, I don't really see a difference between us and them.'
- Male, 40-65, Oudenbosch

5.3.3 Interview results

To support the quantitative data, interviews were conducted with five survey respondents. Worth noting in these interviews, is that four out of the five respondents were relatively more positive and more nuanced in their perspectives towards labour migration in comparison to the survey results. It could be a coincidence that the selected interviewees answered slightly different from the majority. One of the interviewees worked together with them [migrants] as colleagues, another one was a spiritual guide for a religious organisation, another one had lived in various areas inside and outside the Netherlands, and a fourth interviewee knew a person working at this topic [of labour migration] for the municipality. Another explanation could be that those being relatively more positive, were more willing to share their attitude with a researcher than those that have a negative perspective. However, it can be said that the interviewees appreciated the hard-working mentality of the labour migrants, the fact that they leave everything behind to relocate to work and live in a new foreign country and to do the jobs that the local Dutch population is not willing to do. At the same time the interviewees also expressed their concerns. How to connect with your new migrant neighbours, if you do not speak the same language? Do the migrants actually have a satisfying private life in the Netherlands? What about their access to healthcare and integration? The thoughts about the last one though varied a lot. Some believed integration should be stimulated, for example by housing migrants within the residential area instead of on the outskirts, especially when it comes to migrant families. Others emphasised integration is not necessary, since most migrants are coming here temporarily, and they need to be willing to integrate themselves. These interviewees mentioned migrants should better be housed outside the residential areas, for example because of the nuisance they might cause. Nuisance though was only mentioned by two out of the five interviewees. One of them mentioned the initial anxiety for nuisance was worse than the actual nuisance experienced. The other interviewee mentioned that they had experienced nuisance from labour migrants walking around often being drunk, they also noted that migrants are involved in criminal activities and create a feeling of insecurity in their residential village Hoeven.

5.4 Perspectives on demographic changes

This paragraph answers sub-question 4 as mentioned in paragraph 1.2: 'How does the local population feel about the demographic changes and do they see a future role for labour migrants in shaping these transition spaces?' The paragraph is divided into a descriptive and an explanatory analysis of all data relevant to answer this question. An overview of all responses per question, can be found in Appendix F.

5.4.1 Descriptive analysis

Section F - Population decline

The final part of this analysis is the section population decline in combination with labour migration. In question 15, respondents were asked about their awareness of forecasted population decline. The results are shown in the pie diagram in figure 5.20. A quarter of the residents indicated that before completing the questionnaire, they were fully aware of the possible decrease in population numbers in the municipality of Halderberge (25%). In addition, 38% of the inhabitants indicated that they are somewhat aware of the possible decrease in population numbers. 37% indicate that they were not aware of a future population decline.
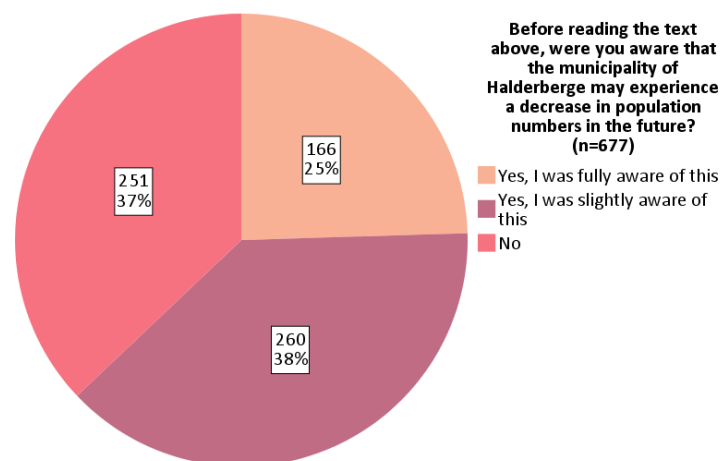
Figure 5.20 - Pie Diagram: Respondent's awareness of population decline.

After the awareness question, respondents were asked in question 16, whether they are concerned about the previous prognosis. As mentioned in the data enrichment subparagraph, their responses were calculated in a concern score ranging from -1.0 not concerned to 1.0 concerned (table E.6 in Appendix E). Figure 5.21 below shows the scores in a boxplot made through matplotlib.

The first box 'Concern towards population decline' shows a longer box ranging from -0.66 to 0.00, and whiskers ranging from -1.00 to 1.00, meaning the range of scores are more spread out. However, the box does not show any unusual outliers. The whiskers are also not the same length meaning the distribution is skewed. The data suggests that overall, respondents are not concerned about population decline. The frequencies table in Appendix F confirms this, showing that 60% of the respondents filled in 'not concerned' about population decline, and only 16% filled in

'slightly concerned'. The second box 'Concern towards work force shortages' shows a smaller box ranging from -0.33 to 0.00, and also smaller whiskers with an equal length, meaning the answers are less spread and symmetrical. However, it shows a few unusual outliers, and 'when there are unusual cases, they show the top and bottom 25% of scores only approximately because the unusual cases are excluded' (Field, 2018, p. 316).
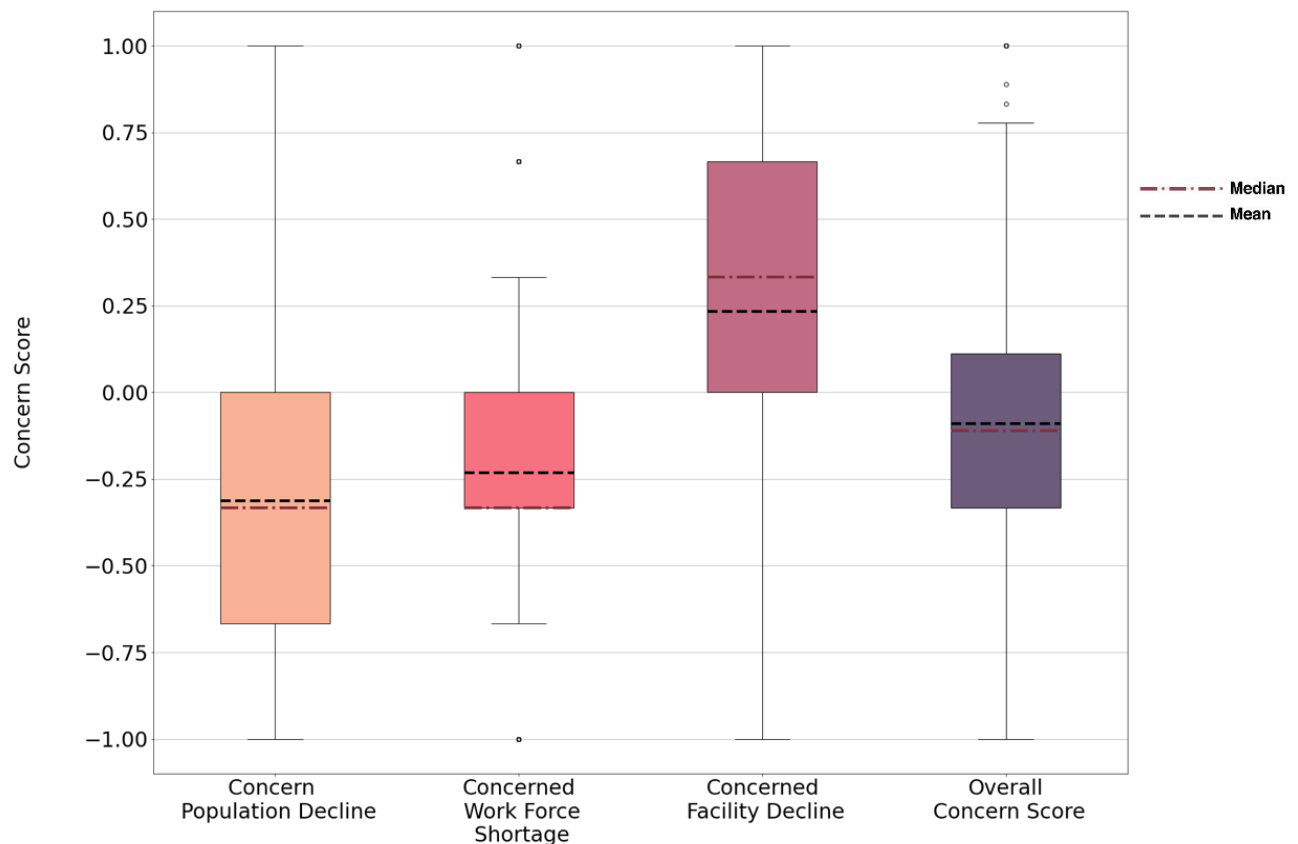

Figure 5.21 - Boxplot: Respondent's concerns towards forecasted population decline.

Both the box mean and median are below zero, suggesting respondents are not concerned about future shortages in the work force. From the participants, 58% thinks that this will be solved in the future for example through automation. Only 16% are concerned that shortages in work force will cause problems in the future. When it comes to a 'Concern towards decrease in social facilities in Halderberge', a different pattern emerges. Of the respondents, 22% are not concerned that a lack of facilities makes Halderberge less attractive to live in, compared to 61% that agree that a loss of social facilities makes the municipality less attractive to live in. The fourth box [located most right] shows the overall concern score for all three statements. The mean and median are below 0.0 meaning that overall respondents are not overly concerned about the future population decline. A lack of concern about population decline also assumes a less important role or no role at all is ascribed to labour migrants in preserving local social facilities and solving labour force shortages. This leads us to the next question 17, after some quotes, derived from the qualitative data, that support the data in the boxplot of figure 5.21.

'If the population of Halderberge declines (which has not yet been proven at all), it would not matter. If the number of social facilities decrease, that's okay. Give buildings and land back to nature. Make Halderberge the most beautiful and greenest municipality, and there will definitely come enough people to admire it all. Pay attention to greenery and recreation and let the labour migrants stay home.' - Male, 65-79, Oudenbosch

'The statement that the population will decline in future is unbelievable (untrue). The Dutch government already mentioned this nightmare scenario 10 years ago, but the population has grown with 1.25 million inhabitants during this period (2x Rotterdam). The houses in cities are unaffordable, and within 5 years there will be a massive move of people from the southern region of the Randstad towards centres such as Halderberge. This trend is already observable.'
- Male, 40-64, Hoeven

'One of the questions stated that the population of Halderberge will age by 2040. However, I wonder to what extent this is a correct statement. There are three current examples where new constructions were created based on an estimate of decreasing population numbers (accommodation SC Gastel, primary school Talente, primary school Hoeven). In all three projects proved to lack in proper accommodation space, and with planned new buildings constructions ahead, especially in Oud Gastel, this does not seem to improve.'
- Male, 40-64, Oud-Gastel

After the concern question, respondents were asked about the potential role in future population decline of labour migrants in question 17. Figure 5.22 below shows the statements in a boxplot based on the calculated positivity score made through matplotlib. Missing values have not been taken into account in this boxplot, and percentages can be found in Appendix F.
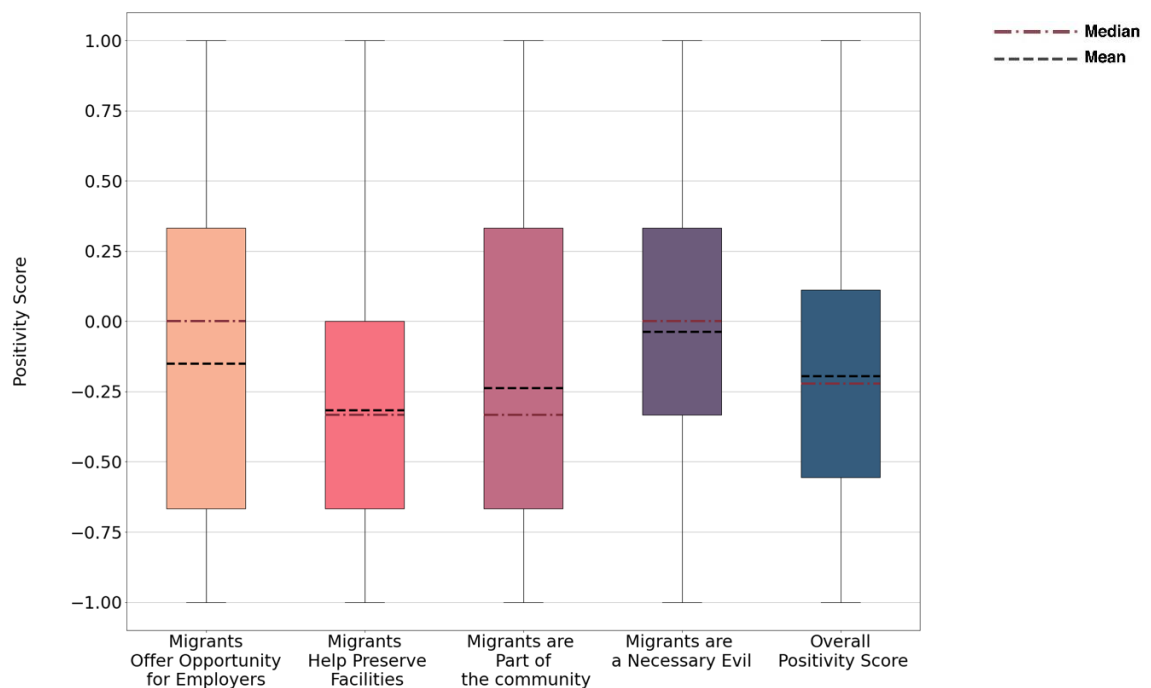

Figure 5.22 - Boxplot; Respondent's attitudes towards a future role for labour migrants.

The first box presents the statement 'I see the deployment of labour migrants as an opportunity for employers in Halderberge'. The box is relatively long and the whiskers stretch from -1.00 to 1.00, suggesting a high variance in respondents answers. Almost half of the respondents disagreed (44%) on the statement while about one-third (32%) agreed. The second box presents the statement 'I see the presence of labour migrants as an opportunity to preserve social facilities'. The box is relatively shorter than the first one, but completely below 0.0, meaning that at least half of the respondents disagreed (62%) on the statement, and only a small group (19%) agreed which are represented by the top whisker stretching to 1.0. The statements 'I see labour migrants as a part of the future community' shows again a high variance in answers due to the long box, but the mean and median are below 0.0 suggesting more respondents disagreed on the statement (53%) than agreed (26%). The fourth box represents the statement 'I see labour migrants as temporary (and necessary) evil'. The upper and lower quartile are both at -0.33 and 0.33, the whiskers have the same length, the mean and median are (almost) at 0.0 and no outliers are detected, suggesting an almost equal distribution of positive (34% disagree) and negative (44% agree) respondents. The last blue box on the right represents the overall sentiment (the average of all questions). When you look at the overall, it is below the zero line, suggesting the majority of people don't ascribe a role to labour migrants in future population decline when it comes to the maintenance of social facilities or to cope with labour shortages. The following quotes, derived from the qualitative data, aid to clarify these findings.

'In my opinion, labour migration has become a necessary matter in our municipality (country), as the youth stays longer in school and are no longer motivated to do manual labour. At the same time, the process of ageing continues so we will have to "learn" to live and work together with these people!!!!!!!! Ps. I am ashamed that this has not worked out the way it should yet, and we still cannot live together as ordinary people, also on the part of the labour migrants itself of course!!!'
- Female, 25-39, Hoeven

'If a small community like ours is confronted with too many immigrants, it will rather result in a departure of the local population, than an incentive to stay because the library remains open filled with half Polish books.'
- Male, 40-64, Bosschenhoofd

'Labour migrants come here to work (temporarily). If the labour conditions are better elsewhere, they will move there. It is pointless and naive to think they want to settle here permanently. Only a very, very, small proportion will have that intention. Do not put money into the idea that you can bind these people to the social environment of Halderberge.'
- Male, 40-64, Hoeven

5.4.2. Explanatory analysis

In this subparagraph, the hypotheses that are related to sub-question 4, as formulated in subparagraph 2.4.2, are tested.

Hypothesis 6: 'The level of concerns towards population decline are influenced by the age group, gender, education level and employment situation of inhabitants'.

Figure 5.21 in the previous descriptive subparagraph 5.4.1 showed the results of the level of concerns respondents have towards population decline. The different categories are overall 'concerns about population decline', 'concerns about shortages in work force' and 'concerns about a decrease of social facilities'. To test hypothesis 6, and detect whether there are differences between these categories shown in the box plots, a one-way analysis of variance (ANOVA) was conducted involving one categorical independent variable at a time, compared to the continuous dependent variable of concerns.

Testing statistical significance between concerns towards population decline and age group, gender, education level and employment situation

ANOVA & T-Test – Multiple one-way between-groups analysis of variance (ANOVA) were conducted to explore the impact of different categorical independent variables age, gender, education level and employment situation on the 'concerns about population decline', as measured by the Life Orientation Test (LOT) in IBM SPSS.

For the five age groups and 'concerns about population decline', there was no statistically significant difference at the $p < .05$ level in LOT scores: $F(4, 666) = 1.23$, $p = .298$, see table in Appendix G.10 for more details. It is therefore assumed that inhabitants belonging to different age groups, have similar concerns towards population decline (Pallant, 2016, p. 261).

For the five education level groups and 'concerns about population decline', there was a statistically significant difference at the $p < .05$ level in LOT scores: $F(5, 665) = 3.72$, $p = .002$, see table in Appendix G.10 for more details. It is therefore assumed that inhabitants with different educational backgrounds, have different concerns towards population decline (Pallant, 2016, p. 261).

To indicate which groups within the educational level score significantly different on 'concerns about population decline', a t-test was performed on the categories Secondary Education, Secondary Vocational, University of Applied sciences and University. The other groups Primary Education and 'other, namely', were too small to perform statistical testing on.

An independent-samples t-test was conducted to compare 'concerns about population decline' for educational levels, see table 5.2 below. There was no significant difference in scores for Secondary Education and Secondary Vocational ($t = -.20$, $p = .85$), between Secondary Education and University of Applied Sciences ($t = .22$, $p = .83$) and Secondary vocational and University of Applied Sciences ($t = .73$, $p = .47$).

There was a significant difference in scores for University and Secondary Education ($t = 2.50$, $p = .01$), University and Secondary Vocational ($t = 3.56$, $p = .00$), and University and University of applied sciences ($t = 3.07$, $p = .00$) (Pallant, 2016, p. 248).

Concerns towards population decline									
		Secondary Education		Secondary Vocational		University of Applied Sciences		University	
Variable	Mean	t	Sig. (p-value)	t	Sig. (p-value)	t	Sig. (p-value)	t	Sig. (p-value)
Secondary Education (n = 87)	-.08			-.196*	.845*	.222*	.825*	2.496	.014
Secondary Vocational (n = 227)	-.07	-.196*	.845*			.729	.467	3.564	.000
University of Applied Sciences (n = 302)	-.10	.222*	.825*	.729	.467			3.069	.004
University (n = 35)	-.28	2.496	.014	3.564	.000	3.069	.004		

* Equal variances not assumed

Table 5.2 - T-test: Relation between respondent's education level and their concerns towards population decline.

For the nine employment situation groups and 'concerns about population decline', there was no statistically significant difference at the $p < .05$ level in LOT scores: $F (8, 662) = 1.46$, $p = .169$, see table in Appendix G.10 for more details. It is therefore assumed that inhabitants from different employment situations have similar concerns towards population decline (Pallant, 2016, p. 261).

Since the ANOVA cannot be performed for categorical variables with fewer than three groups, the significant difference for gender was calculated using a t-test. For the two gender groups, Male and Female, and 'concerns about population decline', there was a significant difference in scores for Male ($M = -.13$, $SD = 0.34$) and Female ($M = -.05$, $SD = 0.35$); $t (669) = -3.055$, $p = .002$, 2-tailed, see table in Appendix G.10 for more details. It is therefore assumed that men and women have different concerns towards population decline (Pallant, 2016, p. 248).

Hypothesis 7: 'The attitudes towards a future role for labour migrants in times of population decline, are influenced by the age group, gender, education level and employment situation of inhabitants'.

Figure 5.22 in the previous descriptive subparagraph 5.4.1 showed the results of attitudes respondents have when it comes to a future role for labour migrants. The different responses are divided in whether 'migrants offer opportunities for employers', 'help to preserve local facilities', 'can be part of the community' or are seen as 'temporary necessary evil'. To detect whether there are differences between these categories shown in the box plots, a one-way analysis of variance

(ANOVA) was conducted involving one categorical independent variable at a time, compared to the continuous dependent variable of concern.

Testing statistical significance between attitudes towards a future role for migrants and age group, gender, education level and employment situation

ANOVA & T-Test – Multiple one-way between-groups analysis of variance (ANOVA) were conducted to explore the impact of different categorical independent variables age, gender, education level and employment situation on the 'attitudes towards a potential future role for labour migrants', as measured by the Life Orientation Test (LOT) in IBM SPSS.

For the five age groups and 'attitudes towards a potential future role for labour migrants', there was a statistically significant difference at the $p < .05$ level in LOT scores: $F (4, 669) = 6.06$, $p = .000$, see table in Appendix G.11 for more details. It is therefore assumed that the inhabitants belonging to different age groups have different attitudes towards a potential future role for labour migrants (Pallant, 2016, p. 261).

To indicate which age categories, score significantly different on 'attitudes towards a potential future role for labour migrants', a t-test was performed on the categories 25 – 39; 40 – 64 and 65 - 79. The other groups < 24 and 80 > were too small to perform statistical testing on.

An independent-samples t-test was conducted to compare 'attitudes towards a potential future role for labour migrants' and age groups, see table 5.3 below. There was a significant difference in scores between age groups 25 – 39 and 65 - 79 ($t = -3.10$, $p = .00$), and between the age groups 40 – 64 and 65 - 79 ($t = -3.63$, $p = .00$). There was no significant difference in scores between the age groups 25 – 39 and 40 - 64 ($t = .01$, $p = 1.0$) (Pallant, 2016, p. 248).

The attitudes towards a future role for labour migrants in times of population decline								
		25 – 39		40 – 64		65 - 79		
Variable	Mean	*t*	Sig. (p-value)	*t*	Sig. (p-value)	*t*	Sig. (p-value)	
25 – 39 (n = 134)	-.24			.010	.992	-3.093	.002	
40 – 64 (n = 383)	-.24	.010	.992			-3.626	.000	
65 - 79 (n = 127)	-.07	-3.093	.002	-3.626	.000			

Table 5.3 - T-test: Relation between respondent's age and their attitudes towards a future role for labour migrants.

For the five education level groups and 'attitudes towards a potential future role for labour migrants', there was a statistically significant difference at the $p < .05$ level in LOT scores: $F (5, 668) = 4.76$, $p = .000$, see table in Appendix G.11 for more details. It is therefore assumed that inhabitants with different educational backgrounds, have different attitudes towards a potential future role for labour migrants (Pallant, 2016, p. 261).

To indicate which groups within the educational level score significantly different on attitudes towards 'attitudes towards a potential future role for labour migrants', a t-test was performed on the categories Secondary Education, Secondary Vocational, University of Applied sciences and University. The other groups primary education and other were too small to perform statistical testing on.

An independent-samples t-test was conducted to compare 'attitudes towards a potential future role for labour migrants' and educational level, see table 5.4 below. There was a significant difference in scores for Secondary Education and Secondary Vocational ($t = -2.42$, $p = .02$), between Secondary Education and University of Applied Sciences ($t = 4.49$, $p = .00$) and Secondary Vocational and University of Applied Sciences ($t = -2.69$, $p = .01$). There was no significant difference in scores for University and Secondary Education ($t = -1.25$, $p = .21$), University and Secondary Vocational ($t = .34$, $p = .74$), and University and University of Applied Sciences ($t = 1.67$, $p = .10$) (Pallant, 2016, p. 248).

The attitudes towards a future role for labour migrants in times of population decline									
		Secondary Education		Secondary Vocational		University of Applied Sciences		University	
Variable	Mean	t	Sig. (p-value)	t	Sig. (p-value)	t	Sig. (p-value)	t	Sig. (p-value)
Secondary Education (n = 91)	-.36			-2.423	.016	-4.489	.000	-1.25	.214
Secondary Vocational (n = 227)	-.23	-2.423	.016			-2.69	.007	.339	.735
University of Applied Sciences (n = 301)	-.12	-4.489	.000	-2.69	.007			1.674	.095
University (n = 35)	-.25	-1.25	.214	.339	.735	1.674	.095		

* Equal variances not assumed

Table 5.4 - T-test: Relation between respondent's ducation level and their attitudes towards a future role for labour migrants

For the nine employment situation groups and 'attitudes towards a potential future role for labour migrants', there was a statistically significant difference at the $p < .05$ level in LOT scores: $F_{(8, 665)} = 2.57$, $p = .009$, see table in Appendix G.11 for more details. It is therefore assumed that inhabitants with different employment situations have different attitudes towards a potential future role for labour migrants (Pallant, 2016, p. 261).

To indicate which groups within the employment situation, score significantly different on attitudes towards a future role for labour migrants in times of population decline, a t-test was performed on the categories Employee, Entrepreneur, Housewife/Houseman and retired. The other groups of students, freelancer, unemployed, incapacitated for work and 'other, namely', were too small to perform statistical testing on.

An independent-samples t-test was conducted to compare 'attitudes towards a potential future role for labour migrants' and employment situation, see table 5.5 below. There was a significant difference in scores for Employee and Retired ($t = -3.38$, $p = .00$) and between Entrepreneur and Retired ($t = -2.30$, $p = .02$). There was no significant difference in scores for Employee and Entrepreneur ($t = .33$, $p = .74$), Employee and Housewife/Houseman ($t = -.60$, $p = .55$), Entrepreneur and Housewife/Houseman ($t = -.70$, $p = .48$) and Housewife/Houseman and Retired ($t = -1.63$, $p = .11$) (Pallant, 2016, p. 248).

The attitudes towards a future role for labour migrants in times of population decline									
		Employee		Entrepreneur		Housewife/man		Retired	
Variable	Mean	t	Sig. (p-value)	t	Sig. (p-value)	t	Sig. (p-value)	t	Sig. (p-value)
Employee (n = 362)	-.24			.328*	.744*	-.604	.546	-3.382	.001
Entrepreneur (n = 54)	-.26	.328*	.744*			-.703*	.484*	-2.307	.022
Housewife (n = 53)	-.20	-.604	.546	-.703*	.484*			-1.626	.106
Retired (n = 120)	-.08	-3.382	.001	-2.307	.022	-1.626	.106		

* Equal variances not assumed

Table 5.5 - T-test: Relation between respondent's employment situation and their attitudes towards a future role for labour migrants.

For the two gender groups, Male and Female, and attitudes towards a future role for migrants, there was no significant difference in scores for Male ($M = -.18$, $SD = 0.47$) and Female ($M = -.22$, $SD = 0.42$); $t (672) = 1.078$, $p = .281$, 2-tailed, see table in Appendix G.11 for more details. It is therefore assumed that men and women have similar attitudes towards a future role for labour migrants (Pallant, 2016, p. 248).

Hypothesis 8: 'There is a relation between worries regarding population decline and the attitude towards the future role of labour migrants in shaping transition spaces.'.

Both variables of hypothesis 8 consisted of a seven-point Likert scale, and were converted into continuous and metric numbers. With these continuous and metric numbers, a Multiple Linear Regression analysis could be conducted, first in Tableau and later in IBM SPSS, see figure 5.23. The dependent variable 'attitude towards a potential future role for labour migrants' is the phenomenon we want to explain, which is a continuous metric ranging from -1 to 1, and measure it on the basis of the explanatory variable 'concerns about population decline', also ranging from -1 to 1.

Testing statistical significance between concerns about population decline and attitudes towards the future role of migrants

Hierarchical Multiple Linear regression - The linear line in figure 5.23 suggests there is a slight correlation between 'concerns about population decline' and the 'attitude towards a potential future role for labour migrants'. The higher the concern score, the higher the positivity score towards a potential future role. A hierarchical multiple linear regression analysis was conducted in IBM SPSS to compare both variables with continuous and metric numbers ranging from -1 to 1, and a few nominal control variables. The dependent variable of 'attitudes towards a potential future role for labour migrants' is the phenomenon we want to explain and measure it on the basis of explanatory variable 'concerns about population decline', and the control variables.

Multiple regression was used to assess the ability of one control measure (concern score) to predict 'attitudes towards a potential future role for labour migrants', after controlling for the influence of age, education level, residence, gender and employment situation, see Appendix G.12 for more details. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity (Pallant, 2016, p. 168). After the variables in Block 1 were entered, age, education level, residence, gender and employment situation, the overall model explains 3.2% of the variance in perceptions. After entry of Block 2 variable (concern score), the total variance explained by the model as a whole was 15.2%. The ANOVA table indicates that the model as a whole (which includes both blocks of variables) is significant $F_{(6, 661)} = 19.82, p < .000$. The control measure (concern score) explained an additional 12% of the variance in the attitudes towards a future role for migrants, after controlling for age, education level, residence, gender and employment situation, R squared change = .120, F change $(1, 661) = 93.62, p < .000$. In the final Coefficients model, only the control measure Concern score and education level were statistically significant, with the concern score recording a higher beta value (*beta* = .36, $p < .000$) than the education level (*beta* = .17, $p < .000$) (Pallant, 2016, p. 168). Therefore, the null hypothesis of equal variances is rejected, and it is assumed that there is a relation between the concerns about population decline and attitudes towards a potential future role for migrants.
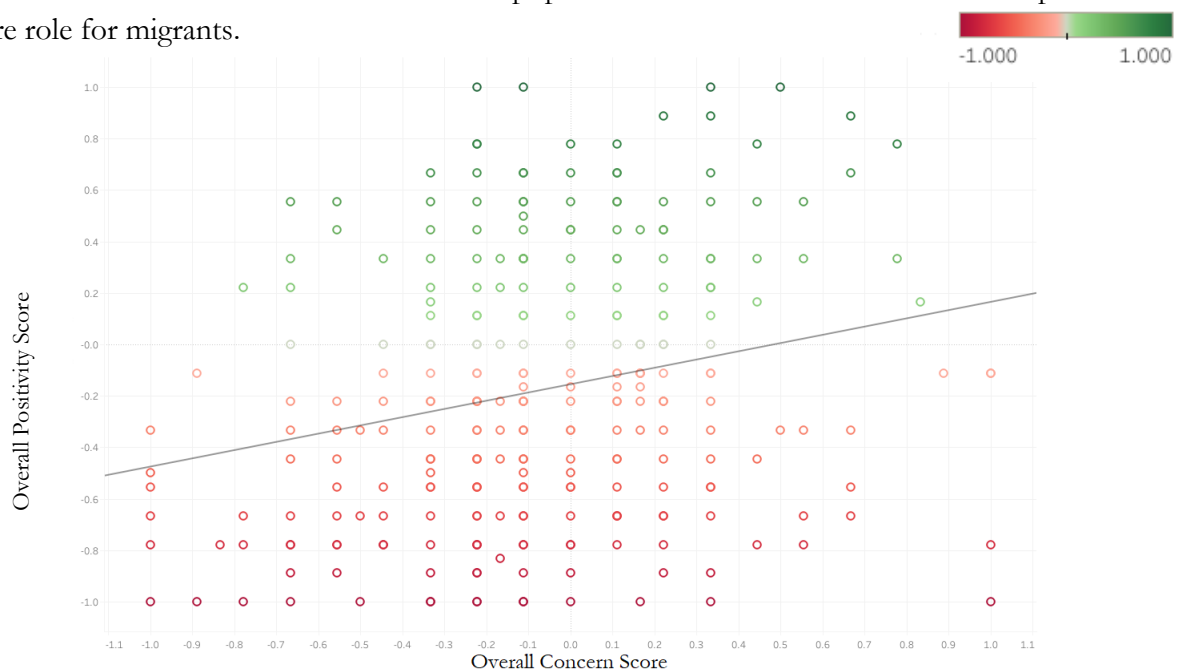

Figure 5.23 - Multiple Linear Regression; Comparing respondent's concerns towards population decline, with their attitudes towards a future role for labour migrants.

5.4.3 Interview results

Interviewees were asked if they are concerned about population decline, and if they ascribe a future role to migrants in times of population decline. Regarding the concerns towards population decline, the opinions varied. Most of them were familiar with the process of ageing and therewith population decline happening in the Netherlands in the coming decades. Some did not experience the process of ageing in Halderberge yet or did not even expect it will be happening (soon) in the municipality. Two of the interviewees mentioned the high number of new constructions in Halderberge which attracted a lot of young families to the region as an explanation. However, two other interviewees understood that youngsters prefer to live in big cities, such as Breda, Tilburg or Rotterdam. One of them also mentioned the high number of cases of dementia in South-West Brabant that provides proof of the ageing process, however this person found the rising housing prices rare in times where population is declining and ageing. When it comes to a potential future role for labour migrants, most respondents agreed to not ascribe a role to labour migrants. For example, in preserving the local churches, labour migrants come from secular countries with less emphasis on the importance of churches. Besides, language barriers are a problem, integration is difficult and it is believed that labour migrants only intend to stay temporarily. One of the respondents though mentioned that in the case where population declines would happen, migrants could play a role at least in preventing labour shortages. A prerequisite for this is improved housing and better cooperation between different the various parties involved. Another interviewee believes if social facilities cannot be maintained for the locals in future, then the potential impact of labour migrants will also be insignificant.

6. Conclusions and recommendations

This final chapter, presents the conclusions and the recommendations of my research. In the first paragraph, the conclusion of the main research question is outlined. Thereafter, this conclusion is substantiated based on the results of the sub-questions. In the second, a critical reflection including strengths and limitations on how the research was executed can be found. The last paragraph gives recommendations for both further research and policy interventions for the province of Noord-Brabant and the municipality of Halderberge.

6.1 Conclusions

This master thesis research aimed to answer the following research question: 'What characterizes the transition space incurred by demographic changes and labour migration in Halderberge and what is the local population's attitude towards these two concepts and their implications for the community?' To answer this question, both literature research, as well as quantitative and qualitative research, were conducted. The results of this study could point the policymakers in the right direction in terms of policy development towards demographic changes and labour migration.

In the literature, transition space is understood as a space in which the social relations are constantly reproduced, as detailed in subparagraph 2.1.1. This transition space, creates the opportunity to generate new relations, provided that negative attitudes towards newcomers are reduced, by means of personalisation. The results of this research confirmed this theory, as it became apparent that personalisation in the form of personal contact and direct interactions between labour migrants and inhabitants of Halderberge, indeed are a determining factor for the attitudes these inhabitants have towards this group of newcomers. The respondents which were characterised by having a higher degree of personal contact with labour migrants, have been shown to have a more positive perception towards them. However, this group presented only the minority. The majority of respondents were characterised with a lack of personal contact, and therefore exhibited more concern towards migrants.

Concerns towards immigration remain therefore predominant. These concerns were found to be even higher, than the concerns towards population decline. This is in line with the theory of Black et al. (2010), which states that immigration raises concerns of social problems, as detailed in subparagraph 2.3.3. This is further built upon with the theory of Van Dalen & Henkens (2011), which indicates that immigration comes with mixed emotions, in which inhabitants may reject the opportunities immigration offers towards mitigating the implications of demographic changes, as detailed in subparagraph 2.3.4. Thus, it can be concluded that the small number of respondents that do perceive demographic changes to be a disruptive force in society, are more likely to favour immigration.

Finally, for this research, a number of observations can be made regarding the background variables and their explanation of attitudes towards demographic changes and labour migration, as detailed in subparagraph 2.4.2, 5.2.1 and 3.5.2 Section H. The first observation, has shown that the different geographical locations of inhabitants, i.e. different villages, do not impact the attitudes towards labour migrants. The second observation, highlights that differences in education level and age do have an impact on these attitudes. This result confirms partly the assumptions of Van Dalen & Henkens (2005), which state that educational level does matter in attitudes, but challenges their theory that the age of respondents does not have a noticeable effect on attitudes. The third observation is regarding gender, where men and women have been shown to have equal worries when it comes to the arrival of labour migrants, despite the overrepresented young male migrants as mentioned by Black et al. (2010). The fourth observation, indicates that among respondents and their concerns towards population decline, no clear differences can be found as a function of age groups, employment situation, but differences can be found as a function of gender and education level. In the fifth and last observation, the age group, education level and employment situation are found to be influential on the attitudes towards a future role for labour migrants in times of population decline. In the last two assumptions, background variables were added as control variables, and therefore do not confirm nor challenge an exciting theory.

This quantitative and qualitative study, including elements of literature research, has shown that the municipality of Halderberge lies on the foot of a demographic transition. It is facing expected labour shortages, a potential decline in social facilities, a forecasted rise in property abandonment, all culminating in the eventual deterioration of the living environment. At the same time, Haderberge, sees an influx of labour migrants. This influx raises concerns of social problems such as nuisance, lack of integration, the often inadequate housing and the lack of a proper oversight regarding exact numbers. Given the aforementioned characteristics, the quantitative and qualitative research has shown that the overall sentiment of the local inhabitants, towards demographic change, is that of a lack of concern. On the other hand, when it comes to labour migrants, the majority expresses their worries towards the perceived negative impact of labour migrants on the community. And thus, it comes as no surprise, that overall, the local inhabitants lack support for a potential future role for migrants in rejuvenating a community that could be facing a demographic shift.

In summary, the results of this research have shown that the arrival of labour migrants from other European member states, and their implications for the rural area of Halderberge, seem to inspire greater fear than the forecasted population decline and its implications for the labour market and the living environment. It appears that the driving forces behind these fears, are determined by the lack of interactions between migrants and inhabitants, a two-sided perception on their added value and a low consensus mainly due to housing issues, nuisance and the lack of integration of these newcomers.

In the following section, this conclusion is substantiated and expanded upon on the basis of the results per research sub-question, which shows a more in-depth conclusion per section.

Transition space incurred by demographic changes and labour migration

This section aims to answer the sub-questions 1 and 2 which are elaborated upon in Chapter 4: 'What characterizes the transition space incurred by demographic changes in Halderberge in the provincial context of Noord-Brabant?' & 'What role do European labour migrants play in shaping this transition space?'. To answer these questions, mainly desk research was conducted.

In the results it became apparent that both Halderberge, as well as other outskirt regions of Noord-Brabant, experience a transformation. This transformation is encouraged by the forecasted demographic changes. These changes are expected to cause a new economic and social reality on the outskirts, as detailed in paragraph 2.2. The new economic reality is predicted to be one with an increasing tension on the labour market. Where a decrease in labour force, coupled with a rise in unfilled vacancies, is expected to threaten the continuity and growth of the (local) economy. The new social reality is predicted to be one characterised by a pressure on the local (public) facilities and rapid incline of property abandonment.

The aforementioned transformation is also encouraged by labour migration, which alters the ethnic profile, and there with the social order of the rural community, as detailed in paragraph 2.1. Immigration, is accompanied by various issues. One of those issues is the inadequate safe housing, which increases the potential of illegal housing. Other points of contention are the lack of sufficient policies on integration and registration. These factors contribute negatively to the transition space, which in turn, is likely to transit into a place of exclusion of these newcomers. New policies on labour migration are therefore necessary, to mitigate these issues and thus help create a broader consensus among the local population towards labour migrants. The next section elaborates on this further.

The presence of labour migrants in the community

This section aims to answer sub-question 3, which is: 'What is the local population's attitude towards the presence of European labour migrants in the community and how do factors such as contact frequency, perception, consensus, integration and housing influence the local population's attitude?' To answer this sub-question, a survey and interviews were conducted.

In the results it became apparent that the majority of the inhabitants mainly have impersonal and indirect contact with labour migrants. According to the inhabitants, this is the result of the language barriers and inapproachability, i.e. labour migrants are perceived to live in their own bubble. Conversely, only a small minority of inhabitants indicated to have personal and direct contact with labour migrants. As mentioned in the conclusion of the main research question those individuals with a higher degree of personal contact with labour migrants, have a more positive perception towards them.

Since intensive interactions are pursued only by a small minority, (negative) prejudices remain predominant in the overall perceptions of the respondents. Migrants are mainly perceived as low-skilled and unwilling to integrate in Dutch society. What stood out, is that the results endorse the two-sided perception on labour migration as mentioned in subparagraph 2.3.4. On the one hand, part of the inhabitants is concerned that labour migrants displace Noord-Brabant workers and structurally pressure the wages of low-skilled jobs. On the other hand, the majority does see labour migrants as hard workers and believe they do help sectors stay viable.

The driving forces behind these overall negative attitudes are also coupled with a lack of support for labour migrants relocating to live and work in the Netherlands, nor for housing of said labour migrants in Halderberge. Research showed that one of the main reasons for this low support, is related to issues that revolve around housing. A first issue is that housing of labour migrants is often accompanied by experiences of nuisance, or at least anxiety towards expected experiences of nuisance. The feelings of unsafety, crime and the substance abuse in the community present the most common types of complaints. A second issue is linked to the broader context of the housing market in the Netherlands, where it is increasingly difficult to find (starter) homes. This is further aggravated by the congested housing conditions of labour migrants, as well as the toleration of illegal housing solutions, such as converting holiday parks to permanent migrant settlements.

A key element that intersects most areas of this research is the lack of integration among labour migrants. A majority of the inhabitants endorse that more attention must be paid to this topic. Labour migrants themselves are thereby seen as most responsible for their own integration, in addition to the employer and the municipality.

All of these issues highlighted above, translate into a sense of worry amongst the participants [more than half] towards the arrival of labour migrants, irrespective of the potential demographic changes explored below.

The forecasted demographic changes in the community

This section aims to answer sub-question 4, which is: 'How does the local population feel about the demographic changes and do they see a future role for labour migrants in shaping these transition spaces?' To answer this last sub-question, the survey and interviews were again used as with the previous section.

In the results it became apparent that overall a majority of the inhabitants are not concerned about population decline in Halderberge. However, those who have shown slight levels of concern, focus mainly on the consequences of labour shortages, but not on the decline in (social) facilities. Subsequently, there was no support found for the idea that a future role could be ascribed to labour migrants in revitalising the community. The main reason for not ascribing said role revolves around the idea that labour migrants are here temporarily and the fact that migrants themselves have to support the idea of committing to one particular place and to take part in the social life within that particular community, which falls in line with the findings of the earlier sections highlighting integration as a point of contention.

6.2 Critical reflection

Reflecting on the research process for this master thesis, there are both strong aspects and limitations to be identified. In my opinion, there are two aspects which have contributed to the quality of this thesis: the theoretical framework and the mixed method of quantitative and qualitative research. The three different theories used in the theoretical framework, not only helped in constructing the main research- and sub-questions, but also formed the foundation of the survey design. Furthermore, the theories helped to interpret the results of the analysis. Another strength of this research was the use of a mixed method. The quantitative data gave a good insight into the attitudes of respondents and made the data useful to formulate conclusions based on statistical testing. The qualitative data from both the survey and the interviews, provided direct quotations that helped the interpretation process of the different results. Furthermore, the high number of respondents were valuable for the validity and reliability of the results.

There are also a few aspects which can be considered as limitations to this research. Originally, the aim was to conduct a multiple case study of two cases in Noord-Brabant, for generalization purposes. However, the start of the research process coincided with the covid-19 restrictions. All upcoming regional meetings organised by the province were cancelled. That made it difficult for me as a researcher to get in direct contact with a second potential case willing and capable of collaborating. This was only exasperated by lengthy period of revisions and approvals, which was in hindsight a time consuming, yet conventional occurrence that I should have accounted for. To prevent any further delays in the research process, the decision was made to revise the initial plans and to focus on one case study.

One important lesson I learned during the survey design process, and through the collaboration with various entities within the municipality, is the importance of using the right words, in order to guard the integrity of all survey questions, i.e. preserve their intended meaning. The clarity of an idea in one's mind is not necessarily an easy concept to transmit to other individuals, who, come from different backgrounds, different age groups, various educational levels and so on. Only through rigorous repetition and revisions does one arrive at statements clear enough for the majority of the intended audience. Another important lesson learned is the importance of choosing the appropriate response formats and suitable categories that are inclusive, and that do not intertwine. This might have reduced the amount of missing data and perhaps would have had an impact on the end results.

6.3 Recommendations

In this paragraph, I describe several recommendations for further research and for policy-interventions for the Province of Noord-Brabant and the municipality of Halderberge

Recommendations for further research

The focus of this study is the municipality of Halderberge, as was previously mentioned, a second case study had to be abandoned due to the extenuating circumstances. Thus, for further research, it might be interesting to expand the analysis area by including more case studies further strengthening the findings of this research. Especially when, if under varied circumstances, you still arrive at some common conclusions. The comparative approach will raise the opportunity to generalize statements for the whole province of Noord-Brabant. Comparing the different outcomes also gives an opportunity to share knowledge, and might eventually lead to improved policies. Overall, it might also be interesting to include a larger number of interviewees. The individual experiences provided useful data to interpret the survey results.

Secondly, it would be interesting to conduct a similar research, but instead of a focusing on the locals, the attention should turn to the labour migrants. To find out the attitudes and perceptions labour migrants have towards the transition space and the rural transformation they take part in. It would be interesting to explore their perspectives on the nature of contact with the locals, their opinions about the housing issues, the willingness to integrate and whether they see themselves as future revitalisers of shrinking areas. Comparing the outcomes of both researches might lead to a better understanding. A mutual understanding of both perspectives could also again lead to further improvements in policies.

The last recommendation for further research is related to when it was conducted, which was in the midst of a global pandemic. It would be interesting to explore whether this research would give equal results, when conducted during a 'normal' set of circumstances. And, to what extent has this crisis influenced the inhabitants' attitudes towards labour migrants. It remains to be seen what the outcome of such research would be. Though, a certainty is that this period had an impact on the lives of many labour migrants.

Recommendations for policymakers

For a successful long-term deployment of labour migrants in the Netherlands, few key concepts must be considered. One major point of contention that requires improvement is housing. Adequate housing, for both labour migrants and the local population, can be achieved through revamping abandoned properties, as well as initiating more inclusive accommodation projects. This leads to inclusivity, which is a direct antidote for segregation and all of its repercussions. Integration can facilitate inclusion, while separation can facilitate exclusion. Examining prior migration flows from the 1960's shows that an exclusionist approach towards migrants, in hindsight, had adverse effects far costlier to mitigate than it would have been to invest in proper integration. Integration has many facets, and requires the willingness of all parties of society, from the government level, to the individual itself, be it the local inhabitant or the labour migrant. On a policy level, there is a dire need for improved policies that tend to migrants and their surrounding communities. These policies should touch on topics, such as migrant registration, whereby this process need to be incentivized. With better registration, more targeted efforts towards integrating migrants can be initiated. Be it through, dedicated language courses, cross cultural events, adequate help lines to ensure harmony within the community. All of these efforts serve to humanize the migrants, move their perception from the notion of the other to that of a likeminded individual seeking a better life.

This successful deployment of labour migrants might play a role in mitigating the negative effects of demographic change, but it is far from being proven as such. Thus, taking other factors into account is of the utmost importance. For instance, motivating entrepreneurs to invest in automation and technology, reducing the gap between the needs of labour market and the by-product of the education sector, the revitalization of the community through improved services and more robust social facilities.

In the end, without proper intervention, the impacts of demographic change and labour migration will put the future of affected communities in jeopardy, and we all play a role in it.

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