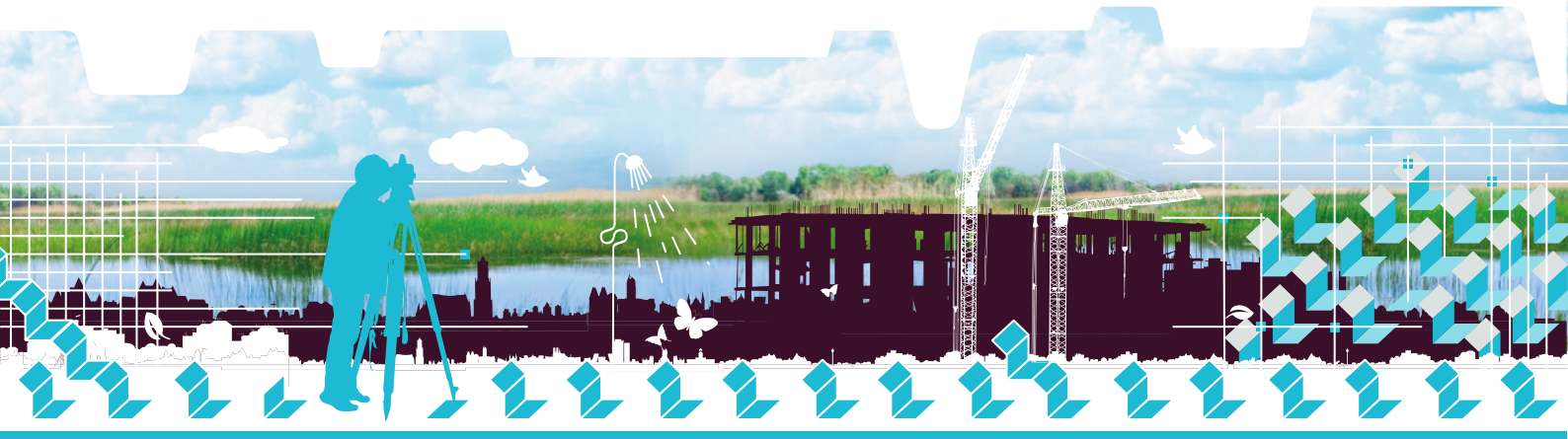
Urban Regions in the Delta



Stated residential preferences of higher educated workers in Amsterdam and Eindhoven

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HELP UvA-VU

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1. Introduction to Higher Educated Location Preferences (HELP)

1.1 Background of the HELP-project[1]

This report contains the end results of the second work package of the *Higher Educated Location Preferences (HELP)* project, which is part of NWO's *Urban Regions in the Delta* programme. The HELP project investigates the stated and the revealed residential preferences of highly educated workers, or knowledge workers. Central is understanding the conditions in urban regions that play a role in attracting and retaining higher educated workers.

Urban regions are regarded crucial for the economy, since high density facilitates the interaction between economic actors. Despite decreasing transportation costs and the rise of ICT, the role of cities has not diminished. E-mail and mobile telecommunication complement, rather than replace, face-to-face contacts. The importance of cities lies both in the field of pecuniary externalities, as was stressed in Krugman's (1991) core-periphery model, and in their possibilities for formal and informal personal contacts between workers. The current economy is characterized by a high degree of globalization and a strong emphasis on human capital. Highly educated workers play a key role in this knowledge economy and since the knowledge-intensive and often highly specialised jobs they qualify for are only available in a small number of larger cities, knowledge workers tend to be more mobile than others (Martin-Brelot et.al., 2010). Strategies to attract and retain these workers are therefore of crucial importance for cities' competitiveness (Ter Weel et al., 2010). In this respect, high value is attached to the quality of urban areas as places to work, live and recreate. Although their job is of prime importance for highly educated workers, they also tend to have clear preferences regarding other aspects of life. These concern not only the quality of the house and the accessibility of employment from its location, but also the characteristics of the neighbourhood, including safety, the identity of place and the presence of shops and recreational facilities. Highly educated workers are believed to have relatively strong preferences for urban amenities, such as a diversified supply of restaurants, theatres and concert halls. Recent research by the Netherlands Bureau for Economic Policy (De Groot et al., 2010) has shown that the market area of these amenities is typically much smaller than spatial labour market areas, which explains the much higher housing prices in neighbourhoods offering good accessibility to concentrations of consumer amenities. Such price differences indicate the importance attached to amenities, but

[1] This section largely overlaps with the introduction of the first report of the HELP project, authored by Bart Sleutjes and published as "The hard and soft side of European knowledge regions", NWO Verdus/URD, 2013

high housing prices also signal scarcity and cause workers to look for other places to live. Although the supply of land is limited in any urban area, there are many different ways in which this land can be used. Real estate is an extremely durable commodity and decisions taken now may have long-lasting consequences. The strong relationship between skills and flourishing cities underline the importance of urban land use policies that keep a clear eye on the consequences of current measures for both the present and the future inhabitants of the city. Urban amenities are also important for facilitating face-to-face contacts. Interactions between skilled and creative people are considered crucial for continued economic growth in a dynamic setting, in which today's production techniques may be outdated tomorrow (Storper & Venables, 2004) and cities regularly have to 'reinvent' themselves in order to retain their position (Bontje et al., 2011).
Therefore, the main issue to be addressed in this research project is: *"How can we keep our cities pleasant and productive places in the near and further future?"*

This general question is addressed in four subprojects:

I) A meta-analysis of the role of knowledge and skills in urban development that uses the US and European literature as a background, aims at policy relevance for the Netherlands and Europe and concentrates on four city-regions: Helsinki, Copenhagen, Amsterdam en Eindhoven. Expert knowledge from these city-regions will be used through the involvement of local stakeholders;
II) An extensive stated choice study that focuses on the preferences of highly educated workers in The Netherlands with respect to residential location, paying special attention to urban amenities. The focus on highly educated workers implies also an interest in the differences between their preferences and those of other workers. This study will be done in the city-regions of Amsterdam and Eindhoven. As an additional 'top-up' project extra attention is paid to the stated preferences of international migrants in Amsterdam and Eindhoven.
III) The development of a model structure that can be used to analyse actual choice behaviour of workers in various urban areas. The model will be applied to the Netherlands as a whole, using municipalities as the basic geographical area, and to three specific urban areas, Amsterdam, Eindhoven and Copenhagen, using smaller spatial entities.
IV) The project will culminate in the development of final versions of the models that integrate results from stated choices as well as revealed preferences studies, and their use in the analysis of a series of policy scenarios that will be formulated in discussions with local stakeholders. Dissemination of the results will be facilitated by the use of GIS and a connection with the Land Use Scanner. The ultimate product of the research can be used as a decision support system for area development.
The remainder of this report will deal with the first part of the project.

1.2 Work package 2: stated preferences of higher educated workers

With the growing importance of creative and knowledge-intensive sectors in the economy, the academic interest in those working in those sectors has also grown in recent years. In social science and economic literature it is often presupposed that for these knowledge workers, characteristics like residential preferences, lifestyle and amenity use deviate from other categories of workers. According to one of the most influential authors in this field, Richard Florida, knowledge workers would belong to a new 'creative class' that would have a strong preference for living in or close to the centres of large cities. For this 'creative class', nearness of urban amenities and a lively residential environment would be essential factors in their choice of residential location (Florida, 2002). Many urban policy-makers welcomed this message and developed policies to attract the 'creative class' to their city. Meanwhile, however, there has been substantial criticism on Florida's work and counter-evidence has been gathered both in the US and in Europe.
The results of the EU 6th Framework project 'Accommodating Creative Knowledge' (ACRE), in which 13 European city-regions have been compared, show that residential choice of knowledge workers in European city-regions is determined mostly by their personal life course (factors like place of birth, place of residence of family and friends, place of higher education) in combination with 'hard factors' like labour market and affordability. The 'soft factors' stressed by Florida like tolerance for different lifestyles, diversity of people and activities in a city and urban atmosphere appeared to be much less important (Musterd & Murie, 2010; Martin-Brelot et al., 2010). Research about residential preferences of knowledge workers has still left several questions unanswered and has also resulted in new questions we would like to address in this project. First to what extent do housing preferences differ between different groups of higher educated workers? And second, how do residential preferences of similar worker groups differ between urban regions?

While some research on 'revealed preferences' of knowledge workers has already been done as indicated above, this research project on 'stated choice' adds more in-depth insight in location preferences and the extent to which these are different from other categories of workers and residents. In our 'stated choice' survey the focus will be on asking respondents to choose between several alternatives of possible dwelling types, locations and residential milieus and ask them which alternative they would prefer if it would be available. In addition, we want to compare the stated choices of creative and high-tech workers with those of other categories of workers to find out to what extent they may have other residential preferences than those other categories, differences that may have to be taken into account in the development of housing projects in the city regions studied.

1.3 Structure of the report

The structure of the report is as follows: Chapter 2 will briefly introduce the literature and the concepts of this study. The third chapter will discuss the data sampling and methods for analysis. In the fourth chapter an extensive overview of the findings will be provided. Chapter 5 is dedicated to analyses of the effects of various variables on residential preferences. In the final chapter, conclusions are drawn and recommendations for policy are suggested.

2. Literature and concepts[2]

2.1 Residential Preferences

The key concept of this study is residential preference as it is stated by respondents. From the literature it is evident that stated preferences are not the same as revealed preferences, which more apparent in actual residential behavior (practices). Nonetheless, the discrepancies between preference and practice should not be overestimated. The housing aspirations and preferences of people are often surprisingly realistic and hence are a reasonable predictor of actual behavior (Mulder, 1996). Particularly for higher educated groups, who command relatively high volumes of economic and other resources, preference and practice tend to correspond quite strongly as the constraints that operate in –notably- housing markets are more easily overcome (Kendig, 1984). Furthermore, people tend to let their preferences coincide with their actual situation (cognitive dissonance) (Priemus, 1986) which makes practices and preference difficult to separate. In any case, this project focuses exclusively on the stated preferences of different groups of workers.

Residential preferences are a black box containing a combination of factors that may be internally coherent but are not necessarily so. Often, in residential mobility studies a distinction is made between aspects of the dwelling and its environment, and the relative situational aspects that are associated with the location (Rossi, 1955; Clark & Dieleman, 1996). The first dimension of residential preferences are the characteristics of a dwelling (size, type, price, tenure, architecture, garden, parking space, etc.). These aspects of the dwelling are often related to, but are not the same as, the aspects of direct environment (the neighbourhood) and broader regional context of the environment of the dwelling. Large semi-detached or row houses with a garden for instance are much more common in suburban environments than in inner-city areas. Aspects of the neighbourhood may include amenities such as schools, green areas, shopping facilities, but may also concern the social composition of the neighbourhood and (perceptions) of public safety. The locational dimensions of residential choice are again closely related to the other two dimensions but are distinct in the sense that they concern the relative distance to work, amenities, social networks and the like. The relative location or accessibility is thus highly contingent on access to different modes of transportation.

[2] A more extensive literature review of the creative class and its residential preferences can be found in the first report of this project by Bart Sleutjes "The hard and soft side of European knowledge regions", NWO Verdus/URD, 2013.

2.2 Residential orientation of the creative class

Since Florida (2002) launched his ideas about the creative class the residential preferences of 'creative' and 'knowledge' workers have been intensively debated and researched. Within this debate two dimensions of residential preferences are put central: what is referred to as 'classical' or 'hard' factors and what has become known as 'soft factors'. Florida (2002, 2005), and scholars and policy makers that follow his ideas, have stressed the increasing importance of these soft factors, such as amenities 'tolerance' and 'atmosphere'. In most of the recent empirical work, however, many scholars have argued for the continued importance of hard factors such as work, life stage and residential background for the residential preferences and decisions of creative workers. The remainder of this chapter will introduce the variegated literature on this issue and structure it according to the different dimensions of residential preferences.

Soft factors: Amenities and Atmosphere

In the literature about the residential preferences of the creative class, a strong focus lies on the aspects of the city and the amenities of the neighbourhood. It proposes to see residential mobility as driven by the outcome of competition between urban regions for talent. The urban region that fosters talent by offering a high quality of life has the greatest potential to attract the creative workers that have a specific preference for diverse, tolerant and urban environments (Glaeser, 2004; Clark et.al., 2002). This literature concentrates around the notion of interregional or international residential mobility. Particularly the 'the war for talent literature' (Michaels et.al., 2001; Florida 2005) presents members of the creative class as highly mobile and in search for the most attractive environment. In the 'Consumer City' approach (Glaeser et. al., 2001; Glaeser, 2004) workers are attracted by two categories of amenities: climatological amenities (used to explain the success of cities in American Sunbelt states) and amenities related to consumption. The latter category, inherently more sensitive to policy than the former, revolves around the consumption of cultural amenities such as concerts, theatre and restaurants. The much akin 'city as entertainment machine' literature, offers a somewhat broader perspective, but also regards amenities to be principle drivers for economic growth. Shopping centres, nature areas, outdoor activities, but also the level of public services are also included in the wide range of facilities that an urban region can boast to attract and retain the desired workers (Clark et.al.,2002; Yigitcanlar et.al., 2007). As Servillo and colleagues (2011) argued, however, attractiveness is a complex set of characteristics that are different for specific groups of workers. The emphasis on cultural amenities and consumption may work for some, but it not a generic principle. Furthermore, as argued by Storper and Manville (2006), amenities and attractiveness may correlate but this does not mean that amenities explain urban success. In fact, the very presence of specific populations may explain the emergence of specific amenities rather than the other way around. Storper and Manville argue similarly for the factor 'tolerance' and 'diversity: they may be associated with specific urban regions, but diversity and tolerance may as well be the product of economic success and immigration rather than explanations for it. Nonetheless, Storper and other critics of the amenity/atmosphere approach do believe in the idea of clustering or people and economic activities, which are at least partly related to what it commonly referred to as soft factors. Also, they endorse the idea of interregional and international competition. Empirical evidence from European studies however suggests that creative workers are not as mobile as is often suggested and that residential mobility is to a much wider degree determined by classical factors.

Classic factors: residential background, job opportunities and social networks

In one of the most extensive empirical studies of residential preferences of creative and knowledge workers, the Accommodating Creative Knowledge (ACRE) project, it was demonstrated that residential practices of members of the 'creative class' are still primarily determined by 'classic' factors such as life course, education, availability of jobs, and social networks (i.e. partner; family) (Bontje et al, 2008; Musterd & Murie, 2010). The ACRE-project concluded that people generally do not move to places simply because of their available soft conditions. Although some soft factors such as aesthetically attractive housing (Marlet & Van Woerkom, 2007) seem to play a role, people mainly move because of the availability of suitable jobs or because of personal trajectories and networks (Musterd & Murie, 2010). Other studies have also demonstrated that, contrary to Florida's ideas, jobs do not follow people but people move where jobs are available (Storper & Scott, 2009; Hansen & Niedomysl, 2009).

Furthermore, even though job opportunities are an important factor shaping residential mobility, the majority of people wish to have their future residence in the same residential environment as the one in which they are residing at present (Muhammad et al., 2007). This is strongly related to social networks, which have been identified as a key factor shaping residential trajectories (Grabher, 2004; Martin-Brelot et.al., 2010). The presence of family members or friends, following a partner, or having been born or having studied in a certain region are important reasons for choosing a place of residence (Brown & Meczynski, 2009; Musterd & Murie, 2010; Stambøl, 2013 Lawton et al., 2013). Also in the Netherlands many graduates settle in the same region where their higher education institute was located, and relatively many graduates move back to familiar home regions (Venhorst, 2013). Residential trajectories are thus largely shaped by family and study background. Obviously, international migration is more strongly related to employment opportunities or family formation (see Musterd & Murie, 2010 and the forthcoming third report in this series).

Although some studies agree that soft factors play a relevant role for students and young people, employment opportunities are more important with age (Houston et al. 2008 Hansen & Niedomysl 2009). Residential mobility is known to be also to a very large extent determined by the life course (Rossi, 1955; Clark et al., 1984; Mulder, 2006). In the study of Lawton and colleagues (2013) the importance of life course for residential orientation of the creative class is also noted. In spite of some recent trends of 'family gentrification' (Karsten, 2003, Boterman et al, 2010) households with young children are still primarily oriented towards suburban environments. In this respect members of the creative class are not found to be very different (Lawton et.al., 2013; Beckers & Boschman, 2013).

2.3 Differences within the creative class

From its conception the idea of the creative class has been criticised for being too broad and too imprecise. Apart from differences in residential preferences within the creative class due to classic factors such as the life course, several studies argue that the creative class is internally differentiated with respect to residential, preferences. The idea that there is one social group that has a common residential orientation (urban and pro-diversity etc.) has been severely criticised for its theoretical and conceptual weakness. Several scholars have therefore tried to re-categorise the

creative class in order to account for the differences within it (Frenkel et.al., 2013a). Krätke (2010) for instance argued that the creative class should be disaggregated in order to better understand the role of various worker groups in the urban economy, thereby 'cutting loose' the what he calls "dealer class".
Several other empirical studies on (creative) knowledge workers in European city regions, outlined large differences in residential preferences between different sub-groups of the creative class (Servillo et.al., 2010). They conclude that not all knowledge workers prefer metropolitan areas. Different types of regions can be attractive for different types of knowledge workers, based on their lifestyle. In their empirical study on knowledge workers in Scandinavian countries, Andersen and colleagues (2010) concluded that metropolitan areas are not more or less attractive than suburban areas but rather attract different groups of knowledge workers. This confirms earlier work by Kotkin (2000) who argued that high-tech workers in Silicon Valley do not have an urban, but rather a suburban orientation and concentrate in spacious green environments that he labelled 'Nerdistans'. Also in Dutch studies (Van Oort et al 2003) ICT workers are identified as relatively suburban in their orientation. In studies about the location quotients of different groups of workers in the Amsterdam region Musterd (2006) and together with Arnoldus (2002) clearly showed that educational background and occupation are important predictors of residential location. These studies showed that particularly graduates in humanities, arts and social studies are urban in their orientation, while people with a technical or science training lived more in suburban locations. Workers in finance and ICT are found to be least urban, while architects are the most quintessentially urban. Some of these findings are also confirmed in other contexts (Borén & Young, 2013; Currid, 2009; Ley, 2003; Markusen, 2006). It is thus evident that *the* creative class does not exist and that the differentiation within it is so large that it is difficult to find evidence of any specific residential orientation.

2.4 Residential orientation of the new middle class

The urban orientation of specific higher educated workers, or creative class, has been approached differently in the literature that has focussed on the rise of a new middle class (i.e. Ley, 1996; Butler, 1997; Bridge, 2006). In this literature, which primarily focuses on the phenomenon of gentrification, it is argued that the new middle class differs from the old middle class in that the former tends to work and live in central cities, while the latter has been associated with the suburbs (May, 1996; Bridge, 1995). Although some of this work resonates in studies on the creative class (Peck 2005, 2012; Pratt, 2008; Krätke 2010), the central role of class, social reproduction and the reclaiming of urban space by middle classes does not feature prominently in the main body of literature on the creative class.
It is however clear that changes in the structure of the economy i.e. deindustrialisation and the transition to a service-based economy as well as the professionalization of the work force have contributed to the emergence of a new urban geography of class (Hamnett, 1994). Many of the scholars of gentrification have made an explicit link between employment and residential orientation. The relationship between the urban environment and specific forms of employment is twofold: specific economic activities have become more urban. Many of the workers in these sectors want to live close to work and hence increasingly settle in (inner) cities (Kloosterman, 2004). The other dimension of this relationship is that people working in specific sectors of work, notably new services such as advertisement, design and finance are part of an emerging new middle class that does not display the same type of taste and residential preferences as the 'traditional' middle

class (Butler 1997). These scholars, in response to structuralist neo-marxist explanations for gentrification (Smith 1979), argued that the transformation of urban space was driven by a newly emerging housing demand for inner-city living associated with a specific class fraction within the broader middle classes.
A range of studies (eg Zukin, 1987; Ley, 2003; Hamnett et.al, 2008) have demonstrated the transformation of specific urban neighbourhoods, gentrification, are indeed strongly associated with a changing occupational profile of these areas. In line with 'stage models' of gentrification (see Clark, 1979 and Gale, 1980) different social groups, identified via their work, are attracted to specific stages of the process in which a former low-status neighbourhood is transformed into higher status space. Despite the simplicity of this model, it holds some important conclusions for the relationship between the class and residential orientation. In much of the work on gentrification particularly the role of cultural or symbolic capital is emphasised (Savage et. al.,2005, Bridge 2001, 2006). The meaning of living at specific locations in specific types of housing is an important source of symbolic capital (Bridge, 2006), which plays a crucial part in distinction practices of the new middle classes (Bourdieu, 1984). These processes of distinction (although often middle class households express highly ambiguous feelings to diversity, see Blokland & Van Eijk, 2010) are often associated with the celebration of diversity and tolerance (compare: Florida 2002). Although cultural capital is an important element of the residential orientation of specific sections ('fractions' or 'habitus') of the middle class (Butler & Robson, 2003), their residential preferences are also strongly linked to other aspects of the everyday practices of the middle class. Butler and Robson (2003) argue that for explaining the residential practices of the middle classes one has to understand the practices in the fields of consumption, education, housing and employment. The trade-offs that are made between these fields depend on the resources (capital) of the household as well as their household composition and also arguably their residential background and social networks (Boterman, 2013). When we try to understand why specific workers, the 'creative' or 'knowledge' workers, have the residential preferences they have, it is important to have an integral approach in which the household composition, their resources, taste and other elements are included simultaneously.

2.5 Worker groups in this study

In this study we focus on two different employment groups: higher educated (middle class) professionals working in technical sectors and in creative businesses. Based on the literature on the creative class and the new middle class, it is expected that this specific focus will provide more detailed insight into the variegated residential preferences within the creative, or middle classes. By assuming a class-based perspective on creative and knowledge workers and by analysing various aspects of residential preferences, this study aims to provide a more nuanced understanding of the residential orientations of the 'creative class'. We expect that creative workers have a more urban orientation compared to technical workers, but also that life course and regional differences are at least equally important. The next chapter presents the research design and data collection of this study.

3. Data and Methods

3.1 Research Design

The research design of this study is specifically geared to uncover to what extent differences exists between the stated preferences of workers in high tech and creative industries, and whether they deviate from other higher educated workers. In order to test whether significant differences exist, this research was designed to enable three main comparisons:

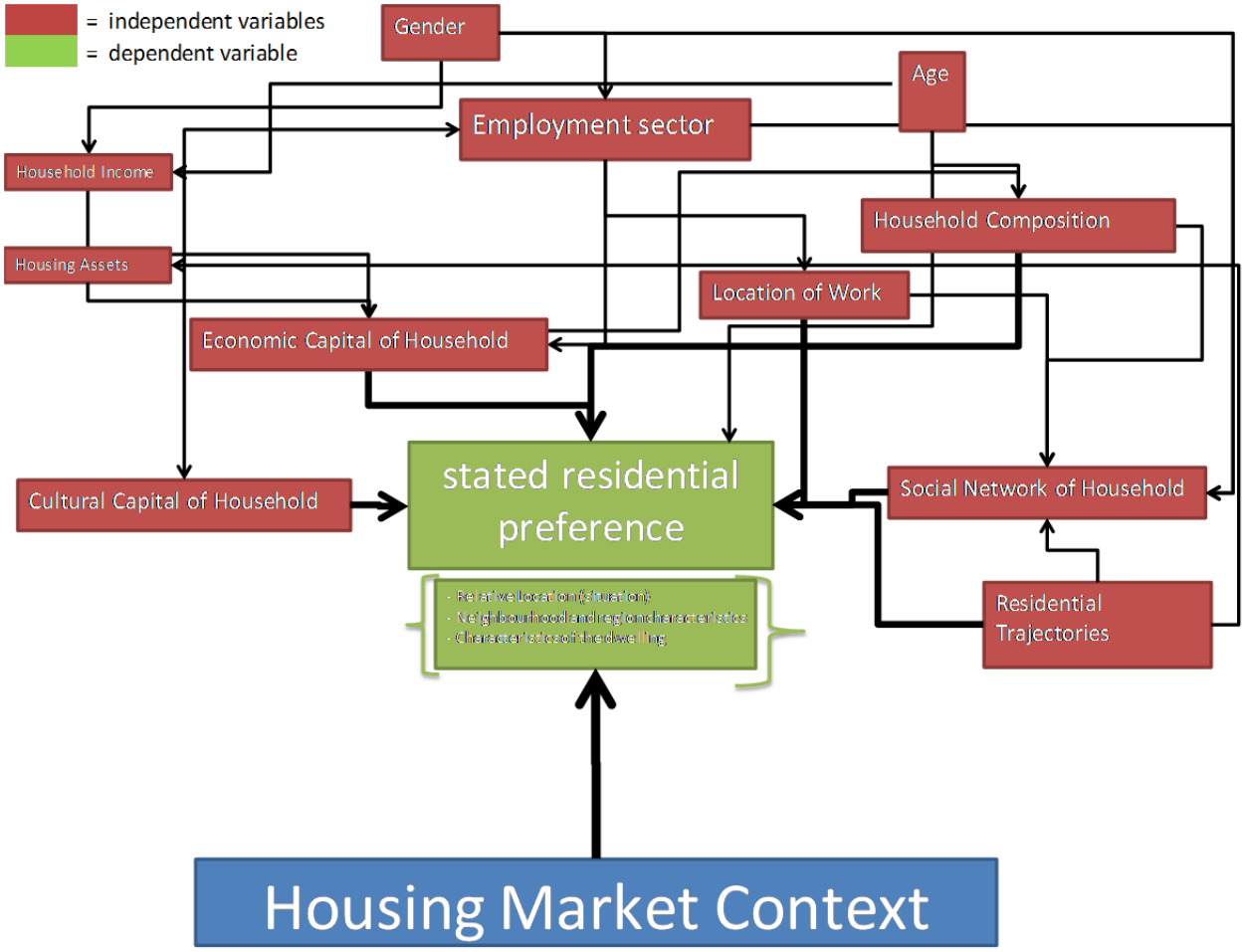
1) Technical versus creative workers
2) Technical workers versus other higher educated workers
3) Creative workers versus other higher educated workers

These comparisons between different groups of workers are enhanced by selecting these workers in two different urban contexts: the metropolitan region of Amsterdam and the urban region of Eindhoven. The three main comparisons could thus be further differentiated between the two contexts. This culminates into comparative sub-studies that will be addressed in this report answering the following questions:

1) To what extent do housing preferences differ between technical workers , creative workers and other higher educated workers ?
2) To what extent do housing preferences differ between creative workers and technical workers in Amsterdam and Eindhoven?

The main method for addressing these questions is a large survey utilising an extensive online questionnaire that was specifically designed for this research. The questionnaire contains a wide range of questions on personal background (income, level of education, household composition etc.) and housing preferences. The latter group of questions provides information about various aspects of the dwelling and the residential environment. This includes for instance information about amenities in the region and in the neighbourhood; type, size, price, tenure and architecture of the home; but also moving intentions, motivations and satisfaction with environment and home. The figure below illustrates the conceptual model underlying this questionnaire:

Figure 3.1: Conceptual model



3.2 Case selection and sample

Research Context

The Amsterdam metropolitan area (2.3 million inhabitants) is the largest urban region of the Netherlands; the city of Amsterdam (810,000 inhabitants) is the central urban core of the region. Although high-tech manufacturing and research and development are represented in the regional economy most people are employed in private and public service jobs. Financial services and creative industries (advertisement, gaming, architects) are among the key private services of the region (Kloosterman, 2004; Bontje & Musterd, 2008).
Eindhoven is the fifth city in the Netherlands (220,000) situated in a larger metropolitan region that comprises most of the southeast of the province of Brabant (750,000 inhabitants). Contrary to Amsterdam, Eindhoven has an economy that is strongly characterised by high-tech manufacturing. The Technical University Eindhoven and local businesses are highly integrated and collaborate closely in various institutional bodies such as "Brainport Eindhoven". The area has a high share of higher educated workers and was nominated as "the world's smartest region" in 2013.

The two urban contexts were selected based on the fact that Amsterdam and Eindhoven are two of the main regions for technical innovation and creative industries in the Netherlands. Both city regions play a crucial role in the Dutch economy and both depend for a significant part on international migrants. Particularly Eindhoven hosts a large cluster of internationally operating high-tech industries, whereas Amsterdam is one of the leading centres for creative industries in Europe.
Within the two cities technical workers were selected from two large companies: In the Eindhoven region, ASML Lithography, a corporation specialised in the production of machinery for the manufacturing of computer chips and in Amsterdam the Technology Centre Amsterdam of Shell, the globally operating oil and natural gas corporation. Both companies employ high-skilled workers that are mostly educated in technical studies and actively recruit employees internationally.
The creative workers that were selected are primarily employed in the advertising industry. Particularly Amsterdam is a global hub for this type of work (see for instance Röling, 2011). In Amsterdam approximately 5000 companies are registered in advertising. Since advertising is also the largest creative sector in Eindhoven region (about 900 companies), this was a suitable group to compare between the two cities.
We aimed to sample workers in two sectors and a reference group that were employed in two city regions. The respondents thus worked in the Eindhoven or Amsterdam region, but could live anywhere. The planned sample is depicted in Table 3.1.

Figure 3.2 The metropolitan area of Amsterdam (source: RSA)

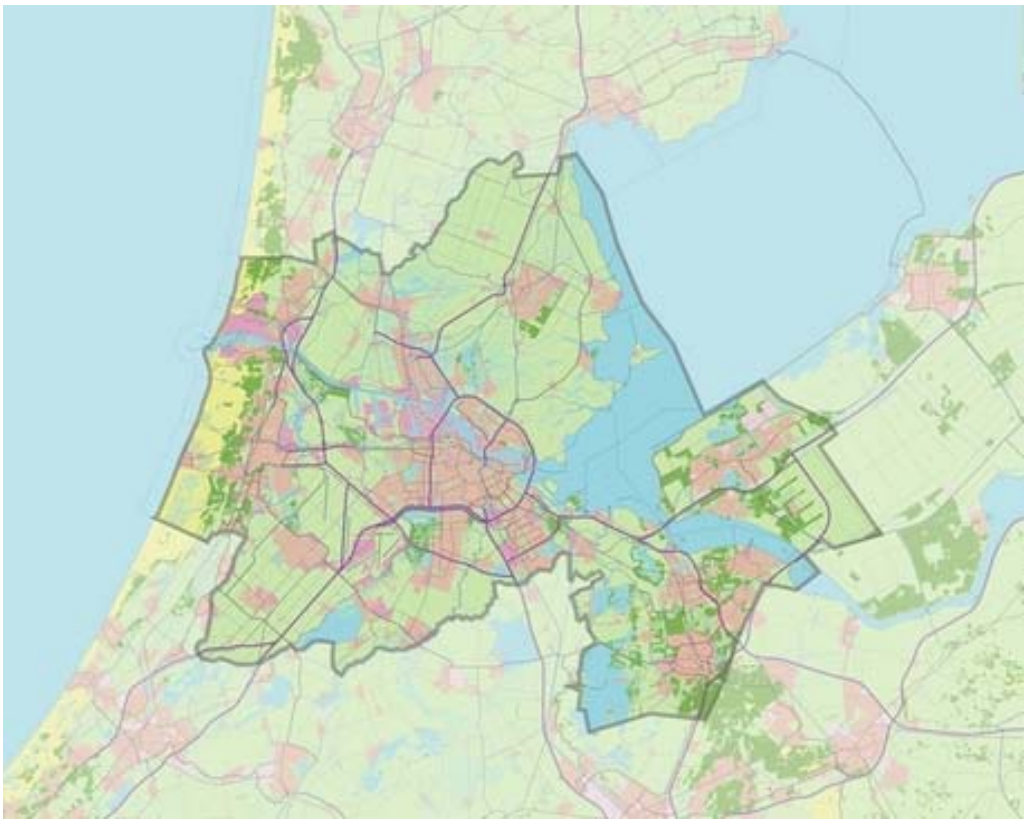


Figure 3.3 The Metropolitan area of Eindhoven (source: SRE)

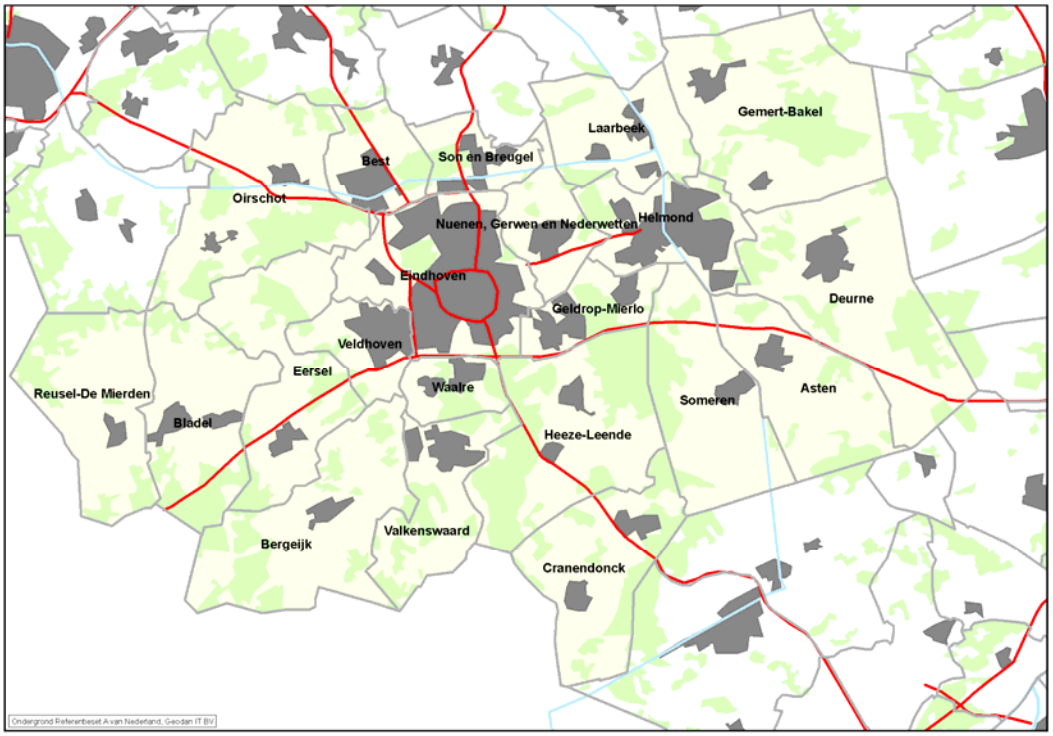


Table 3.1 Intended sample

	Amsterdam	Eindhoven	Total
Technical workers	100	100	200
Creative workers	100	100	200
Higher educated workers	200	200	400
Higher educated expats	200	200	400
Total	**600**	**600**	**1200**

The sampling of these groups was in some respects remarkably successful, while some groups proved difficult. Particularly the advertisement employees were difficult to reach. In order to recruit a sufficient number of respondents from creative industries the scope was broadened as to include also designers and architecture firms.
The Shell employees were sampled with consent of the company on site in Amsterdam. Pollsters from the Research and Statistics of the City of Amsterdam handed out leaflets to employees containing directions to a webpage on which the questionnaire could be completed digitally. Employees of advertisement companies in Amsterdam and Eindhoven were approached similarly.
ASML employees were approached via internal communications of ASML. All higher educated employees received an internal company email containing a link to the web-based survey.
Finally, the control groups were sampled via the resident panels of the Research and Statistics departments of the municipalities of Amsterdam and Eindhoven. For the control group in Amsterdam region inhabitants of the suburban municipality of Almere were also sampled via the bewonerspanel Almere. In Eindhoven no additional sample was made for suburban municipalities.
The participants were awarded with the possibility of winning one of the ten dinner checks that were raffled among them. Eventually, a much larger sample than anticipated was drawn (Table 3.2).

Table 3.2 Realised sample

	Amsterdam	Eindhoven	Total
Technical workers	Shell: 163	ASML: 537	700
Creative workers	Advertisement: 98	Advertisement and other creative industries: 80	178
Higher educated workers	Bewonerspanel Amsterdam: 448 Bewonerspanel Almere: 289	Bewonerspanel Eindhoven: 1093	1830
Higher educated expats	Expat centre: 59	Expat panel: 35	94
Total	**1057**	**1745**	**2802**

3.3 Methods of Analysis

The complete sample was cleared of false entries and a selection was made of workers that had completed at least a higher vocational study and were in the employment age (below 67 and above 17). Furthermore, all respondents were required to have paid work in the Eindhoven or Amsterdam region. A second step entailed an extensive recoding of variables; some variables had to be recoded from dummies into one variable, others had to be converted into dummies for regression analysis. For the next chapter of this report a wide range of descriptives was prepared that provide insight into the composition of the sample and already address the research questions preliminary. These tables serve as a starting point for the linear and logistic regression analyses that are carried out in Chapter 5. This analysis chapter will test 15 different models that all cover various aspects of the residential preferences of higher educated workers: The models address four main categories: aspects of the home; neighbourhood amenities, locational aspects and finally the residential milieu. The last category will draw on the ranking of various images and locations of different residential environments (see section 4.4). Also the predictors for the main reasons for moving to the urban regions are modelled. The main independent variables that are tested are study background and employment sector.

4. Findings

4.1 Description of the sampled respondents

Residential Location

Most of the workers in the two city regions reside in their own region (see Table 4.1). Of the technical workers about a third lives in the central core, another third lives in the region and the rest lives outside of the region. The differences between technical workers in the two cities are not very large, but in Eindhoven the share that lives outside of the region is somewhat larger, albeit most of these respondent live in the same province (Brabant).
Of the workers that were sampled via the advertising agencies and other creative industries , a much larger share lives in the urban core. Both in Amsterdam and Eindhoven creative workers seem to live more in urban areas than in suburban and rural parts of the wider region. In both Eindhoven and Amsterdam about 80% live in the central city.
The foreign workers have a similar orientation. In the two city regions a large majority (88%) lives in the municipality of Amsterdam and Eindhoven. Only a small group lives in the suburban periphery. The participants in the three resident panels 'bewonerspanels' live inside of their own municipality. Only some respondents from the Amsterdam panel live in the wider region. Of the members of the Eindhoven panel, 99% lives in the city of Eindhoven.

Table 4.1 residential municipality of respondents by sample group

	Amsterdam	Amsterdam Region	Eindhoven	Eindhoven Region	Other	Total	*n*
Technical Amsterdam	34%	33%	0%	2%	32%	100%	*127*
Technical Eindhoven	0%	2%	38%	33%	27%	100%	*447*
Creative Amsterdam	81%	10%	0%	1%	9%	100%	*82*
Creative Eindhoven	0%	0%	78%	18%	4%	100%	*68*
Expats Amsterdam	88%	6%	0%	0%	6%	100%	*47*
Expats Eindhoven	0%	0%	88%	6%	6%	100%	*16*
Bewonerspanel Amsterdam	92%	7%	0%	0%	1%	100%	*403*
Bewonerspanel Eindhoven	0%	0%	99%	1%	0%	100%	*872*
Bewonerspanel Almere	0%	99%	0%	0%	0%	100%	*225*
Total	23%	14%	48%	7%	8%	100%	*2289*

Demographic characteristics

The respondents were selected based on their employment sector. The sample may therefore contain a bias towards men. Table 4.2 shows the gender distribution per response group. This bias clearly appears from the Table: technical workers are overwhelmingly male, while creative workers are more often female. The resident panels also skew this way: in Eindhoven and Almere men are overrepresented. In the Amsterdam panel, however, women are overrepresented.

Table 4.2 Gender by sample group

	Male	Female	no answer	Total	*n*
Technical Amsterdam	70%	30%	0%	100%	*111*
Technical Eindhoven	80%	20%	0%	100%	*380*
Creative Amsterdam	56%	43%	1%	100%	*70*
Creative Eindhoven	61%	35%	4%	100%	*47*
Expats Amsterdam	41%	59%	1%	100%	*44*
Expats Eindhoven	59%	41%	0%	100%	*17*
Bewonerspanel Amsterdam	42%	57%	1%	100%	*369*
Bewonerspanel Eindhoven	60%	40%	0%	100%	*778*
Bewonerspanel Almere	60%	39%	1%	100%	*180*
Total	60%	39%	1%	100%	*2006*

The sample is rather equally distributed in terms of household composition (Table 4.3). About a third is a couple without children, another third is a couple with children and about 22% is a single person household. A small group of single parents and other arrangements complete the picture. Both technical and creative workers across the urban contexts have a large majority of couple households, with and without children. The share of families with children is higher among the technical workers, while the share of singles is similar between the groups.
The resident panels have a somewhat different profile: In the Amsterdam panel singles are much more represented, while in the Almere panel families with children dominate and singles are clearly underrepresented. Eindhoven occupies an intermediate position.

Table 4.3 household composition by sample group

	Single	Couple	Couple with children	Single parent family	Other	Total	*n*
Technical Amsterdam	23%	31%	39%	3%	5%	100%	*111*
Technical Eindhoven	16%	35%	39%	2%	7%	100%	*380*
Creative Amsterdam	21%	43%	26%	3%	7%	100%	*70*
Creative Eindhoven	18%	40%	25%	5%	12%	100%	*57*
Expats Amsterdam	21%	61%	16%	0%	2%	100%	*44*
Expats Eindhoven	24%	41%	18%	0%	18%	100%	*17*
Bewonerspanel Amsterdam	32%	30%	32%	4%	2%	100%	*368*
Bewonerspanel Eindhoven	21%	37%	36%	4%	2%	100%	*778*
Bewonerspanel Almere	12%	37%	44%	4%	3%	100%	*179*
Total	22%	36%	35%	3%	4%	100%	*2004*

Another important dimension to describe the sample by is country of birth. We also included nationality in the questionnaire but the variable is contaminated[3]. Country is birth is therefore used. Obviously all respondents from the expat centers are born abroad and most of those from the resident panels are born in the Netherlands. Among the workers groups the technical workers are most international. Of all Shell and ASML employees 29% is born abroad. The countries most frequently mentioned are: Belgium, Germany and the United States.

Table 4.4 Country of birth by sample group

	Netherlands	Abroad	Total	n
Technical Amsterdam	71%	29%	100%	*127*
Technical Eindhoven	72%	29%	100%	*453*
Creative Amsterdam	84%	16%	100%	*84*
Creative Eindhoven	93%	7%	100%	*68*
Expats Amsterdam	0%	100%	100%	*51*
Expats Eindhoven	0%	100%	100%	*17*
Bewonerspanel Amsterdam	80%	20%	100%	*400*
Bewonerspanel Eindhoven	92%	8%	100%	*870*
Bewonerspanel Almere	86%	14%	100%	*217*
Total	81%	19%	100%	*2287*

Socio-economic characteristics

The database contains detailed information about the income and educational position of the respondents. Although all selected respondents have at least completed higher vocational education variation exists between the various samples groups (Table 4.5).
Of all respondents the majority has received either a bachelor or a master degree. Remarkably among Shell employees a doctorate degree is rather common: one out of four respondents holds a PhD degree. Also 14% of ASML respondents hold a doctoral degree. Generally technical workers are higher educated than workers in the creative sector, where a bachelor degree is the highest level of education attainment for a large majority (about 60%). Expats are generally higher educated than the respondents from the resident panels. On average the share of respondents with a master degree or higher is about the same size as the group of respondents that completed a vocational training or holds a bachelor.
Most of the respondents have a household income that varies between 50,000 and 100,000 euros (Table 4.6). On average the income of technical workers is higher than that of creative workers. particularly among the technical workers in Amsterdam, households oftentimes earn more than 100,000 annually. Lower incomes are much more common among creative workers and the resident panels of Eindhoven and Amsterdam. It seems that salaries of Amsterdam-based workers are generally higher than in the Eindhoven region.

[3] The first option one could select was "Afghanistan". This answer was given in about 20% of the cases, which does not correspond with reality. This variable was therefore considered unreliable.

Table 4.5 Level of education by sample group

	Higher Vocational	Bachelor	Master	PhD	Total	n
Technical Amsterdam	8%	34%	32%	24%	100%	*110*
Technical Eindhoven	7%	30%	49%	14%	100%	*374*
Creative Amsterdam	1%	65%	31%	1%	100%	*68*
Creative Eindhoven	13%	63%	22%	0%	100%	*53*
Expats Amsterdam	0%	23%	73%	5%	100%	*44*
Expats Eindhoven	0%	12%	64%	25%	100%	*17*
Bewonerspanel Amsterdam	1%	42%	54%	3%	100%	*365*
Bewonerspanel Eindhoven	4%	56%	34%	5%	100%	*765*
Bewonerspanel Almere	4%	61%	33%	2%	100%	*178*
Total	4%	47%	41%	7%	100%	*1974*

Table 4.6 gross annual household income in classes by sample group

	Less than 12.000 euros	12.000 to 35.000 euros	35.000 to 50.000 euros	50.000 to 70.000 euros	70.000 to 100.000 euros	100.000 to 150.000 euros	150.000 to 200.000 euros	More than 200.000 euros	Total	n
Technical Amsterdam	2%	6%	5%	13%	22%	35%	10%	6%	100%	*99*
Technical Eindhoven	0%	2%	17%	31%	30%	16%	2%	2%	100%	*327*
Creative Amsterdam	5%	23%	9%	29%	23%	11%	0%	0%	100%	*56*
Creative Eindhoven	0%	31%	21%	31%	7%	10%	0%	0%	100%	*42*
Expats Amsterdam	3%	10%	15%	31%	31%	5%	3%	3%	100%	*39*
Expats Eindhoven	18%	29%	18%	18%	12%	6%	0%	0%	100%	*17*
Bewonerspanel Amsterdam	1%	16%	20%	20%	21%	16%	4%	2%	100%	*322*
Bewonerspanel Eindhoven	2%	14%	20%	21%	25%	14%	3%	1%	100%	*648*
Bewonerspanel Almere	0%	6%	19%	28%	24%	15%	6%	1%	100%	*143*
Total	2%	12%	18%	24%	24%	16%	4%	2%	100%	*1693*

Aspects of housing

Despite the relatively high share of social rent in the urban regions, homeownership is very common among the respondents. A large majority lives in a home that they own (Table 4.7). Particularly among the members of the resident panel of Almere and Eindhoven a very large group is homeowner. In Amsterdam the share of homeowners is lower, but considering the structure of the housing market in the city (28% owner-occupied) it is still very high. Between technical and creative workers differences are not very large. Creative workers in Eindhoven are more often homeowners than technical workers, which may be related to age and the larger share of foreign workers among high-tech workers. Foreign workers tend to live primarily in private rental dwellings, and in Eindhoven also in social rent.
Generally, technical workers in Amsterdam live in larger homes than creative workers from the city region (Table 4.8). In Eindhoven the differences are much smaller; both creative and technical workers live on average in relatively large homes. This difference between Eindhoven and Amsterdam is also reflected in the resident panels. In Amsterdam the share of respondents that live in smaller, one to three room apartments is much higher than among the Eindhoven resident panel. Also Almere panel members rarely live in a small home. This is most probably related to the structure of the regional housing markets. Respondents from the expat panels in both cities live in remarkably small homes.

Table 4.7 Tenure status by sample group

	Owner occupied	Private rental	Social rental	Other	Total	n
Technical Amsterdam	61%	27%	13%	0%	100%	*120*
Technical Eindhoven	65%	18%	15%	2%	100%	*433*
Creative Amsterdam	58%	21%	19%	3%	100%	*78*
Creative Eindhoven	77%	9%	13%	1%	100%	*64*
Expats Amsterdam	29%	58%	8%	4%	100%	*48*
Expats Eindhoven	6%	59%	35%	0%	100%	*17*
Bewonerspanel Amsterdam	62%	11%	25%	1%	100%	*391*
Bewonerspanel Eindhoven	80%	5%	15%	0%	100%	*842*
Bewonerspanel Almere	93%	2%	5%	1%	100%	*207*
Total	72%	12%	16%	1%	100%	*2200*

Table 4.8 Total number of rooms per sample group

	1 room	2 rooms	3 rooms	4 rooms	5+ rooms	Total	n
Technical Amsterdam	3%	13%	23%	14%	47%	100%	*120*
Technical Eindhoven	1%	9%	17%	21%	52%	100%	*424*
Creative Amsterdam	3%	18%	38%	14%	27%	100%	*77*
Creative Eindhoven	3%	7%	15%	21%	46%	100%	*62*
Expats Amsterdam	2%	39%	45%	14%	0%	100%	*49*
Expats Eindhoven	6%	47%	23%	12%	12%	100%	*17*
Bewonerspanel Amsterdam	1%	13%	33%	26%	17%	100%	*388*
Bewonerspanel Eindhoven	1%	3%	14%	19%	63%	100%	*834*
Bewonerspanel Almere	0%	0%	12%	26%	62%	100%	*212*
Total	1%	8%	20%	21%	51%	100%	*2173*

Life style characteristics

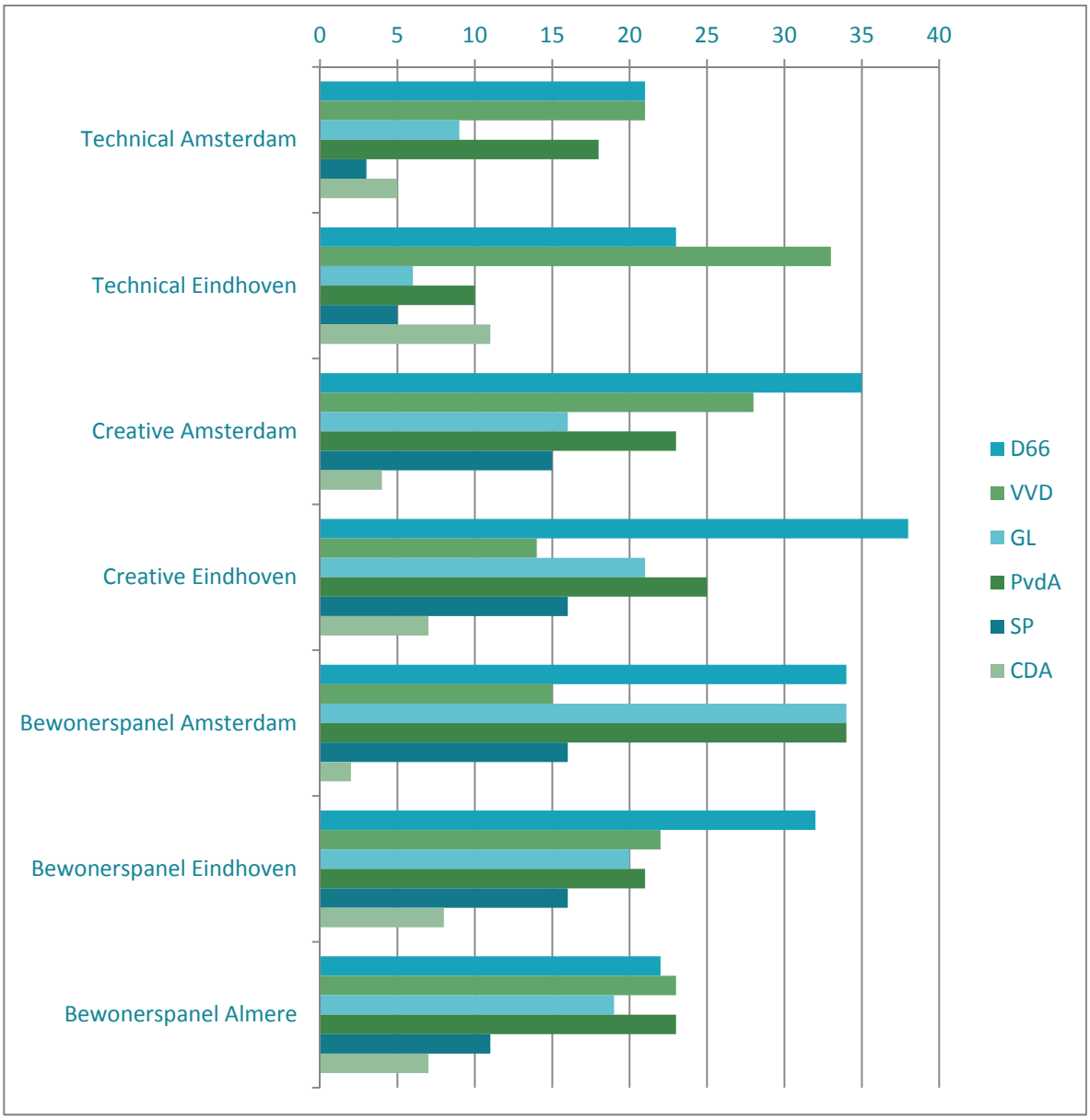
In this study a range of life style questions were included. To assess the symbolic dimensions of consumption, respondents were asked about among other things their political preferences, their transport use, car ownership, newspaper subscriptions. In this section only two aspects are reported. In the next section in which the differences between various groups of workers are described, additional variables will be discussed.

Table 4.9 shows car ownership and access to a car for the different response groups. The differences in the possession of one or multiple cars is quite small between the groups. About half of the respondents owns one car; about 25% owns sever al. This number is higher in Eindhoven and lower in Amsterdam. Also among the members of the resident panel in Amsterdam it is more common not to own or dispose of a car than in Eindhoven or Almere. Generally it can be concluded that car-ownership is very common among this sample. Generally, expats seem to refrain from using a car.

Table 4.9 Car ownership by sample group

	One car	Multiple cars	Lease car	Shared car	Car at disposal	No car	Total	n
Technical Amsterdam	52%	14%	0%	5%	7%	22%	100%	*109*
Technical Eindhoven	50%	37%	0%	0%	2%	10%	100%	*367*
Creative Amsterdam	51%	9%	4%	6%	7%	23%	100%	*69*
Creative Eindhoven	48%	21%	4%	2%	9%	16%	100%	*56*
Expats Amsterdam	23%	0%	5%	16%	9%	47%	100%	*43*
Expats Eindhoven	6%	12%	0%	0%	12%	71%	100%	*17*
Bewonerspanel Amsterdam	51%	6%	4%	9%	4%	25%	100%	*362*
Bewonerspanel Eindhoven	59%	27%	3%	1%	2%	7%	100%	*766*
Bewonerspanel Almere	58%	26%	8%	1%	0%	6%	100%	*171*
Total	54%	23%	3%	3%	3%	14%	100%	*1960*

Figure 4.1 Political preferences by sample group (valid n=1753)



In Figure 4.1 the political preferences of the respondents of the different sample groups are displayed. Since the respondents could indicate more than one political party the percentages do not add up to 100%. It appears that among technical workers in both Amsterdam and Eindhoven have a liberal[4] political orientation. Creative workers in Amsterdam also indicate liberal parties, but have a slightly stronger penchant towards left wing parties. This is even more so the case for creative workers in Eindhoven, while they are less likely to include the VVD among their preferred political parties.

[4] Liberal is here used in a 'European' way, as opposed to the common use in the US where it connotes a 'left' or 'progressive' political attitude

The resident panels are clearly more left-leaning. Particularly in Amsterdam Groen Links and the labour party, PvdA, are much more often mentioned as preferred party than among the other resident groups. Residents of Almere have a less clear political orientation. Conservative, liberal and left wing parties all are mentioned by about 20% of all respondents. The expats are excluded from the table as they often do/cannot not participate in Dutch elections.

4.2 From sample group to class fractions

The remainder of this report will focus on the main comparisons of this study: residential preferences of technical and creative fractions of the professional middle classes compared to other middle class professionals; residential preferences of different middle class fractions in the Amsterdam and Eindhoven regions. All respondents were classified based on the field of study and their employment. Workers of the technical companies Shell and ASML were classified as working in the high-tech sector, workers in advertisement and design were classified as working in creative sectors. The members of the resident panel were classified manually based on an open question in which respondents had to give a job description and the employer they work for. According to their answers they were categorised into eight sectors (see Table 4.10).

Table 4.10 sectors of employment by sample group

	Technical	Creative	Public services	Health	Education	Finance /Law	Business services	Non -profit	oth-er	Total	n
Technical Amsterdam	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	109
Technical Eindhoven	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	361
Creative Amsterdam	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	66
Creative Eindhoven	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%	50
Expats Amsterdam	16%	23%	0%	3%	7%	10%	29%	7%	3%	100%	31
Expats Eindhoven	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	13
Bewonerspanel Amsterdam	5%	15%	20%	15%	13%	6%	13%	5%	6%	100%	315
Bewonerspanel Eindhoven	34%	7%	8%	15%	15%	4%	11%	1%	5%	100%	615
Bewonerspanel Almere	17%	3%	13%	13%	22%	12%	13%	2%	5%	100%	145
Total	49%	13%	7%	8%	9%	3%	7%	1%	3%	100%	1705

As appears from the table the resident panels in Eindhoven, Amsterdam and Almere differ considerably. Among the respondents of Amsterdam 15% works for an employer in the creative sector, while only 5% works for a high-tech company. In Eindhoven many of the residents work for a technical company and only 7% works in creative industries. In Almere the share of creative

workers is also very low (3%), while 17% works for a technical business. All expats in Eindhoven work for technical companies, while the Amsterdam expats are much more varied as regards their lines of work.

Table 4.11 Field of study by sample group

	Technical /Science	Business Economy	Medical	Social	Arts	Law	Engineering Architecture	Humanities	Other	Total	n
Technical Amsterdam	89%	6%	1%	1%	0%	0%	1%	2%	0%	100%	*100*
Technical Eindhoven	81%	14%	0%	3%	0%	1%	0%	0%	1%	100%	*328*
Creative Amsterdam	10%	30%	0%	18%	21%	0%	7%	13%	2%	100%	*61*
Creative Eindhoven	7%	9%	2%	14%	45%	0%	11%	9%	2%	100%	*44*
Expats Amsterdam	17%	54%	5%	12%	5%	0%	2%	2%	2%	100%	*41*
Expats Eindhoven	81%	0%	6%	6%	0%	0%	0%	0%	6%	100%	*16*
Bewonerspanel Amsterdam	11%	13%	10%	30%	6%	5%	2%	17%	5%	100%	*683*
Bewonerspanel Eindhoven	36%	16%	9%	18%	3%	2%	6%	5%	4%	100%	*340*
Bewonerspanel Almere	25%	19%	14%	24%	1%	3%	2%	7%	4%	100%	*153*
Total	40%	16%	7%	17%	5%	2%	4%	7%	3%	100%	*1766*

Another key variable that this study uses to describe the differences between middle class fractions is field of study. In Table 4.11 the proportion of study direction per sample group is presented. Obviously most of the technical workers have completed a technical study in IT, natural sciences or engineering. A relevant minority working for this type of company graduated in business or economics. Among the employees of creative industries the field of study is much more diverse: economy and business is the largest category in Amsterdam, while the Arts are the largest background for Eindhoven workers.
The resident panels also have graduates from a wide range of studies. In Eindhoven technically educated respondents dominate, but also many respondents studied a social subject, medicine or business. In Amsterdam social studies and humanities are the largest groups, but business and technical trainings are also representing about 10% each.

4.3 Description of employment groups

In this section descriptive statistics will be presented that compare respondents that work for technical companies, creative industries or for other employers (private businesses and public services). It should be stressed that these descriptives are still influenced by the method of sam-

pling and should therefore be considered indicative. The next chapter will control for this and estimate the actual effect of employment sector.

Residential location

Although of the sample about half of the technical workers live in the city of Amsterdam and Eindhoven, they are generally living less in the two urban cores than creative and other workers. Of the creative workers only 14% live outside of the two urban cores.

Table 4.12 Residential location by employment group

	Urban	Non-urban	Total	n
Technical	54%	46%	100%	848
Creative	86%	14%	100%	233
Other	81%	19%	100%	772
Total	69%	31%	100%	1853

Demographic characteristics

As already appeared from section 4.2, technical workers are more often men than women. Table 4.13 demonstrates that workers in the technical sector are for about 80% men and 20% women. In creative industries the gender division is much more in balance. Among the respondents that are used as the reference category a majority is female.

Table 4.13 Gender by employment group

	Male	Female	Total	n
Technical	79%	21%	100%	767
Creative	57%	43%	100%	223
Other	44%	56%	100%	777
Total	69%	31%	100%	1853

Table 4.14 household composition by employment group

	Single	Couple	Couple with children	Single parent family	Other	Total	n
Technical	**19%**	**35%**	**39%**	**3%**	**5%**	**100%**	***767***
Creative	**22%**	**41%**	**29%**	**4%**	**5%**	**100%**	***223***
Other	**25%**	**36%**	**34%**	**4%**	**2%**	**100%**	***776***
Total	**22%**	**36%**	**36%**	**3%**	**4%**	**100%**	***1766***

Table 4.14 presents the composition of the households across the different employment groups. The differences are quite small. Families with children are somewhat less represented among the creative workers, but still about one third is a couple with children. Singles are least represented among technical workers (19%), while about a quarter of the reference group consists of singles.

Table 4.15 mean age by employment group

	mean age	n
Technical	40.2	*770*
Creative	42.3	*220*
Other	47.4	*749*
Total	43.6	*1739*

Obviously, due to the sampling of people in the working age, the mean age is about 44 years old. Technical workers and creative workers are on average a bit younger than the other workers, but they do not differ much from each other.

Table 4.16 Country of birth by employment group

	Netherlands	Abroad	Total	n	Most mentioned countries
Technical	77%	24%	100%	*856*	*Belgium, China, India*
Creative	82%	18%	100%	*236*	*Germany, United States*
Other	85%	15%	100%	*777*	*Surinam, Germany, UK*
Total	81%	19%	100%	*1766*	

The majority of the respondents was born in the Netherlands, but a significant proportion (19%) was born abroad. The share of foreign-born workers is highest among technical employees and lowest among the other workers. The most common countries are generally Western nations, but among the technical workers, China and India are also frequently mentioned.

Socio-economic characteristics

Table 4.17 Level of education by sample group

	Higher vocational	Bachelor	Master	PhD	Total	n
Technical	6%	36%	45%	13%	100%	763
Creative	4%	62%	33%	1%	100%	222
Other	4%	52%	40%	4%	100%	774
Total	5%	46%	42%	8%	100%	1759

Technical workers are higher educated than creative workers and other workers. Among the technical workers 13% has obtained a PhD degree and almost half has a master degree. Creative workers most often have a bachelor degree. About a third holds a master degree and a completed PhD is very uncommon. The reference group occupies an intermediate position: about half has up to a bachelor degree and the other half holds at least a master degree.

Table 4.18 level of education of respondent's father by employment group

	None	Primary school	Secondary school	Higher vocational	University (bachelors)	University (masters)	PhD	Total	n
Technical	1%	10%	15%	29%	28%	13%	4%	100%	*724*
Creative	1%	6%	3%	18%	22%	34%	16%	100%	*213*
Other	1%	12%	17%	26%	27%	14%	3%	100%	*757*
Total	1%	10%	15%	26%	27%	16%	5%	100%	*1694*

Levels of education of fathers generally are lower than that of the respondents themselves. Interestingly the level of the father of the respondents shows an opposite picture of that of the respondent's own educational attainment. Whereas the technical workers on average have received a longer training and obtained more often a master and PhD degree, the level of education of the father is generally lower than that of the creative workers. The level of education of fathers of technical workers however does not differ from that of the fathers of the reference group. Apparently the creative workers have particularly highly educated parents[5]. This is in line with studies that have shown that technical and science graduates are more often from parental backgrounds with lower levels of education (Van de Werfhorst & Luijkx, 2010)
In terms of income, the majority of all groups earns a gross annual household income between 50,000 and 100,000 euro. The higher income categories are better represented among the technical workers, while creative workers are over-represented among the lower income categories. Compared to Table 4.6 in the previous section it appears that the technical workers from Shell have more often a high income than the average technical worker.

Table 4.19 gross annual household income in classes by employment group

	<12.000 euros	12.000 to 35.000 euros	35.000 to 50.000 euros	50.000 to 70.000 euros	70.000 to 100.000 euros	100.000 to 150.000 euros	150.000 to 200.000 euros	>200.000 euros	Total	n
Technical	1%	4%	15%	26%	28%	20%	4%	3%	100%	*675*
Creative	4%	27%	20%	25%	14%	10%	1%	0%	100%	*189*
Other	1%	14%	20%	22%	24%	14%	4%	1%	100%	*668*
Total	1%	11%	18%	24%	25%	16%	4%	2%	100%	*1532*

[5] The level of education of mother lies lower than that of fathers, but is also higher for creative workers than for the other two groups;

Aspects of housing

As noted before the share of homeownership among the respondents is very high. This is related to the fact that all respondents are higher educated and generally have quite high household incomes. There are no clear differences between the employment groups. The share of social tenants is very low (15%) compared to the share of housing that falls into this sector, particularly in the Amsterdam region. This is remarkable considering the fact that incomes and thus housing opportunities differ considerably between the worker groups.

Contrary to the homogeneity in terms of tenure status, housing size is more differentiated. Although most people live in large homes (5 rooms or more) a significantly larger share of creative workers live in dwellings with less than four rooms (Table 4.21).

Table 4.20 Tenure status by employment group

	Owner occupied	Private rental	Social rental	Other	Total	n
Technical	69%	16%	14%	1%	100%	*829*
Creative	65%	14%	19%	2%	100%	*229*
Other	75%	8%	15%	1%	100%	*777*
Total	71%	13%	15%	1%	100%	*1835*

Table 4.21 Total number of rooms per employment group

	1 room	2 rooms	3 rooms	4 rooms	5 rooms or more	Total	n
Technical	1%	8%	18%	19%	54%	100%	*818*
Creative	3%	11%	30%	17%	39%	100%	*227*
Other	1%	8%	20%	23%	48%	100%	*773*
Total	1%	8%	20%	20%	51%	100%	*1818*

The different employment groups do not differ much in terms of net housing costs (Table 4.23). The largest share pays between 366 and 664 euros and 664 to 1000 euros. Technical workers are somewhat less represented among the two lowest categories compared to the other workers.

Table 4.22 Monthly net housing expenses by employment group

	>366 euros	366-664 euros	664 euros to 1000 euros	1000 euros to 1500 euros	>1500 euros	I do not know / no answer	Total	N
Technical	9%	23%	39%	19%	4%	6%	100%	*831*
Creative	14%	27%	29%	20%	4%	7%	100%	*232*
Other	10%	37%	29%	15%	3%	6%	100%	*777*
Total	10%	29%	34%	17%	4%	6%	100%	*1840*

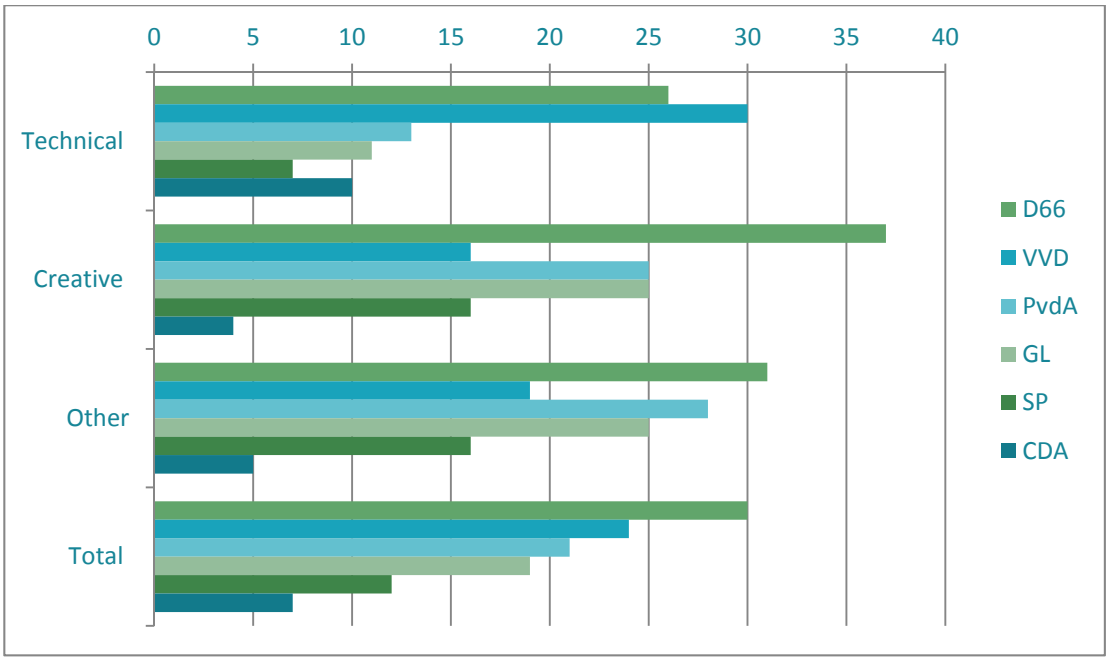
Life style characteristics

Of all respondents only 14% does not dispose of a car. The ownership of cars is most common among technical workers. About 30% of these workers owns several cars, while only 11% does not have access to a car. Creative workers seem to be least car-dependent. Although 64% owns at least one car, 23% indicates to have no access to a car, compared to 13% of other workers.

Table 4.23 Car ownership by employment group

	One car	Multiple cars	Lease car	Shared car	Car at disposal	No car	Total	n
Technical	52%	30%	2%	2%	3%	11%	100%	*752*
Creative	51%	13%	3%	5%	5%	23%	100%	*222*
Other	58%	19%	4%	4%	3%	13%	100%	*777*
Total	54%	23%	3%	3%	3%	14%	100%	*1751*

Figure 4.2 Political preference by employment group *(n=1753)*



Political orientation of the respondents both reflects current political trends (D66 being the winner of municipal and European elections in 2014) and voting behavior among higher educated generally (De Voogd, 2013). Among all respondents the social-liberal party D66 scores high. Nevertheless, there are clear differences in political attitudes. Technical workers have a stronger tendency to prefer right-wing liberal and conservative parties. Among the creative workers D66, Groen Links and the PvdA are the most popular parties. Among the reference group the social democratic PvdA is the second party after D66.

Figure 4.3 Newspaper readership by employment group *(n=1753)*

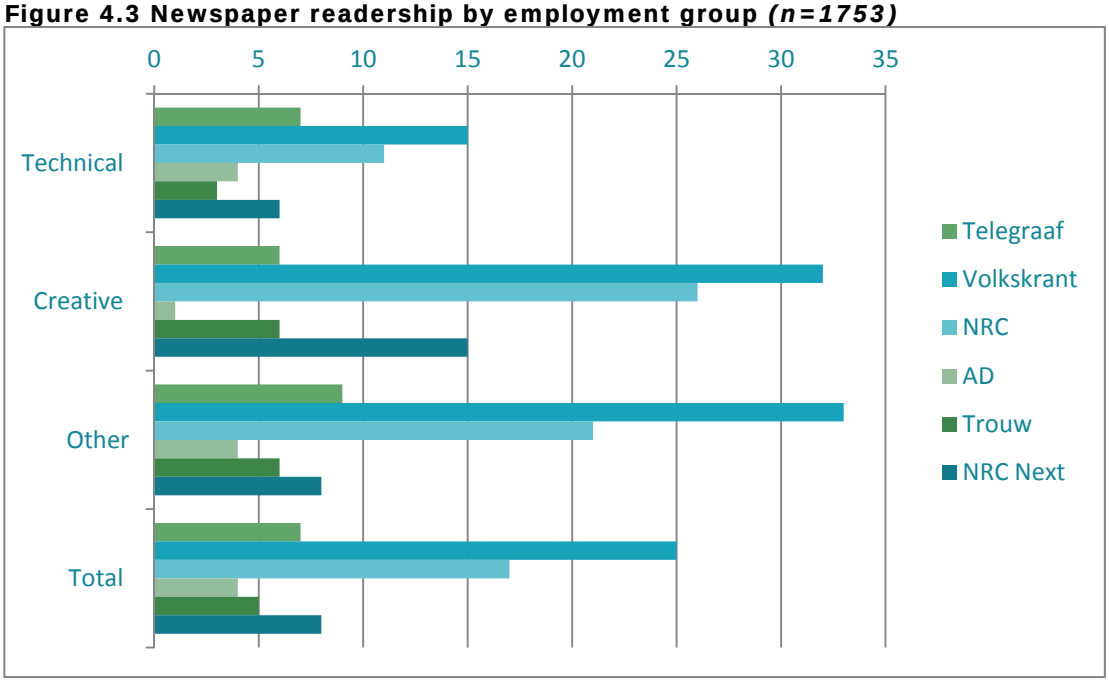


Figure 4.3 presents newspaper readership among the different response groups. De Volkskrant and NRC Handelsblad are the most popular newspapers. These newspapers are regarded to be the main quality newspapers in the Netherlands, which are most read by higher educated. In terms of the ranking of newspapers, the different employment groups do not show a strong differentiation. However, in terms of newspaper readership by and large, technical workers generally indicate that the read fewer newspapers than the other groups. Particularly creative workers seem to be fervent newspaper readers.

Table 4.24 Field of study by employment group

	Technical /Science	Business /Economy	Medical	Social	Arts	Law	Engineering /Architecture	Humanities	Other	Total	n
Technical	80%	12%	1%	3%	0%	0%	1%	1%	2%	100%	*684*
Creative	8%	14%	2%	15%	27%	1%	14%	18%	1%	100%	*204*
Other	13%	19%	13%	30%	2%	4%	2%	10%	5%	100%	*713*
Total	41%	15%	7%	17%	5%	2%	3%	7%	3%	100%	*1601*

It may go without saying that a strong correlation exists between the subject or field of study and the type of work one does after graduation. The vast majority of technical workers completed a technical or science study; the largest group among creative workers studied arts or architecture. Nonetheless, employment sectors are far from homogeneous. Technical work may be predominantly performed by technically trained workers, also law graduates, business students and other trainings are employed at technical firms. For the creative industries the variety of study background is even bigger. The common denominator of most creative workers is the non-bèta background: only 8% studied science or a technical subject and 2% did a medical study.
Obviously, the reference group has the most varied workers, coming from social studies, business and economics, but also often with a medical background.

4.4 Residential preferences of employment groups

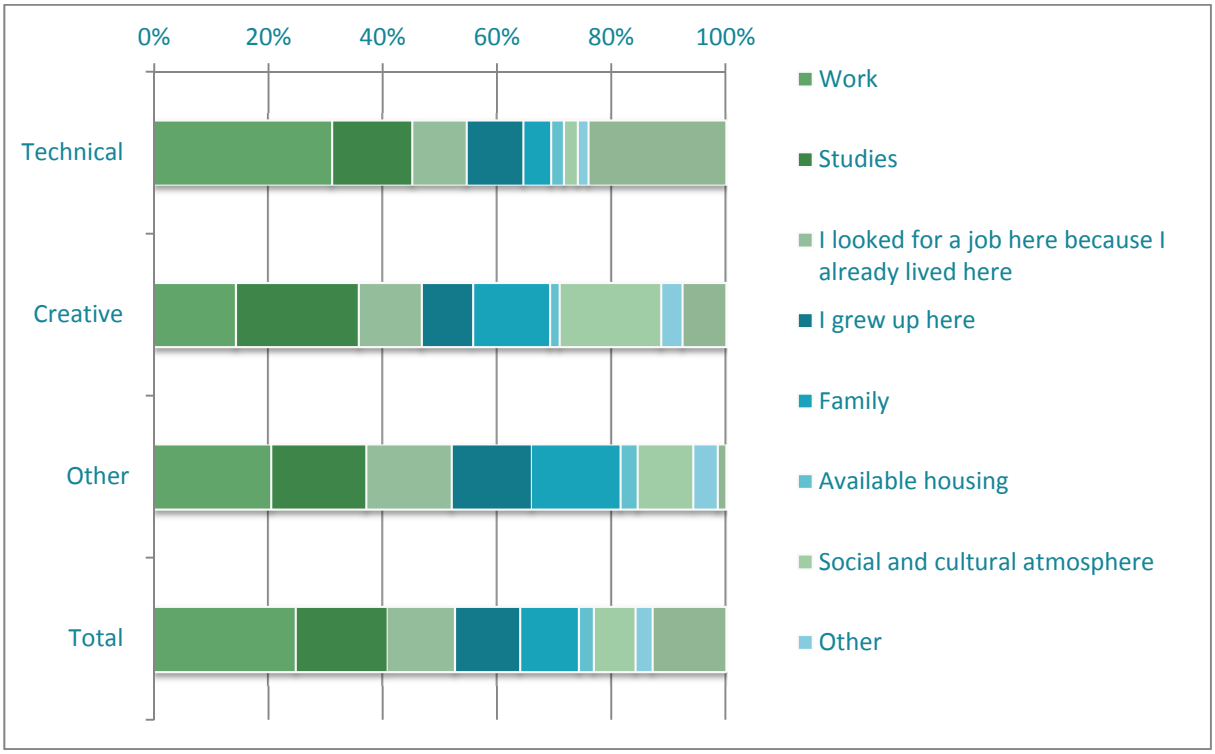
As the previous section has demonstrated, creative workers and technical workers differ considerably in various respects such as their life style and education background, while they appear similar in others, such as their life course situation. In terms of the residential orientation, it has been suggested that technical workers are more orientated to suburban locations. Particularly those respondents sampled from the two large high-technic firms point to a stronger focus on locations outside the urban core. This section will present the reasons for moving to the region; the satisfaction with current housing situation, and neighbourhood and regional amenities.

Table 4.25 median number of years in region and at current address

	Years in region	Years at current adress	n
Technical	15	6	*660*
Creative	20	7	*218*
Other	25	9	*764*
Total	20	7	*1643*

The median number of years in the region for all respondents is quite high. Particularly the reference group has lived in the Eindhoven and Amsterdam regions for many years. Also the median number of years at the current address is, with seven years, not very short. Technical workers are most residentially mobile. This is probably due to a relatively higher share of young and of foreign workers.

Figure 4.4 Reasons for moving to Amsterdam / Eindhoven region by employment group



In the literature work, studies and personal networks are argued to be more important than what is referred to as 'soft factors' for attracting high-skilled workers. Figure 4.4 indicates that for the respondents of this study these factors are also most important. Work is the most important, but also study and having lived in the region for a long time are often mentioned. The social and cultural atmosphere plays a minor role for most respondents. Nonetheless, for creative workers this had been a more important factor than for the other groups. Particularly for the technical workers, work and study are paramount.

If we look at the social networks more closely (Figure 4.5), it becomes apparent that most respondents have very extensive social networks. A very large majority have friends in the city region and in the country. Also about half of the respondents have family in the urban region and a close to 90% has family in the country. The technical workers have a slightly less extensive social network. This is partly related to the larger share of foreigners as Figure 4.6 shows, but this pattern also emerges for Dutch technical workers. Dutch technical workers also have relatively less often friends in the urban region in which they live than other workers. This may be due to the more specific education they received at technical universities in the Netherlands, which may be further away from their hometowns.

Figure 4.5 social networks by employment group (*n=1856*)

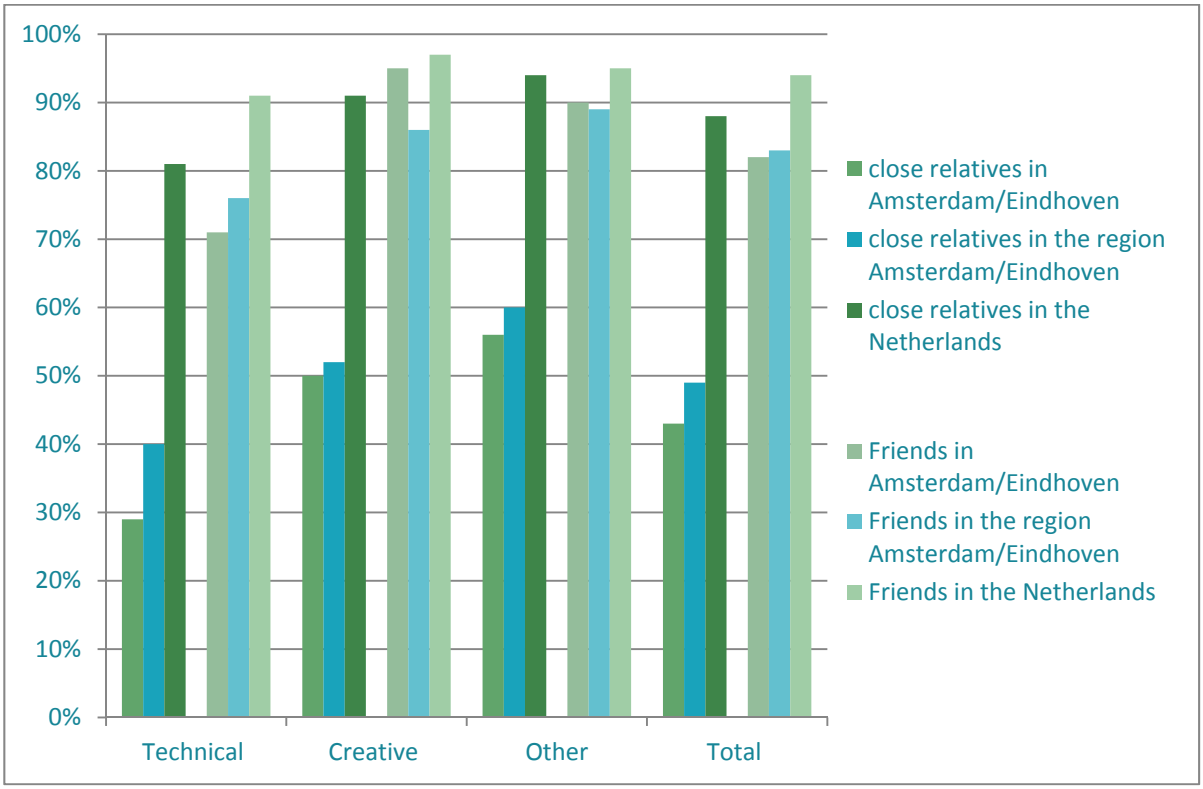
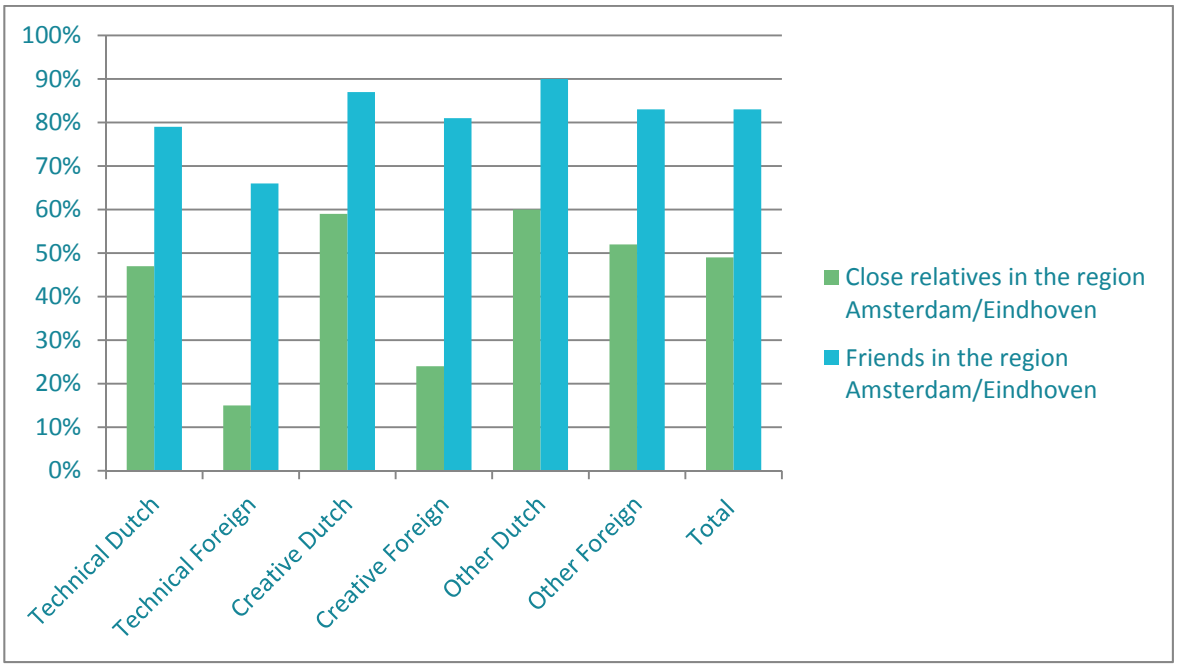


Figure 4.6 social networks by employment group and country of birth (*n=1856*)



Neighbourhood Amenities

Figure 4.7 'Wordles' of neighbourhood description in three key words

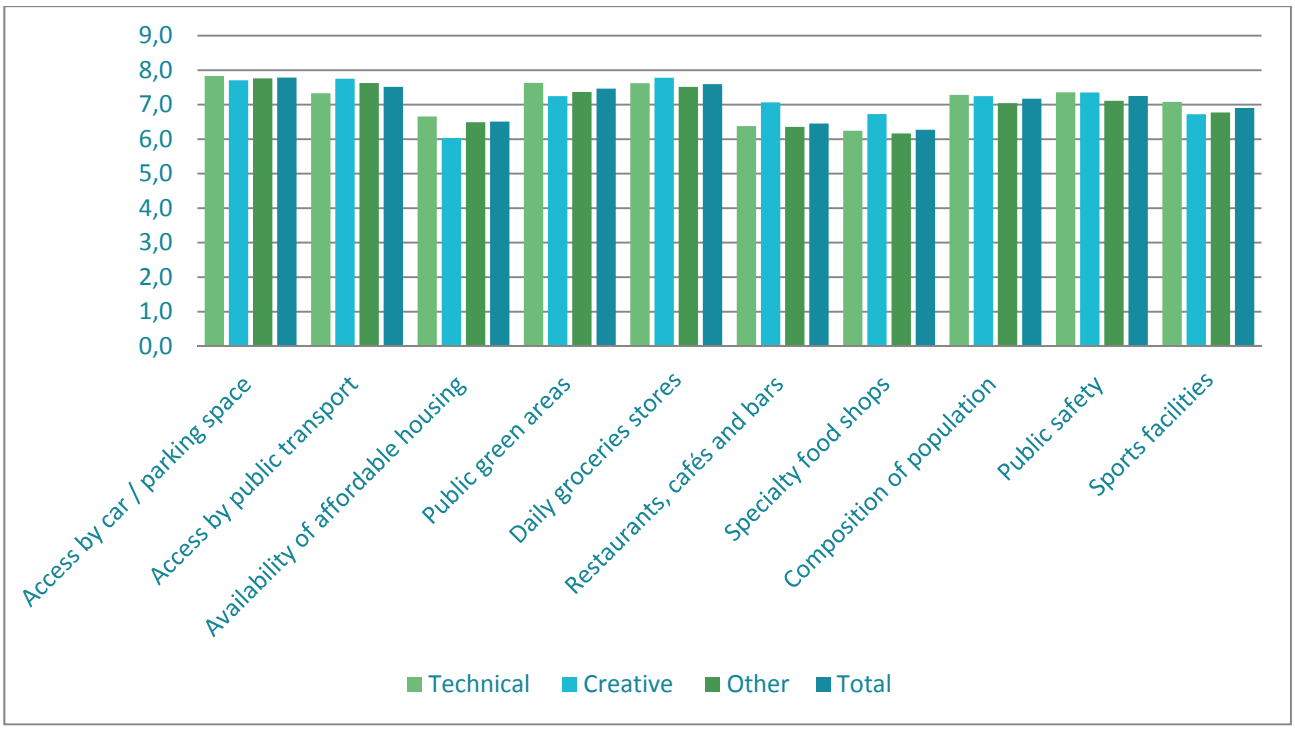
Technical

Creative

Other

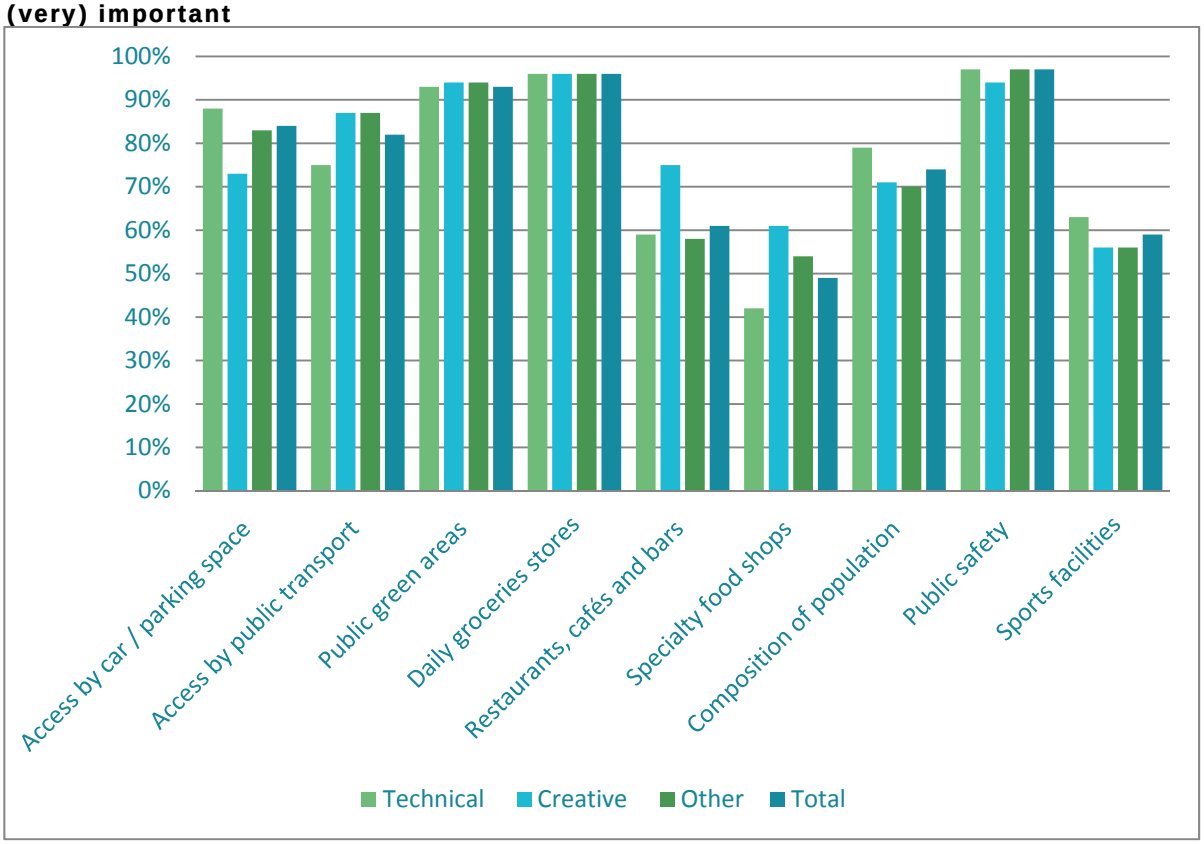
Figure 4.7 presents three word clouds (constructed via Wordle.net) that summarise the three key words respondents used to describe their neighbourhood. The more frequently it appears in the answers the bigger the word is depicted. Table 4.13 it was also shown that most respondents live in the core city, while particularly among technical workers suburban locations were very common too. This obviously affects the description of the neighbourhood. Despite the urban location of many it is striking that most people describe their neighbourhood as 'rustig' (*quiet* in Dutch). Another key word that emerges is 'groen' (*green* in Dutch). Apart from these two prevailing terms, differences between the groups appear as well. The Dutch word 'gezellig' (cosy, confortable, convivial) is the second most important word among creative workers, and also 'druk' (busy, crowded) and 'gemengd' (mixed, diverse) are standing out. The latter terms also feature among the answers of the other groups, but less prominently. These descriptions already provide a peek into the following subsections with which the satisfaction with and importance of neighbourhood amenities and regional amenities are analysed.

Figure 4.8 satisfaction with neighbourhood amenities (mark 1-10)



All respondents are the least satisfied with the availability of affordable housing in the neighboruhood. They are most satisfied with the accessibility by car and public transport and shops for daily groceries. There are no real differences in satisfaction between the respondent groups. Creative workers are slightly more satisfied with the offer of restaurants, cafes, and bars than other workers and seem to be a little less satisfied with housing affordability.

Figure 4.9 share of respondents that indicates neighbourhood amenities (very) important



Contrary to the consensus between groups in terms of neighbourhood amenity satisfaction, the valuation of some amenities differs considerably between employment groups. Public safety, daily groceries, and public green areas are considered important by the largest majorities in all groups. Accessibility by car is considered important by a larger share of technical workers than creative workers. Contrarily, specific urban amenities such as specialty food shops and neighbourhood bars and restaurants are deemed important by a larger group of creative workers than technical workers. It should be noted, however, that also among creative workers these amenities are generally among the least important. On average only 50% considered this (very)important, compared to 97% of all respondents who think public safety is (very)important.

Regional Amenities

Respondents were also asked to indicate the satisfaction and importance of amenities at the level of the urban region. As becomes clear from Figure 4.10, most respondents are satisfied with the amenities of their region. Only availability of affordable housing is marked with a 5.0 by creative workers and also the other groups are least satisfied with this. Most satisfied are the respondents with daily grocery stores (an 8.1). There seems to be little differentiation in terms of the satisfaction with the amenities in the region. On average the creative workers tend to give slightly higher marks, particularly compared to technical workers. Nonetheless, the graph does not give any indication of a very disparate evaluation of the aspects of the region.

The importance people attach to various regional amenities, to the contrary, is very differentiated (Figure 4.11). Public safety for instance is considered (very) important by almost all respondents. Also the offer of green areas and daily groceries are among the most important amenities at the regional level. The offer of specific cultural institutions such as museums or classical concerts, to the contrary, is considered important by a much smaller share of the respondents.
Moreover, the evaluation of the different amenities also differs between the groups. Particularly the offer of cultural events is regarded much more important by creative workers than technical workers. The reference groups provides less of a contrast with the creative workers, but also stands out compared to the technical workers. Among most of the other amenities the differences between the three groups are negligible. Only access by car offers some contrast.

Figure 4.10 satisfaction with regional amenities

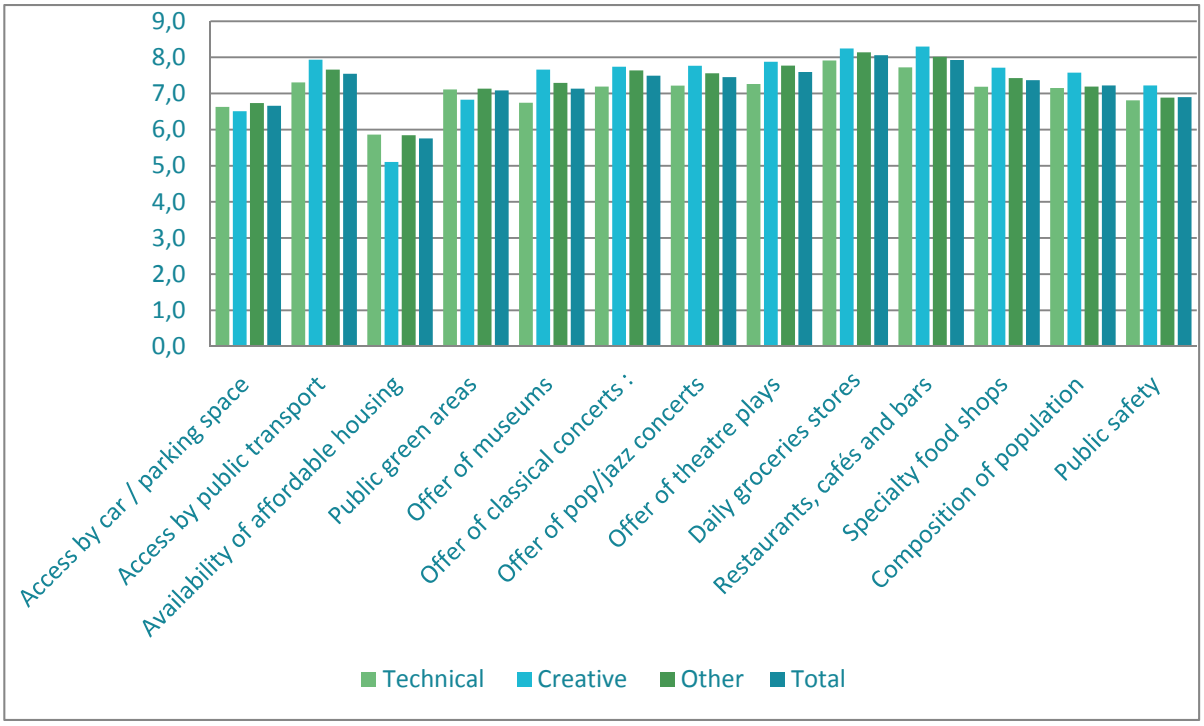
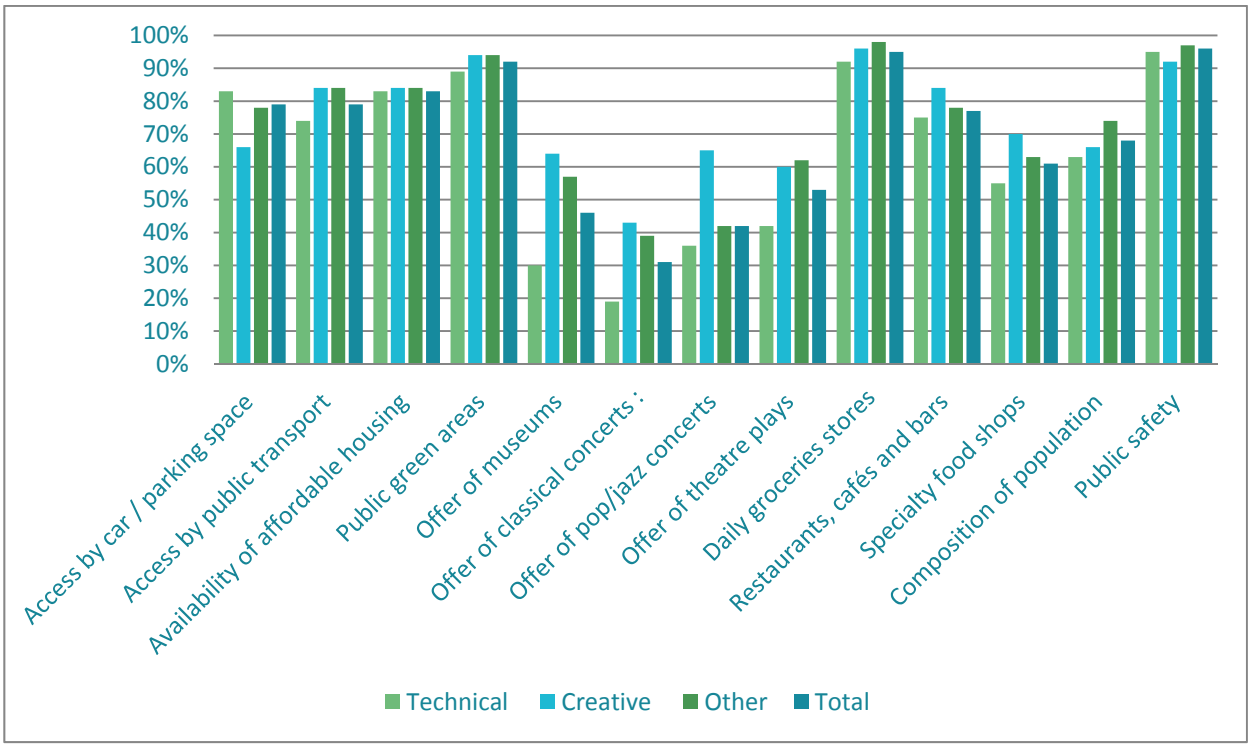


Figure 4.11 share of respondents that indicates regional amenities (very) important



Moving intentions and motives

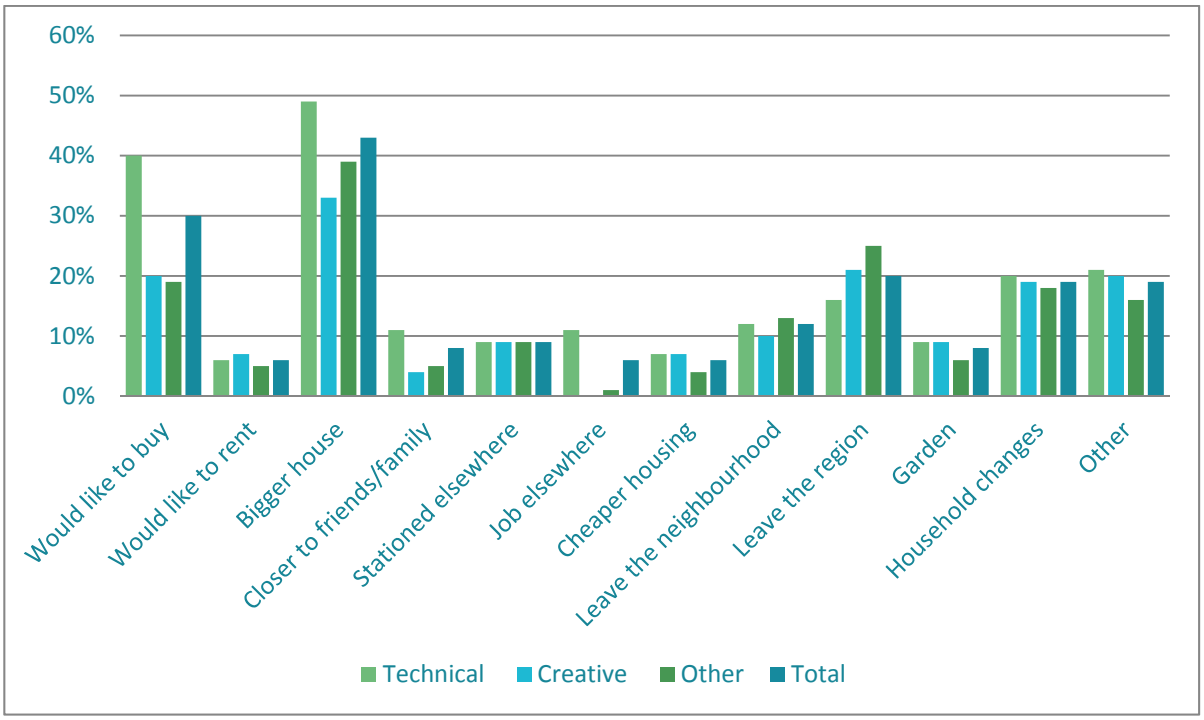
A relatively large group assesses the chance of moving in the next two years larger than 50%. Even though most people live at their current address for more than five years and also many already founded a family, about one third deems the chance of moving more than 50%. The differences between the groups of workers are quite small. Creative and technical workers may be slightly more prone to move than the reference category.

Table 4.26 self-reported moving chance by employment group

	0%	1-30%	30-50%	50-80%	>80%	Total	n
Technical	34%	31%	1%	19%	15%	100%	744
Creative	33%	30%	2%	19%	16%	100%	222
Other	43%	27%	2%	15%	13%	100%	744
Total	38%	29%	2%	17%	14%	100%	1742

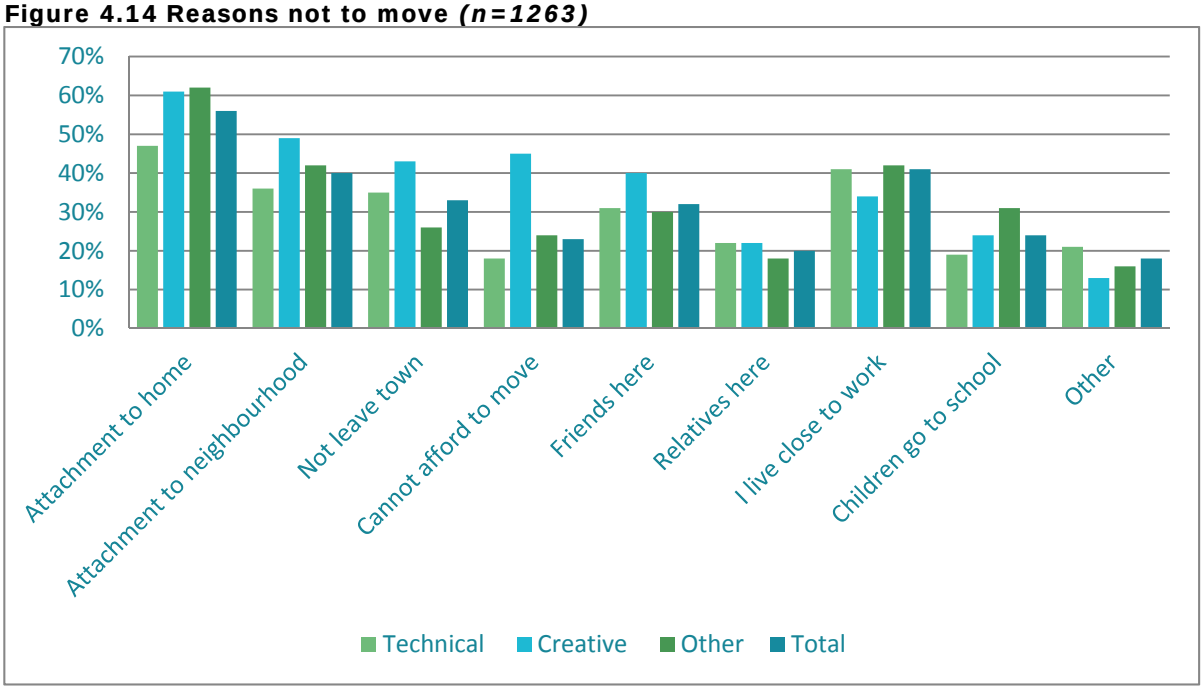
The respondents that indicated a bigger than 50% chance of moving were asked about their reasons for moving. The two main reasons are 'classic': a desire to move into homeownership and a bigger home. Although all groups deem these important reasons, technical workers are evidently more likely to include these two reasons for moving than the other groups.

Figure 4.13 reasons for moving *(n=478)*



The respondents that assessed the chance of moving smaller than 50% filled out questions about the reasons not to move. Figure 4.14 summarizes the most important reasons per employment group. For all employment groups most cited are 'attachment to home' attachment to 'neighbourhood' and 'live close to work'. Difference between the groups are small, but is appear s that moving costs, the proximity of friends and an attachment to the town of residence are more important for creative workers than for technical workers.

Figure 4.14 Reasons not to move *(n=1263)*



Aspects of Housing

All respondents were asked to consider the (hypothetical) situation that they were to move, and then had to indicate which aspects of the dwelling they would prefer. Table 4.28 demonstrates that a large majority prefers to buy, which corresponds with most respondent's current tenure status. Technical workers seem to prefer to buy slightly more often than creative workers.

Table 4.27 Preferred tenure when moving

	Owner occupied	Private rental	Social rental	Other	Dont't know	Total	n
Technical	74%	8%	5%	2%	11%	100%	741
Creative	62%	5%	9%	3%	20%	100%	222
Other	65%	5%	9%	3%	17%	100%	775
Total	69%	6%	7%	3%	15%	100%	1738

When asked about housing type some large differences emerge. As shown in table 4.28, technical workers overwhelmingly prefer (semi)detached housing, while creative workers have a much stronger penchant to apartments. A small caveat: about 20% of the respondents had no opinion about this topic.

Table 4.28 Preferred housing type

	Apartment	Terraced housing	Semi-detached	Detached	Other	I do not know / no answer	Total	n
Technical	12%	9%	19%	42%	4%	14%	100%	741
Creative	38%	9%	9%	18%	5%	21%	100%	221
Other	24%	14%	9%	23%	7%	22%	100%	774
Total	21%	12%	13%	30%	5%	19%	100%	1736

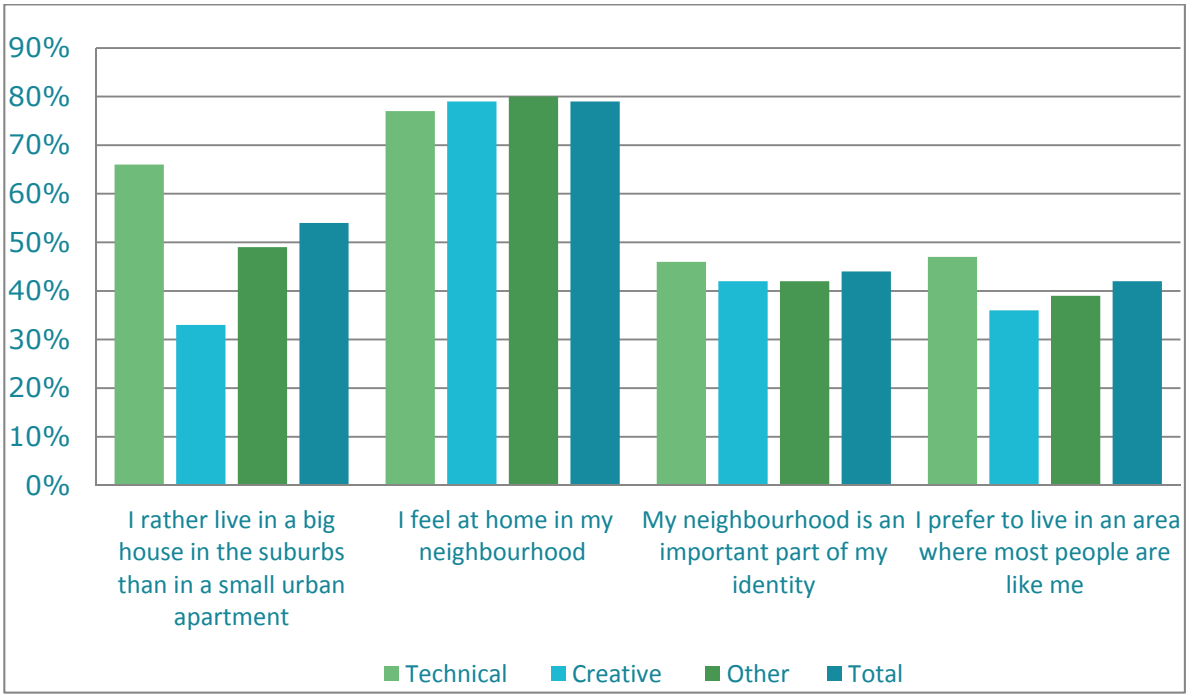
Respondents that indicated to prefer to buy were asked to indicate the range of buying price they were searching housing for. Table 4.29 summarizes the maximum price in five categories. In line with the slightly higher incomes, technical workers aim for more expensive housing, while creative workers are overrepresented among the lower buying price categories. The reference category assumes an intermediate position.

Table 4.29 Maximum buying price (in 1000 €) (n=1219)

	up til 200	200-300	300-400	400-500	more than 500	Total
Technical	19%	29%	26%	13%	14%	100%
Creative	29%	36%	18%	10%	7%	100%
Other	26%	29%	23%	10%	12%	100%
Total	23%	29%	24%	11%	12%	100%

To investigate some more of the tradeoffs involved in housing choice, respondents were asked to react to various statements about housing and neighbourhood. Figure 4.12 displays the share of respondents per employment group that (strongly) agrees with the statement. As appears from the figure, little differences can be discerned between the groups for three of the statements. The first statement about whether one rather lives in a larger house in the suburbs than in a small urban apartment, however, brings some large differences to the fore. Technical workers tend to agree with this statement much more than creative workers. This is in line with the preference expressed in Table 4.28, but it also shows that this preference holds when explicitly including size.

Figure 4.12 Statements about housing and neighbourhood, % (strongly) agree (n=1848)



To make some of these preference more concrete, respondents were asked where they would like to move if they were to change their residential location. In Table 4.30 the residential preferences when moving are summarized. Obviously, a large share of the respondents did not have any answer to this, as they are not planning to move (about 40% in Amsterdam and 50% in Eindhoven). Nonetheless, it becomes evident that largest group of respondents would like to stay in their own neighbourhood. In Amsterdam many would also like to move within the city, whereas a much smaller share of respondents from the region would like to move within the region. Some intend to move to the central city, but the largest group is orientated towards other locations, including destinations abroad.

Table 4.30 Residential orientation when moving by current place of residence

	Own Neigh-bourhood	Amsterdam	Amsterdam Region	Outside of the region	Other	Don't know /No answer	Total	n
Amsterdam	20%	26%	3%	8%	11%	33%	100%	454
Amsterdam Region	16%	6%	8%	7%	14%	48%	100%	238
	Own Neigh-bourhood	**Eindhoven**	**Eindhoven region**	**Outside of the region**	**Other**	**Don't know/ No answer**		
Eindhoven	14%	12%	7%	6%	11%	50%	100%	914
Eindhoven Region	23%	2%	9%	8%	12%	47%	100%	131

In Eindhoven a large group wants to move within Eindhoven and a slightly larger group than in Amsterdam wants to move into the region. In the Eindhoven region only very few people want to move into the central city and a larger group intends to move within the region. A rather large group prefers to move outside of the region.

Neighbourhood taste

To measure neighbourhood and residential environment taste respondents were asked to rank images of various environments and also to rank ten areas within the regions of Amsterdam and Eindhoven. These environments were selected from the Amsterdam region (5) and the Eindhoven region (5) based on their density and building period. The images were shown without any reference to where they were made. Respondents were simply asked to rank them based on how attractive they found them. As five of the images were from the Amsterdam region and five from Eindhoven, most respondents would not recognize most of them. Figure 4.17 shows the images used.

Figure 4.17 Images used in the analysis.

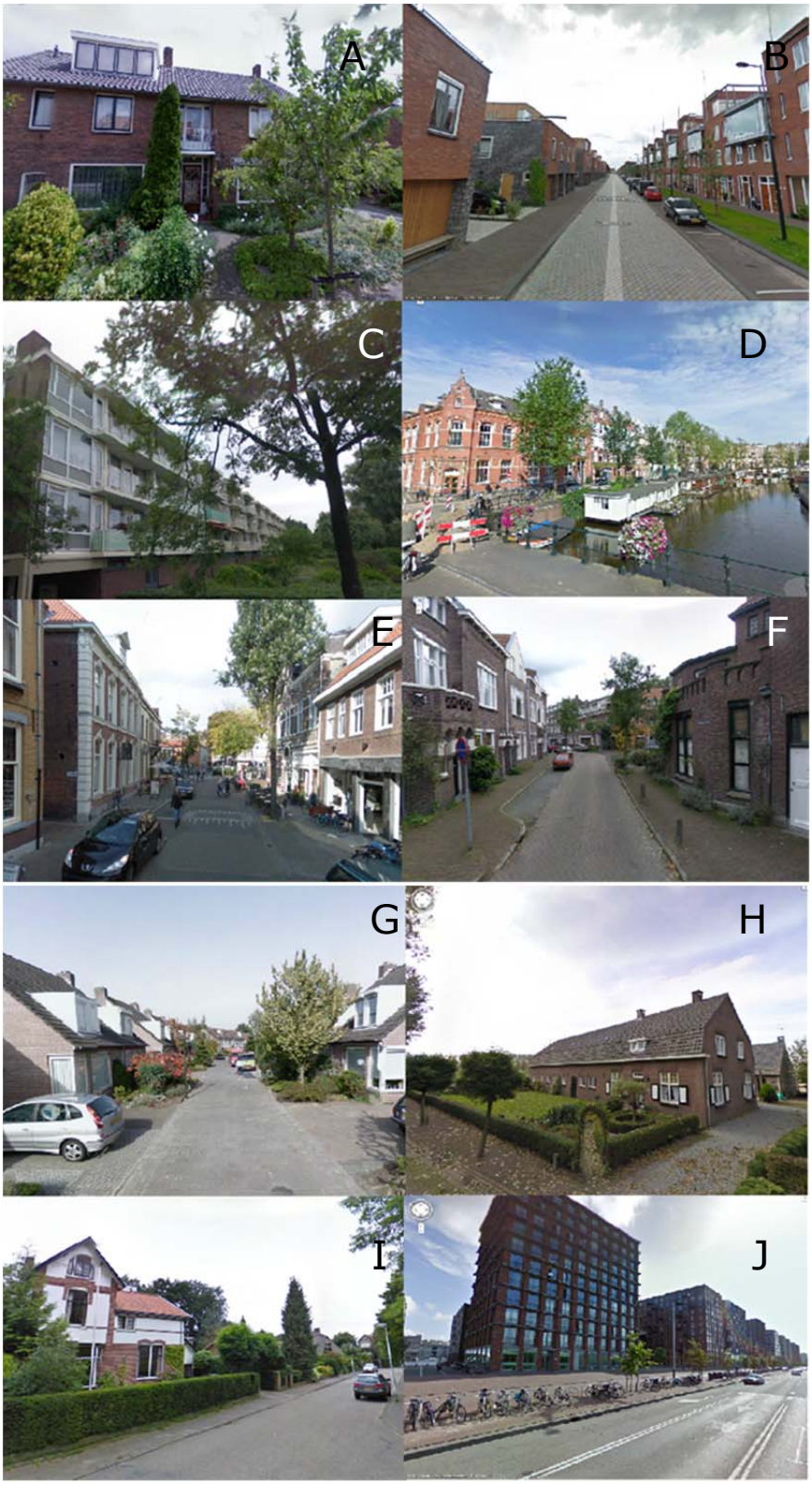


Figure 4.18 shows the ranking of the various images by employment group. The reference category was positioned in the middle to facilitate a better interpretation. What immediately becomes apparent, all respondents agree in ranking Image J and C –on average- lowest (although standard deviations differ). Image I (a pre-war suburban environment) clearly shows a different ranking between the worker groups. While Technical workers rank this as most attractive, the creative workers rank it fourth. Image E (a pre-war urban environment) shows the opposite ranking: technical workers rank this low (seventh), while creative workers rank it second. Generally urban environments (DEF) are ranker higher by creative workers than by technical workers. The reference category occupies again an intermediate position.

Figure 4.18 Mean rank of images of residential environments

Rank	Technical	Other	Creative
1	Image I	Image A	Image D
2	Image A	Image I	Image E
3	Image H	Image H	Image A
4	Image D	Image D	Image I
5	Image G	Image E	Image F
6	Image B	Image F	Image H
7	Image E	Image G	Image B
8	Image F	Image B	Image G
9	Image J	Image J	Image J
10	Image C	Image C	Image C

Preferences for residential environments are also measured via the ranking of areas (Figure 4.19). These are specific for the two urban regions but are selected to be comparable between the two cases. In both contexts pre-war inner city milieus in the core city, an urban regional centre; historical suburban, post-war suburban, Vinex, and village environments were selected.

Figure 4.19 Locations in Amsterdam and Eindhoven regions used in the analysis. (source author)

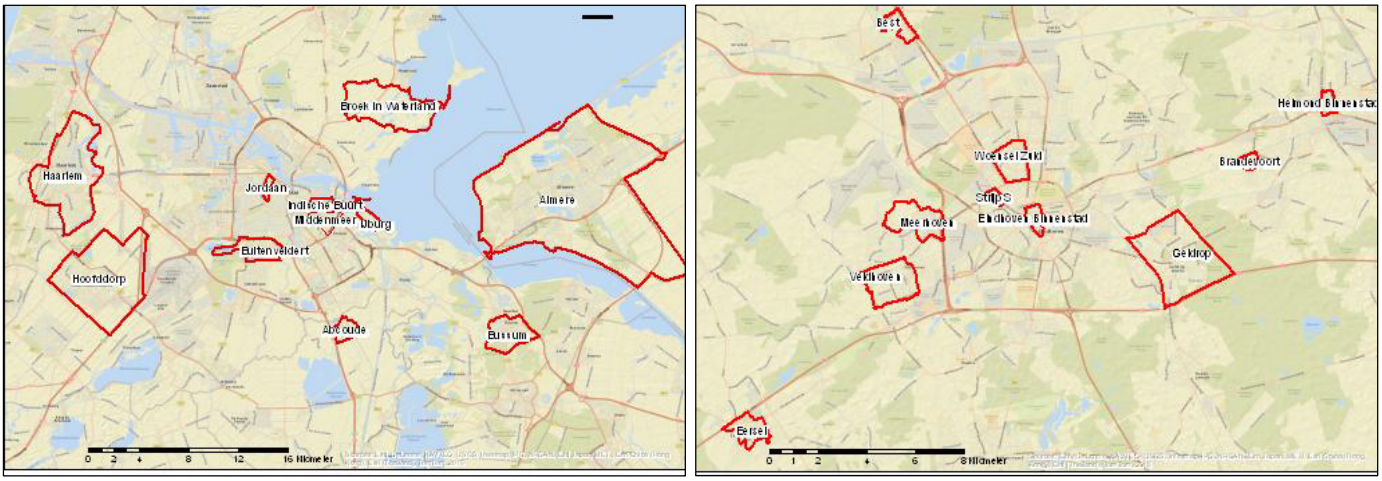


Figure 4.20 shows the ranking of areas in the Amsterdam region. Here, it appears that -apart from a general low ranking of Almere- creative workers have a strongly urban preference, whereas technical workers generally rank suburban locations higher. Indische Buurt (inner-city socially mixed area) is the best case in point: Creative workers rank this neighbourhood third, while technical workers rank it last (10th). For a historical suburban environment like Abcoude the picture is the reverse: technical workers rank it third, while creative workers rank it eighth.

Figure 4.20 Mean rank of residential environments in Amsterdam region

Rank	Technical	Other	Creative
1	Haarlem	Watergraafsmeer	Jordaan
2	Jordaan	Jordaan	Watergraafsmeer
3	Abcoude	Haarlem	Indische Buurt
4	Bussum	Indische Buurt	Haarlem
5	Broek in Waterland	IJburg	IJburg
6	IJburg	Buitenveldert	Buitenveldert
7	Buitenveldert	Abcoude	Broek in Waterland
8	Almere	Broek in Waterland	Abcoude
9	Watergraafsmeer	Bussum	Bussum
10	Indische Buurt	Almere	Almere

In the Eindhoven region, the picture is somewhat less clear. Both central Eindhoven and Strijp S are rather popular among all groups. Also, respondents tend to agree to rank Helmond (industrial regional centre) and Brandevoort (new-build postmodern housing estate) generally quite low. Woensel Zuid (inner-city socially mixed area) is ranked low by technical workers (7th), while creative workers rank it in the top three (3rd). Veldhoven (a post-war suburban development at the fringes of the city) to the contrary, is much more popular among the technical workers (who rank it first) than among the creative workers (who rank it sixth).

Figure 4.21 Mean rank of residential environments in Eindhoven region

Rank	Technical	Other	Creative
1	Veldhoven	Central Eindhoven	Strijp S
2	Central Eindhoven	Strijp S	Central Eindhoven
3	Strijp S	Veldhoven	Woensel Zuid
4	Meerhoven	Woensel Zuid	Geldrop
5	Best	Geldrop	Meerhoven
6	Geldrop	Meerhoven	Veldhoven
7	Woensel Zuid	Best	Best
8	Eersel	Brandevoort	Eersel
9	Brandevoort	Eersel	Brandevoort
10	Central Helmond	Central Helmond	Central Helmond

Figure 4.22 most important aspects of dwelling, neighbourhood and location

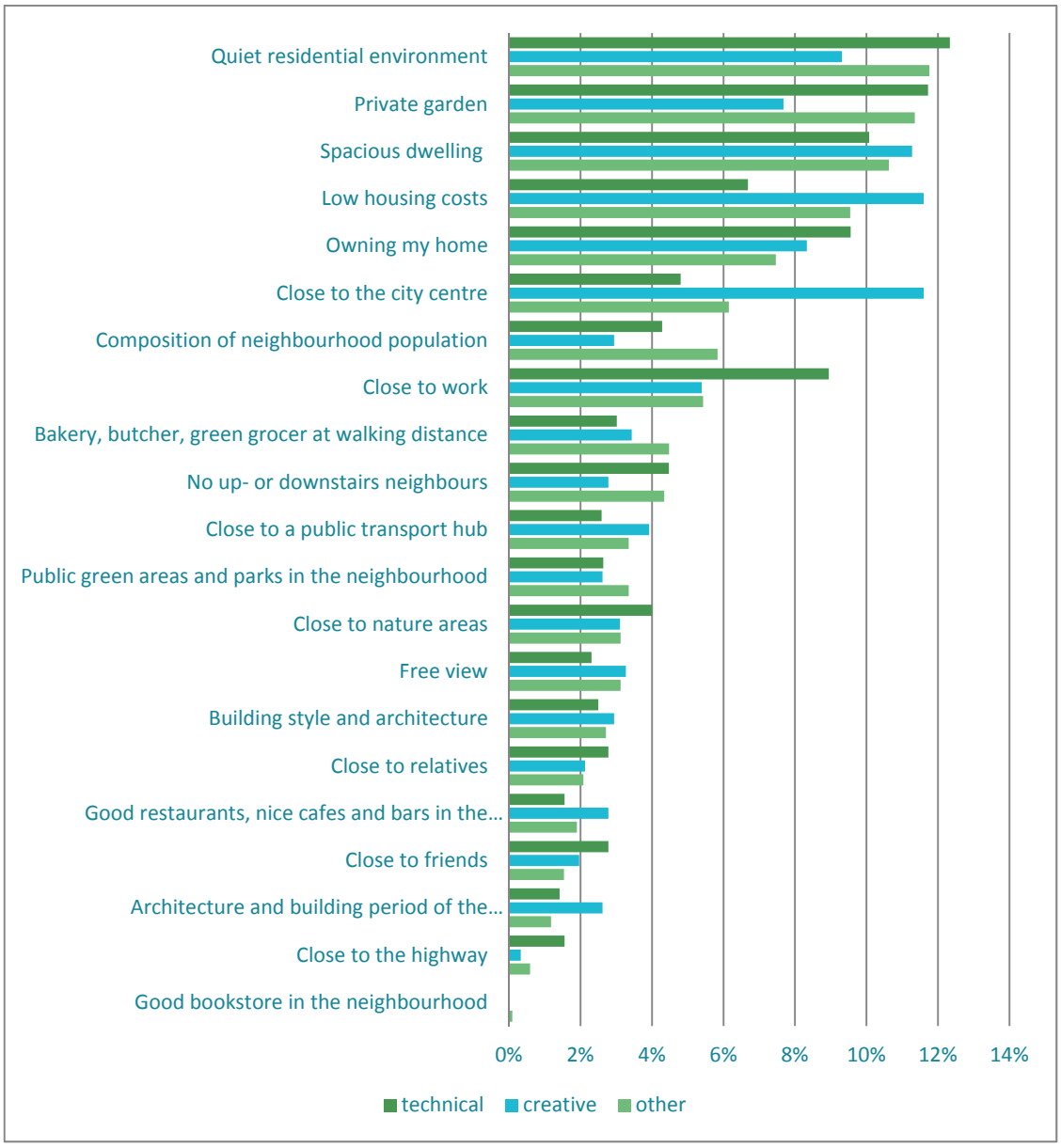


Figure 4.23 mean times mentioned in top three

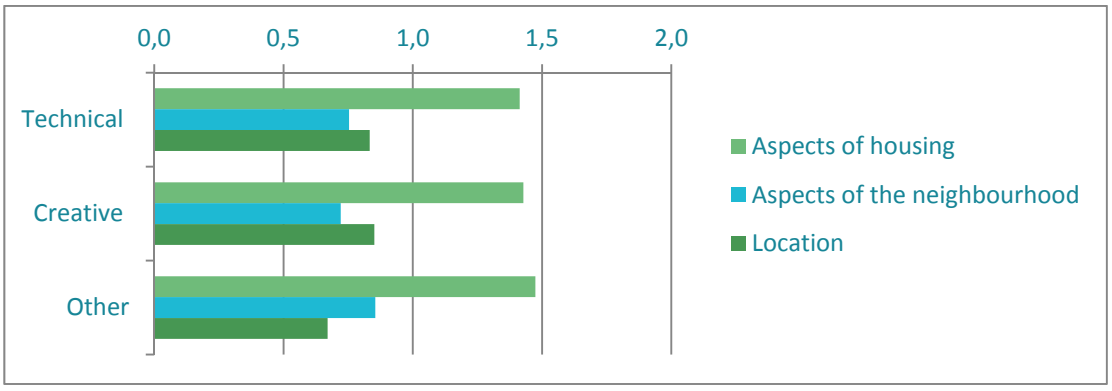


Figure 4.22 summarises the frequency of aspects of housing that respondents included in their top three priorities (out of 21 options). It is clear that most of the aspects that are weighed most heavily are aspects of the dwelling, such as a spacious dwelling, private garden and housing costs. Yet a quiet residential environment tops the priority list. Amenities in the neighbourhood are generally ranked quite low.
Between the different groups of workers differences are rather small. Yet, some aspects stand out: for creative workers 'close to the city centre' is much more frequently included as top priority, while technical workers mention 'close to work' significantly more.

The final figure (4.23) displays a simplification of the former: the seven items for each aspect of residential preferences (housing, neighbourhood and location) are counted for how often they were mentioned in the top three of most important aspects of residential choice. As appears from the figure, all groups mention aspects of housing most often. Location is mentioned more often by both technical and creative workers, while aspects of the neighbourhood are slightly more important for the reference category.

The next chapter will draw on these findings and will through regression analyses try to establish the effects of employment sector on various dimensions of residential preferences.

5. Analyses

5.1 Regressions

As the previous chapter has suggested technical workers and creative workers appear to have some different housing preferences. Particularly the differences in terms of urban or less urban orientation stand out in this respect. This chapter will establish via a range of regression analyses to what extent this urban/suburban orientation of different worker groups still holds when controlled for a range of other variables that are likely to influence these stated preferences too (see conceptual scheme, Figure 3.1). The structure of the remainder of this chapter will be as follows: first the variables used will be briefly described; second the ranking of urban images and urban locations will be modelled; third suburban images and locations are modelled; fourth, the preference for homeownership is modelled; fifth the preference for various urban amenities is modelled. The last section investigates the effects for the main reasons for moving to the two urban regions.

5.2 Description of the used variables

The table below summarizes the variables used in the various models. The dependent variables, twelve in total, correspond to the fifteen different models. In order to assess the effect of creative vs technically skilled workers the first seven models have an A and a B version. A estimates the effects for field of study, while the B models estimate it for employment sector. To avoid too much repetition the last eight models use only employment groups. This was decided because of the relatively minor difference between both types of predictor (see the next sections).

Table 5.1 Descriptive statistics of used variables

Dependent variables	n	Min	max	mean	StD
Ranking urban images	*1752*	2	9	5.022	1.73
Ranking suburban images	*1750*	2	9	3.948	1.79
Ranking urban locations	*1781*	1.5	9.5	4.203	2.60
Ranking suburban locations	*1781*	2	9	5.338	1.79
Rather large suburban house than small urban apartment	*1848*	0	1	0.5373	
Homeownership as priority	*1800*	0	1	0.2467	
Restaurants important	*1914*	0	1	0.5987	
Theatre important	*1914*	0	1	0.5303	
Museums important	*1914*	0	1	0.4587	
Speciality shops important	*1914*	0	1	0.4875	
Central location	*1800*	0	1	0.1872	
(Semi) Detached housing	*1839*	0	1	0.4290	
Moved because of social and cultural atmosphere	*2375*	0	1	0.0741	
Moved because of study or work	*2375*	0	1	0.4046	
Independent variables					
Gender=male	*1911*	0.00	1.00	.6010	
Age	*1914*	21.00	65.00	43.97	.39
Country of birth = foreign	*1914*	0.00	1.00	.1855	
Couple Household (REF)	*1914*	0.00	1.00	.3851	
Household with children	*1914*	0.00	1.00	.3981	
Single-person household	*1914*	0.00	1.00	.2168	
Number of higher-educated parents (higher vocational+)	*1890*	0.00	2.00	.7783	
Masters or PhD degree	*1914*	0.00	1.00	.4843	
Higher income (>90.000)	*1636*	0.00	1.00	.2133	
Lower income (<30.000)	*1636*	0.00	1.00	.1290	
Study Science/Technical (REF)	*1722*	0.00	1.00	.4024	
Study Architecture	*1722*	0.00	1.00	.0354	
Study Law	*1722*	0.00	1.00	.0232	
Study Social	*1722*	0.00	1.00	.1678	
Study Medical	*1722*	0.00	1.00	.0679	
Study Economy/Business	*1722*	0.00	1.00	.1609	
Study Arts	*1722*	0.00	1.00	.0441	
Study Humanities	*1722*	0.00	1.00	.0662	
Study Other	*1722*	0.00	1.00	.0319	
Occupation Other (REF)	*1705*	0.00	1.00	.4410	
Occupation Technical	*1705*	0.00	1.00	.4352	
Occupation Creative	*1705*	0.00	1.00	.1238	
Eindhoven region (Amsterdam=REF)	*1914*	0.00	1.00	.6092	

5.3 Urban Preferences

In Table 5.2 the estimated effects on the average ranking of central urban images, as described in section 4.3 are displayed. It is important to note that a high rank corresponds with a low figure (1=first → highest; 10 = last → lowest). While interpreting the table a negative correlation thus indicates a stronger preference. The first model (a and b) describe the effect on the ranking of images and the second model (a and b) describe the effect on the ranking of the three urban locations in both cities.

As becomes clear from Table 5.2 for both models a clear effect can be identified of household composition: family households rank the urban images relatively low (compared to couples), singles to the contrary rank the urban images higher (compared to couples). Age does not have any effect on the ranking of images, but is a significant predictor of the rank of urban locations. The higher the respondent's age, the lower urban locations are ranked.

Income has no clear effect, but level of educational attainment of the respondents and that of their parents has. Despite the fact that the sample contains high educated workers only, a significant difference could be identified between academically educated (masters and PhD) and other more vocationally trained. Academically educated tend to rank urban images and locations higher and also children of higher educated parents have a stronger preference for urban milieus.

The main distinction in this study is that between technically orientated workers and workers in 'creative industries'. In models 1a and 2a the effect of field of study is displayed. Compared to the reference category (technical studies and natural sciences) graduates from all other fields of study ranked urban images higher. Particularly graduates in the social sciences, arts and humanities have a significantly higher appreciation of urban environments than technically educated. This applies to both locations and images.

Model 1b and 2b estimate the effects for sectors of employment instead of field of study. Here the same picture emerges: compared to other higher educated workers, technical workers are less likely to rank urban environments high, while workers in creative industries are more likely to rank them high. Again the locations and images show the same pattern.

Finally, a clear effect could be discerned between the two urban regions of this research: inhabitants of Eindhoven region generally ranked urban images lower than respondents from the Amsterdam region. The urban locations, however, are more preferred in Eindhoven than in Amsterdam. Apparently the meaning attached to the locations in Eindhoven does not correlate in the same way to the images as it does in Amsterdam. Possibly the selected locations in the Eindhoven region are more contrasting to each other.

Table 5.2 Ranking of urban images and location

	Model 1a	Model 1b	Model 2a	Model 2b
Dependent variables	Ranking urban images	Ranking urban images	Ranking of urban locations	Ranking of urban locations
Independent variables	*Standardised B*	*Standardised B*	*Standardised B*	*Standardised B*
Gender=female	-.006	-.056*	-.010	-.042
Age	.026	.004	.108***	.090***
Country of birth = foreign	.033	.044*	.004	-.009
Couple household (=REF)				
Household with children	.095***	.090***	.143***	.116***
Single-person household	-.098***	-.125***	-.059**	-.101***
Masters or PhD degree	-.117***	-.137***	-.076***	-.098***
Higher-educated parents	-.059**	-.051*	-.069**	-.057**
Higher income	-.005	-.015	-.019	-.028
Lower income	-.022	.016	-.020	.004
Study Science/Technical (REF)				
Study Architecture	-.120***		-.130***	
Study Law	-.077**		-.096***	
Study Social	-.196***		-.200***	
Study Medical	-.059**		-.109***	
Study Economy/Business	-.104***		-.128***	
Study Arts	-.157***		-.143***	
Study Humanities	-.141***		-.156***	
Study Other	.016		-.072***	
Occupation Other (REF)				
Occupation Technical		.135***		.234***
Occupation Creative		-.203***		-.125***
Eindhoven region (Amsterdam=REF)	.166***	.149***	-.213***	-.244***
Model fit R^2	*0.171*	*0.181*	*0.141*	*0.155*

*** p <0.1 ** p<0.05 *** p<0.01**

Table 5.3 Ranking of suburban images and locations

	Model 3a	Model 3b	Model 4a	Model 4b
Dependent variables	Ranking sub-urban images	Ranking subur-ban images	Ranking of sub-urban locations	Ranking of subur-ban locations
Independent variables	*Standardised B*	*Standardised B*	*Standardised B*	*Standardised B*
Gender=female	-.036	.006	.034	.053**
Age	-.039	-.034	-.033	-.031
Country of birth = for-eign	.081***	.088***	.000	.005
Couple household (=REF)				
Household with chil-dren	-.157***	-.149***	-.093***	-.076***
Single-person house-hold	.122***	.118***	.087***	.117***
Masters or PhD degree	.082***	.097***	.095***	.107***
Higher-educated par-ents	.052**	.034	.012	.003
Higher income	-.047*	-.050*	.013	.024
Lower income	.033	.015	.043	.015
Study Science/Technical (REF)				
Study Architecture	.078***		.070***	
Study Law	.041		.062**	
Study Social	.133***		.187***	
Study Medical	.040		.078***	
Study Econo-my/Business	.035		.097***	
Study Arts	.043		.116***	
Study Humanities	.070***		.119***	
Study Other	.021		.055**	
Occupation Other (REF)				
Occupation Technical		-.081***		-.204***
Occupation Creative		.078***		.087***
Eindhoven region (Amsterdam=REF)	-.187***	-.179***	-.237***	-.210***
Model fit R^2	*0.173*	*0.156*	*0.184*	*0.198*

*** p <0.1 ** p<0.05 *** p<0.01**

5.4 Suburban Preferences

In the Table above (5.3) the estimations for the ranking of the suburban images and locations as described in section 4.3 are displayed. Again, please mind that a negative correlation indicates a high ranking.
It appears from the table that in model 3a women rank suburban locations slightly lower than men. Also foreign born respondents rank suburban images lower than Dutch-born respondents. The effect however, is not consistent in the ranking of the locations.
More evidently, households with children clearly rank suburban images and location higher than other households. This fits with the common trajectory of most family households to move to suburban locations. For singles the opposite applies: singles display a smaller liking for suburban milieus. The effect for income is quite small again: higher incomes are a bit more oriented towards suburban milieus (based on the images). Level of education has a clearer effect. Academically trained respondents tend to rank suburban milieus lower than other higher educated.

For the field of study the picture is not entirely clear. Compared to technically trained workers, some graduates (architecture, humanities and social sciences) significantly rank suburban images and locations lower. Other studies do not differ significantly from technically trained respondents. For the locations, all non-technically educated respondents are less likely to rank the suburban locations higher than the technically trained respondents. Here a stronger effect can be identified than for the images.
For the employment groups a similar conclusion can be drawn: compared to other workers, employees in technical sectors are generally more suburban, while creative workers are less suburban compared to other higher educated. This can be identified both for the ranking of images and locations. Finally, in general the respondents in the Eindhoven region have a stronger preference for suburban living. This is expressed both via ranking of images and locations.

5.5 Housing Preferences

Table 5.4 shows two models: 5 (a and b) that estimates the probability of preferring a large suburban home to a small urban apartment and model 6 (a and b) that estimates the probability of mentioning homeownership in the top 3 of most important aspects of residential choice (dwelling and its environment (out of 21 options).
For both the field of study and the line of work the effects are quite evident. Compared to technical graduates all other studies predict a lower probability to prefer a large suburban home to an urban apartment. Compared to other workers, clearly technical workers prefer a suburban home, while creative workers tend to disagree with the statement more often. Of the main control variables family composition is a strong predictor: households with young children agree with the statement while singles disagree. Interestingly level of education of the respondents, and that of their parents also has negative effect on the preference for a suburban home. Income does not seem to play a role.
For a preference for homeownership the models show a less clear image. About 25% of all respondents rank homeownership as a top-priority when selecting housing. From Table 5.4 it ap-

pears that the strongest effects on a preference for homeownership are income and gender. Men are significantly likely to include homeownership among their housing priorities. High income households are much more likely and low incomes are much less likely than middle incomes to include owning a home as one of their priorities. Interestingly, academically trained respondents have a smaller chance of prioritising homeownership compared to the other higher educated.
Of the key variables of this study the difference between various higher educated workers does not seem to play a role for the aspiration to homeownership. Only students of architecture have a bit stronger penchant to aspire to owning a home. Eindhoven and Amsterdam scored the same too.

In Table 5.5 the effect of different factors on the preference for a semi-detached or a detached home are shown. Interestingly age correlates negatively with the preference for a semi-detached home. Also foreign born respondents are less likely to prefer this type of housing.
It appears that particularly households with children have a greater preference for this type of housing, whereas singles tend to like it less. This is consistent with the results of the previous analyses in which households with children are more suburban.
The effect of income is very clear and consistent with what one would expect: higher incomes are much more orientated towards semi-detached housing, whereas low incomes are much less so. This seems to be in line with studies that have argued that housing preferences are often realistic and well within the opportunities and constraints of a household.
Perhaps somewhat surprising, academically trained respondents less often prefer (semi)detached housing. This may be associated with the in the previous analysis identified urban orientation of these households. Of the graduates of various studies, most are much less drawn to semi-detached housing. Particularly graduates in architecture, law and social sciences are much less likely to indicate a preference for this type of housing. For the worker groups a similar picture emerges: technical workers are much more likely to prefer semi-detached homes compared to the reference group. Creative workers, however, do not differ from the other higher educated (but do from technical workers).
Finally, for respondents from the Eindhoven region this type of housing is also a much-appreciated form of housing. This may again be related to the supply of the regional housing markets and may hence be a preference resulting from what is realistically feasible.

Table 5.4 Logistic regression; housing characteristics

	Model 5a	Model 5b	Model 6a	Model 6b
Dependent variables	Prefers large sub-urban home to small urban apartment	Prefers large sub-urban home to small urban apartment	Homeownership aspiration	Homeownership aspiration
Independent variables				
Gender=female	.782*	.710**	.653***	.664**
Age	1.001	.999	.992	.994
Country of birth = foreign	.743**	.803	1.257	1.188
Couple household				
Household with children	2.019***	1.953***	.965	.962
Single-person household	.637***	.584***	1.131	1.166
Masters or PhD degree	.618***	.565****	.750**	.728**
Higher-educated parents	.795***	.819***	1.019	1.034
Higher income	1.020	1.084	1.429**	1.479***
Lower income	1.024	1.034	.381***	.418***
Study Sci-ence/Technical (REF)				
Study Architecture	.371***		1.832*	
Study Law	.280***		1.468	
Study Social	.425***		1.083	
Study Medical	.583**		1.018	
Study Econo-my/Business	.556***		1.183	
Study Arts	.369***		1.410	
Study Humanities	.378***		.985	
Study Other	.403***		.901	
Occupation Other (REF)				
Occupation Technical		1.842***		1.043
Occupation Creative		.543***		1.127
Eindhoven region (Amsterdam=REF)	1.848***	1.753***	1.036	1.171
Constant	*1.342*	*0.812*	*0.379**	*0.327***
Model fit *Nagelkerke* R^2	*0.197*	*0.199*	*0.04*	*0.04*
*** p <0.1 ** p<0.05 *** p<0.01**				

Table 5.5 Logistic regression; housing characteristics continued

	Model 7a	Model 7b
Dependent variables	prefers (semi)detached	prefers (semi)detached
Independent variables		
Gender=female	0.834	0.961
Age	0.970***	0.970***
Country of birth = foreign	0.776	0.744*
Couple household		
Household with children	1.500***	1.609***
Single-person household	0.474***	0.491***
Masters or PhD degree	0.775**	0.794*
Higher-educated parents	0.929	0.928
Higher income	1.692***	1.710***
Lower income	0.438***	0.401***
Study Science/Technical (REF)		
Study Architecture		0.273***
Study Law		0.273***
Study Social		0.343***
Study Medical		0.471***
Study Economy/Business		0.703**
Study Arts		0.647
Study Humanities		0.467***
Study Other		0.558*
Occupation Other (REF)		
Occupation Technical	1.987***	
Occupation Creative	0.778	
Eindhoven region (Amsterdam=REF)	2.247***	2.425***
Constant	0.986	1651
Model fit Nagelkerke R^2	0.256	0.286
*** p <0.1 ** p<0.05 *** p<0.01**		

5.6 Urban Amenities

Table 5.6 shows four models that describe the estimation of the importance of specific urban amenities. In these four models (8-11) only the effect of sector of work is included (for study the effects are similar). Remarkably gender appears to be a particularly important predictor for indicating amenities such as speciality shops, restaurants, and offer of museums and theatre plays as important to have in the neighbourhood or in the wider region. Women seem to value these amenities higher than men. Also quite interestingly the offer of museums and restaurants and bars in the neighbourhood are more important for respondents who were born outside of the Netherlands (for a detailed investigation of international workers see reports HELP International work package 1 and 4).

Perhaps not surprisingly, families with children are less concerned with restaurants and speciality shops than other households. Higher educated find them more important.

The differences between the groups are not significantly different for all amenities but generally, creative workers are more likely to indicate that the urban amenities are important, while technical workers clearly have a lesser penchant to deem these amenities important. Particularly the offer of museums are valued very differently by the two groups.

Table 5.6 Urban Amenities

	Model 8	Model 9	Model 10	Model 11
Dependent variables	Restaurants (very) important	Theater (very) important	Museum (very) important	Speciality shops (very) important
Independent variables				
Gender=female	1.591***	2.378***	2.174***	1.368**
Age	.971***	1.043***	1.050***	.992
Country of birth = foreign	1.517***	.861	1.966***	1.082
Couple household (REF)				
Household with children	.630***	1.006	.846	.673***
Single-person household	.757*	.826	1.090	.785
Masters or PhD degree	1.241*	1.343**	1.493***	1.064
Higher-educated parents	.842**	1.086	1.072	1.020
Higher income	1.170	1.240	1.077	1.340**
Lower income	1.078	1.148	.824	1.089
Occupation Other (REF)				
Occupation Technical	1.085	.670***	.504***	.773*
Occupation Creative	1.872***	1.337	2.110***	1.424*
Eindhoven region (Amsterdam=REF)	.547***	1.023	.561***	.581***
Constant	8.802***	0.139***	0.085***	3.220***
Model fit *Nagelkerke* R^2	*0.107*	*0.15*	*0.256*	*0.07*
*** p <0.1 ** p<0.05 *** p<0.01**				

5.7 Location aspects

The two aspects of residential location that differed between technical and creative workers which stood out were a preference to live close to the city centre and to live close to work. In Table 5.7 the effects of employment group on the likelihood to include these two aspects among the most important aspects of housing are summarized. As becomes clear, households with children take a lesser interest in living close to the city centre compare to other household types. Interestingly both higher income groups as well as the academically skilled respondents express a stronger preference for inner-city living. Finally, the technical workers have a significantly smaller pre-frence for living close to the city centre, whereas creative workers have a much stronger tendency to include this locational aspect among their priorities.

For living close to work the opposite applies: here technical workers have a greater chance of including this aspect among their key preferences. Creative workers however, do not differ from other workers. Apart from this distinction some of the control variables have an interesting ef-fect: both singles and families with children have a stronger preference for living close to work than couples. Another clear effect is caused by the region in which people work: Eindhoven region workers express a greater importance to live close to work than respondents form the Amsterdam region.

Table 5.7 Locational aspects

	Model 12	Model 13
Dependent variables	Close to city centre	Close to work
Independent variables		
Gender=female	0.995	1.032
Age	0.997	0.984**
Country of birth = foreign	0.687*	0.984
Couple household		
Household with children	0.525***	1.316*
Single-person household	1.166	1.371*
Masters or PhD degree	1.483***	1.023
Higher-educated parents	0.916	1.124
Higher income	1.629***	0.983
Lower income	0.856	0.879
Occupation Other (REF)		
Occupation Technical	0.666**	1.398**
Occupation Creative	2.466***	0.932
Eindhoven region (Amsterdam=REF)	0.918	1.562***
Constant	0.470***	0.168***
+Model fit Nagelkerke R^2	0.08	0.048
*** p <0.1 ** p<0.05 *** p<0.01**		

5.8 reasons for moving to urban regions

The final section of this chapter addresses the main reasons why people moved to the urban region. As we know from the literature, 'soft factors' here modelled as social and cultural atmosphere are generally more important for creative workers. This is confirmed in model 14 (table 5.8). Technical workers have a much smaller chance of indicating this as the main reason for moving to the area. For creative workers, to the contrary this is much more often a reason than for the average higher educated worker. Also, for the Amsterdam region this reason is clearly more often mentioned. Of the control variables the only two significant effects are age and single households. Remarkably age correlates negatively. This could perhaps be partly explained by the fact that singles, who are generally younger, have a much higher propensity to indicate the social and cultural atmosphere as important.
The final model tests the chance of indicating work and study as main reason for moving into the region. Here there is no effect of employment sector. All groups seem to indicate this to a similar degree. Some of the control, variables have a clear and quite strong effect: academically skilled workers move often move to the region because of work or study. This is also the case for foreign born workers. Women have a smaller chance of mentioning work and study as the prime reasons.

Table 5.8 reasons for moving to the Amsterdam or Eindhoven region

	Model 14	Model 15
Dependent variables	Social and cultural atmosphere	Work/study
Independent variables		
Gender=female	.956	.717 ***
Age	.983*	1.008
Country of birth = foreign	.909	1.716***
Couple household		
Household with children	1.113	.812*
Single-person household	1.825**	1.172
Masters or PhD degree	1.052	2.199***
Higher-educated parents	.946	1.283***
Higher income	1.439	1.031
Lower income	1.031	.766
Occupation Other (REF)		
Occupation Technical	.302***	1.109
Occupation Creative	2.094***	1.160
Eindhoven region (Amsterdam=REF)	.446***	1.136
Constant	.638	.135
+Model fit Nagelkerke R^2		
*** p <0.1 ** p<0.05 *** p<0.01**		

6. Conclusions

6.1 To what extent do housing preferences differ between technical workers, creative workers and other higher educated workers ?

The first key question of this research project aims to fill a knowledge gap in international literature on residential preferences of higher educated workers. Despite the wide body of literature about the creative class and their residential preferences only few studies have investigated the different residential preferences of groups *within* the creative class. Even fewer addressed this issue by focusing on the trade-offs between various aspects of housing, in particular the residential milieu, aspects of the dwelling and the situational location. By focussing on the differences between creative workers and technical workers and comparing them also a category of higher educated workers in a variety of sectors, this research contributed to the existing literature on this issue.

The residential preferences were found to differ mainly on four dimensions: housing type, residential milieu, relative location, and importance of specific amenities. Of course these dimensions are highly inter-related, but they seem to constitute independent factors in their own right. What is more important is that the combination of these dimensions also seem to point in the same direction: the combination of housing type, amenities, location and milieu constitute a residential orientation that is a compound of the various aspects.

Technical workers have a clear preference for (semi-)detached housing; while creative workers have a stronger orientation to apartments. Also when they have to make a deliberate trade-off, creative workers more frequently indicate that they rather have a small urban apartment than a large suburban house. For technical workers this is the opposite. In terms of amenities clear differences between the worker groups exist: creative workers consider the offer of cultural amenities such as theatre, museums and concerts much more important than technical workers. In the ranking of different priorities, however, these are less important than aspects of the dwelling and locational characteristics. Particularly a location close to the city centre is evidently a greater priority for creative workers than for technical workers. The latter group, ascribes greater meaning to living closer to work. Finally, in terms of residential milieu, creative workers and technical workers also show considerable differences. Technical workers have clearly a more suburban preference compared to other workers, while creative workers tend to favour urban milieus. The combination of housing type, amenities, location and milieu point to a differentiated residential orientation of the two main groups of workers, also compared to the reference category. As some of the analyses with field of study in Chapter 5 have suggested, the dichotomy technical and creative workers could be further nuanced by looking at a further differentiation within higher skilled workers. Some graduates -of architecture of humanities for instance- have very specific residential orientations. Although it was not within the scope of this study to unravel this complexity, it

should be an avenue for further research. This fits with broader debates about the fragmentation of the middle classes and the kaleidoscopic pattern of residential milieus of increasingly polycentric urban regions.

6.2 To what extent do housing preferences differ between creative workers and technical workers in Amsterdam and Eindhoven?

The second question of this research focuses on the differences between the Amsterdam and Eindhoven region. First of all, many of the found differences between technical and creative workers hold true for both research areas. The differences between the two regions in terms of the residential preferences of various worker groups are relatively small. This makes the findings thus more robust, since they are not necessarily linked to the sampling in one specific geographical area. Nonetheless, some interesting differences between the regions came to the fore:
In general, the respondents from the Amsterdam region have a relatively mixed background. Reflecting the diverse structure of the Amsterdam regional economy, workers with all kinds of background training were sampled in Amsterdam and its suburbs, who have a quite differentiated residential orientation. In Eindhoven a vast majority is employed in technical companies, which are logically related to the concentration of these kinds of economic activities in the Eindhoven region. On average, respondents in Eindhoven are more suburban in their orientation. Furthermore, they also have a stronger preference for (semi-)detached housing and are much less interested in urban amenities. It thus seems that respondents in the urban region of Eindhoven are generally less urban in their orientation that those from the Amsterdam region. This could be related to selection effects: Eindhoven and its region have a large spectrum of suburban milieus and have only a relatively small number of urban milieus. The region may thus attract only a relatively small of urban-oriented dwellers. For the Amsterdam region the opposite might apply. Interestingly, in Eindhoven some of the differences between technical and creative workers are more sharp than in Amsterdam. When asked to rank the areas in the region, the creative workers in Eindhoven were even more orientated towards the inner-city milieus than the creative in Amsterdam. This may also be related to the structure of the regional housing market in which the inner-city of Eindhoven and Strijp S are perhaps the only urban environments of the region, whereas in Amsterdam there are much more options. The outcomes thus seem to suggest that the share of people with a strong urban orientation in Eindhoven is relatively small, due to composition effects (overrepresentation of technical workers) and the structure of the regional housing market (overrepresentation of suburban housing and suburban or rural milieus). The findings seem to suggest for Amsterdam that the mix of various residential milieus fits the differentiated residential preferences of various groups. Yet, housing affordability is a bigger issue than in Eindhoven, which constrains some higher educated workers with relatively low incomes (mainly young households) in their residential choice.

6.3 Discussion

In the ongoing debate about the residential preferences of the creative class, the evidence for a specifically urban orientation of creative and knowledge workers has been ambiguous. One of the

most extensive comparative research projects, the ACRE project, found little evidence for a significantly different residential orientation of 'creative and knowledge workers' compared to other higher educated workers. The ACRE project found that the importance of 'classic' factors such as work, life course and social networks trumps soft factors for residential choices. In this research project we found evidence that confirms these findings from the ACRE project (Bontje et.al., 2008; Musterd & Murie, 2010) and also other studies arguing this (Lawton et.al., 2013; Niedomysl & Hansen, 2010). Nonetheless, this research, adopting a more fine-tuned approach and drawing on a specific sample, provides also evidence that does support some of the original claims of Florida (2002), which were not demonstrated in ACRE. In line with studies such as Kotkin (2000) Musterd (2006) and Markusen (2006), specific groups of higher-educated workers do show distinct residential preferences. The association between high-tech and ICT workers and suburban preferences suggested in (Kotkin, 2000) and Van Oort et.al. (2003) is also confirmed in this study. Workers in creative industries and people with a humanities, arts or social study background are in this study identified as relatively urban in their orientation. This is a patterns that has been suggested in a range of earlier studies (De Wijs Mulkens, 1999, Musterd, 2006; Markusen, 2006)

This study suggests that the mixed evidence about the residential preferences of the creative class may be the result of different research designs and questions and also may result from different categorisations and definitions what is meant with the creative class. This also applies to the present study: If the technical and creative workers had been lumped together and compared to other higher educated workers, this research would have concluded that no specific residential orientation could be identified. The merit of this report therefore lies in the differentiation of residential preferences that it has demonstrated. The analyses conducted with different academic backgrounds, the fields of study, suggest an even greater variation within the higher educated workforce in both urban regions.

Here we explicitly connect the finding to the international literature of the rise of the new middle class and gentrification. As Bridge (2006) and Butler & Robson (2003) and others have convincingly shown the middle classes, particularly in larger metropolitan areas, are internally differentiated. Various subgroups, 'habituses' or 'class fractions', have different occupational trajectories, different consumption tastes and follow other residential trajectories. For specific subgroups, who are sometimes labelled the 'liberal' or 'cultural' fractions of the middle class, inner-city millieus offer a residential environment that suits their life style. Gentrification is a specific class-driven process in which some members of the middle class play a crucial role but other members of the middle class only marginally or temporarily participate. The majority of the middle classes, certainly in later stages of the life course (family formation) have still a strong orientation towards the suburbs. Most higher educated workers, who are referred to as the traditional middle classes in most of Butler and Bridge's work, move into suburban homeownership when they found a family. This study confirms the general impression from gentrification literature that mainly workers in creative sectors are the most consistent gentrifiers, also when they have children (Boterman, 2013).

6.4 Recommendations

This research has identified a clear differentiation of residential preferences between different worker groups. Although they are all higher educated and work in two major urban regions a majority of the respondents does not have particularly urban preferences.

This is the first observation that may help policy makers: not all higher educated workers in what is referred to as knowledge-intensive or creative industries want to live in urban milieus. The sub-urban and rural milieus within urban regions also play a crucial part in housing for these workers.
A second key observation from this research which has implications for the way in which policy makers view the urban housing market as a tool for attracting desired workers is the following: This research confirms earlier findings from other projects (notably ACRE) that housing may play a role for the specific locations within a region where different groups settle, but it seems to play only a minor role in attracting workers to a region in the first place. Building specific housing to attract higher educated workers may hence not be the most fruitful strategy. It seems to be more useful to attract businesses and create good transport connections.
The third key finding of this study concerns the difference between the residential preferences of workers in high tech industries and in creative industries. The economic profile of an urban region and the type of workers employed in these sectors has a clear effect on the general residential preferences of the inhabitants of the region. If this research correctly asserts that technical workers –on average- tend to prefer suburban environments, it would imply that creating inner-city environments in city regions with a typically technically skilled workforce, such as Eindhoven, is not necessarily a good idea. However, if the profile of economic activities in urban regions such as Eindhoven is changing, it may be wise to anticipate these changes.
For the workers employed in creative sectors, urban living is clearly a more attractive option. In high-demand areas such as the inner-city of Amsterdam, a mismatch may arise between housing opportunities and preferences. In the Amsterdam region, the share of workers that currently lives rather peripherally but has an urban orientation nonetheless is not very large, but they exist. If the affordability of the inner-city decreases this groups may increase. Paradoxically, current policies that aim at reducing social rent in order to 'open' the market to serve the housing interests of higher educated 'middengroepen' may produce the opposite effect for low-income creative workers. Even though this research focussed on a relatively well-established section of the creative industries, a considerable share of the sample had no so high incomes and expressed concerns about housing affordability. Particularly young creative workers, especially in sectors where wages are lower could have difficulties finding adequate housing.

7. Nederlandse samenvatting

7.1 Inleiding

In de internationale literatuur over de woonvoorkeuren van 'kenniswerkers' woedt er al enige jaren een debat over de vraag of werknemers in kennisintensieve en creatieve sectoren een specifiek stedelijke voorkeur hebben. Ze zouden worden aangetrokken door specifiek stedelijke voorzieningen zoals bijvoorbeeld uitgaansmogelijkheden, musea en theatervoorstellingen. Bovendien zouden zij prijs stellen op de diversiteit die stedelijke gebieden eigen is en ook graag in apartmenten wonen. Er is veel onderzoek gedaan naar de vraag wat er een rol speelt in het aantrekken van deze groepen tot stedelijke gebieden, maar de conclusies zijn niet eenduidig. Er is wel veel beleid geformuleerd dat stoelt op sommige van deze inzichten.
Dit onderzoek is opgezet met als doel om een aantal vragen die ons inziens nog niet goed uitgezocht zijn te beantwoorden. Hiertoe hebben we een studie opgezet die expliciet twee contrasterende groepen hoogopgeleide werknemers met elkaar, en met een referentiegroep vergelijkt. Door deze vergelijking op dezelfde manier te organiseren in twee stedelijke regio's, Amsterdam en Eindhoven, wordt de vergelijking verder betrouwbaar gemaakt. Bovendien dient deze regionale selectie nog een ander belangrijk doel. Door middel van een vergelijkende studie tussen deze twee regio's is het ook mogelijk om te onderzoeken of er een verschil is tussen de woonvoorkeuren van hoogopgeleiden in stedelijke regio's met contrasterende economische profielen.
De twee hoofdvragen van het onderzoek zijn:

1) In hoeverre verschillen de woonvoorkeuren tussen werknemers in technische en creatieve sectoren ten opzichte van elkaar en ten opzichte van andere hoogopgeleiden?
2) In hoeverre verschillen de woonvoorkeuren tussen werknemers in technische en creatieve sectoren tussen Amsterdam en Eindhoven?

7.2 Methodes

Het onderzoek is gehouden onder verschillende hoogopgeleide groepen: ten eerste werknemers van twee high-tech bedrijven: ASML Lithography in Veldhoven in de Eindhoven regio en Shell Technology Centre in Amsterdam Noord. De tweede groep is gerekruteerd onder werknemers van reclamebureaus in Amsterdam en Eindhoven. Verder zijn er via bewonerspanels in Amsterdam, Almere en Eindhoven hoogopgeleide werknemers in beide regio's benaderd. Tenslotte zijn er ook nog internationale werknemers geselecteerd via de expat centres van beide steden. Uiteindelijk zijn er 2802 mensen bereid gevonden om aan de enquête te beginnen en hebber er 1835 respondenten de enquête volledig ingevuld. De enquête was online te bereiken, maar men is er via interne communicatie (ASML, Shell; Expat Centre), via flyers (Shell, reclamebureaus) of via de onlinepanels (bewonerspanels) op gewezen. De flyers zijn verspreid door enquêteurs van Bureau

Onderzoek en Statistiek van de gemeente Amsterdam. De dataset is opgeschoond en uitvoerig bewerkt voorafgaand aan de analyse. Alle respondenten zijn op basis van hun werkzaamheden en opleidingsrichting ingedeeld in verschillende studieachtergronden en de sector waarin ze actief zijn. Er zijn door deze bewerking 767 technische werknemers; 223 creatieve werknemers en 777 werknemers in andere sectoren (de referentiegroep). De data zijn uiteindelijk gebruikt voor lineaire en logistische regressieanalyse waarin verschillende aspecten van woonvoorkeuren van de groepen onder de loep zijn genomen.

7.3 Contrasterende woonvoorkeuren van hoogopgeleiden

Uit de analyses is gebleken dat werknemers uit verschillende sectoren andere woonvoorkeuren hebben. Werknemers van bedrijven in de technologische sector wijken op een aantal manieren af in hun woonvoorkeuren van werknemers in creatieve sectoren. Meestal neemt de referentiegroep van overige hoogopgeleiden een middenpositie in tussen beide groepen. In dit onderzoek worden woonvoorkeuren gezien als bestaande uit verschillende facetten. Enerzijds zijn er de kenmerken van de woning zelf: de grootte, het type, en het eigendom bijvoorbeeld. Anderzijds zijn er kenmerken van de directe woonomgeving (de buurt) en de wijdere omgeving: de bevolkingssamenstelling, of het druk is of juist rustig, enzovoort. Tenslotte onderscheidt dit onderzoek ook nog de relatieve locatie van de woning ten opzichte van bijvoorbeeld werk, vrienden en bepaalde voorzieningen. Natuurlijk hangen deze elementen met elkaar samen en bestaat er vaak ook een logisch verband tussen de keuze voor de afzonderlijke elementen.
Op het gebied van eigendom bestaat er geen duidelijk verschil tussen de groepen: een ruime meerderheid van de hoogopgeleiden heeft een voorkeur voor eigenwoningbezit. Ook vinden de meesten een ruime woning prettig en is de behoefte aan een tuin niet duidelijk gedifferentieerd. Het type woning dat wordt geprefereerd is wel verschillend: creatieve kenniswerkers hebben in veel grotere mate een voorkeur voor appartementen, terwijl technische werknemers in meerderheid juist een twee-onder-een-kap woning of vrijstaand huis zouden willen.
Ten aanzien van de voorzieningen in de buurt en in de stedelijke regio is er zowel een brede consensus ten aanzien van sommige facetten: veiligheid, rust, groen, maar is er minder overeenstemming in de mate waarin specifieke voorzieningen worden geapprecieerd en geprioriteerd. Creatieve kenniswerkers hechten veel meer waarde aan culturele voorzieningen zoals musea, theater en gespecialiseerde detailhandel, al zijn deze voor hen ook van secundair belang.
Wat betreft de locatie geven technisch geschoolden aan dat een locatie dicht bij werk belangrijk is, terwijl dit voor creatieve werkers een minder belangrijk punt is. Werknemers in de creatieve sectoren geven juist aan dat een locatie nabij of in het centrum voor hen belangrijk is. Dit laatste punt komt ook naar voren in de analyse van de woonmilieus. Door te vragen naar een rangschikking van foto's van woonomgevingen en van woonlocaties binnen de twee stedelijke regio's is er onderzocht welke groepen prijs stellen op welke type woonmilieu. Er bestaat een zeer duidelijk verschil tussen de creatieve en technische groepen, die op hun beurt ook afwijken van de referentiecategorie van overig hogeropgeleiden. Creatieve werknemers hebben een duidelijke voorkeur voor stedelijke milieus, terwijl de technische werknemers juist een sterk suburbane oriëntatie hebben. Dit verschil is waarneembaar in beide stedelijke regio's, al zijn er wel enkele verschillen.

7.4 Stedelijke regio's vergeleken

In beide stedelijke contexten is er dus een verschil tussen de technische en de creatieve werknemers. De respondenten in de Eindhovense regio zijn gemiddeld genomen wel iets minder stedelijk dan in de Amsterdamse regio. Ten eerste zijn de respondenten uit de regio Eindhoven sterker geneigd om een vrijstaande of twee-onder-een-kap woning te prefereren dan de respondenten uit de regio Amsterdam. Ten tweede zijn de Eindhovense respondenten veel minder geneigd om culturele voorzieningen belangrijk te vinden. Ook geven ze vaker aan om dicht bij hun werk te willen wonen. In de woonmilieu analyses komen respondenten in Eindhoven ook veel suburbaner en minder stedelijk voor de dag. Aangezien er gecontroleerd is voor het effect van beroep en andere factoren is dit niet te wijten aan een compositie-effect. Omdat de Eindhovense regio een hoger aandeel technische werknemers kent (die ook deze woonvoorkeuren heeft) is in werkelijkheid is dus nog een veel groter deel van de respondenten in de regio suburbaan georienteerd. Het verschil is mogelijk te verklaren door een selectie-effect: werknemers in de regio Amsterdam zijn ten dele naar de regio gekomen juist vanwege het aanbod aan stedelijke woonmilieus, terwijl dat voor Eindhoven minder het geval is. Tegelijkertijd zijn er in Eindhoven en omgeving maar een beperkt aantal stedelijke milieus en hebben degenen die op zoek zijn naar een dergelijk woonmilieu dus weinig keus in de Eindhovense regio. Interessant is dat juist ten aanzien van de stedelijke woonmilieus die er in Eindhoven zijn (Binnenstad, Strijp S) er een groter contrast is tussen creatieve en andere werknemers. Blijkbaar hebben deze woonmilieus een groot distinctief potentieel in de regio Eindhoven.

7.5 Aanbevelingen

Hoewel alle onderzochte respondenten hoger zijn opgeleid en werken in twee grote stedelijke regio's heeft de meerderheid geen stedelijke voorkeuren. Dit is een eerste observatie die beleidsmakers ter harte zouden moeten nemen: niet alle hoogopgeleiden in kennisintensieve of creatieve sectoren willen in de stad wonen. Suburbane en landelijke milieus binnen stedelijke regio's spelen ook een cruciale in de huisvesting voor deze werknemers.
Een tweede belangrijke bevinding van dit onderzoek die gevolgen zou kunnen hebben voor de manier waarop beleidsmakers de stedelijke woningmarkt als een instrument voor het aantrekken van de gewenste werknemers zien, is de volgende: dit onderzoek bevestigt eerdere bevindingen van andere projecten (met name uit het ACRE-project (Musterd & Murie, 2010)) dat huisvesting een rol speelt in de specifieke locaties binnen een regio waar verschillende groepen zich vestigen, maar het lijkt slechts een kleine rol spelen in het *aantrekken* van werknemers naar een regio. Het bouwen van specifieke huisvesting om daarmee hoogopgeleide werknemers aan te trekken is vermoedelijke niet de meest vruchtbare strategie. Het is wellicht nuttiger om werkgelegenheid bevorderen door het aantrekken van specifieke bedrijvigheid door middel van goede publieke voorzieningen en vervoersverbindingen.
De derde belangrijke conclusie van dit onderzoek betreft het verschil tussen de woonvoorkeuren van de werknemers in high-tech industrie en in de creatieve industrie. Het economisch profiel van een stedelijke regio en de aard van de werknemers in deze sectoren heeft een duidelijk effect op de woonvoorkeuren van de inwoners van de regio. Dit onderzoek laat zien dat technische werknemers gemiddeld naar suburbane omgevingen neigen. Dit zou betekenen dat het creëren van hoogstedelijke woonmilieus in stedelijke regio's met een aanbod van voornamelijk technisch-

geschoolde arbeidskrachten, zoals Eindhoven, niet per se een goed idee is. Echter, als het economische profiel in stedelijke regio's als Eindhoven zou veranderen, kan het verstandig zijn om op deze veranderingen te anticiperen.
Voor de werknemers in creatieve sectoren is stedelijk wonen duidelijk een aantrekkelijkere optie. In gebieden met een grote druk op de woningmarkt zoals de binnenstad van Amsterdam, kan een mis-match ontstaan tussen woonvoorkeuren en het aanbod. In de regio Amsterdam is het aandeel van de werknemers dat een stedelijke oriëntatie heeft, maar toch perifeer woont niet erg groot, maar ze bestaan wel. Als de betaalbaarheid van de binnenstad verder onder druk komt te staan zou deze groep wel kunnen groeien. Paradoxaal genoeg kan het huidige beleid dat gericht is op vermindering van de sociale huur om juist de woningmarkt ‘open te gooien’ voor hoger opgeleide 'middengroepen' het tegenovergestelde effect sorteren. Hoewel dit onderzoek zich richtte op een relatief gevestigd deel van de creatieve industrie, had een aanzienlijk deel van de steekproef een betrekkelijk laag inkomen uitten zij hun bezorgdheid over de betaalbaarheid van woningen. Vooral jonge creatieve werknemers, met name in sectoren waar de lonen lager liggen, zouden in de toekomst steeds moeilijker aan adequate huisvesting kunnen komen.

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Appendix: questionnaire

First part: Household, dwelling and neighbourhood.

1. **Which of the following statements applies best to your situation: (Amsterdam)**

□ I came to live in the Amsterdam region because of my work
□ I came to live in the Amsterdam region because of my partner and family
□ I looked for a job in the Amsterdam region because I grew up here
□ I looked for a job in the Amsterdam region because I already lived here and I didn't want to leave
□ I looked for a job in the Amsterdam region because I could get a house in the Amsterdam region
□ I came to live in the Amsterdam region because I like the social and cultural atmosphere
□I came to live in the Amsterdam region because of another reason

□ I don't live in the Amsterdam region, but I do work there **(go to question 8)**

2. **Which of the following statements applies best to your situation: (Eindhoven)**

□ I came to live in the Eindhoven region because of my work
□ I came to live in the Eindhoven region because of my partner and family
□ I looked for a job in the Eindhoven region because I grew up here
□ I looked for a job in the Eindhoven region because I already lived here and I didn't want to leave
□ I looked for a job in the Eindhoven region because I could get a house in the Eindhoven region
□ I came to live in the Eindhoven region because I like the social and cultural atmosphere
□I came to live in the Eindhoven region because of another reason

□ I don't live in the Eindhoven region, but I do work there **(go to question 8)**

3. **How long have you been living in (the region of) Amsterdam (Amsterdam)** ..... year(s)

4. **How long have you been living in (the region of) Eindhoven (Eindhoven)** ..... year(s)

5. In which country and town did you grow up? (where did you live throughout (most of your) childhood)

……

6. What is your current postal code? □□□□ □□

7. For how long have you been living at your current address? ……
Year/month

8. For how long have you been living in The Netherlands? …….years

9. What is your country of birth?

10. What is your nationality?……..

11. What is the nationality of your partner?…….

12. Do you or your partner have any close relatives… (Amsterdam)

In Amsterdam?	□ yes	□ no
In the Amsterdam region?	□ yes	□ no
In the Netherlands?	□ yes	□ no

13. Do you or your partner have any close relatives… (Eindhoven)

In Eindhoven?	□ yes	□ no
In the Eindhoven region?	□ yes	□ no
In the Netherlands?	□ yes	□ no

14. Do you or your partner you have any good friends … (Amsterdam)

In Amsterdam?	□ yes	□ no
In the Amsterdam region?	□ yes	□ no
In the Netherlands?	□ yes	□ no

15. Do you or your partner you have any good friends … (Eindhoven**)**

In Eindhoven?	□ yes	□ no
In the Eindhoven region?	□ yes	□ no
In the Netherlands?	□ yes	□ no

The next questions are about the characteristics of your current dwelling

16. How many bedrooms are there in your home?

…… bedrooms
18b How many square meters does your current home measure?
…… m²

17. What type of dwelling do you live in?

□ Apartment (upper level)
□ Apartment (ground level)
□ Terraced house/row house
□ Semi-detached
□ Detached house

□ Other, namely……

18. Do you own your home, or do you rent?

□ I own my home
□ I rent my home in the private sector
□ I rent my home from a housing association

□ Other, namely……

19. What are your net monthly expenses on housing
***Monthly rent / mortgage payments, after tax benefits (huursubsidie, hypotheekrenteaftrek)*?**

□ less than 366 euros
□ 366-664 euros
□ 664 euro to 1000 euros
□ 1000 euro to 1500 euros
□ more than 1500 euros

20. Could you characterise your neighbourhood in three key words?
(for instance: green, quiet, homogeneous)

…… …… ……

21. Could you indicate how satisfied you are with the following amenities/aspects of the Amsterdam region? Please mark with a number from 1 to 10 (1= very poor, 10 = excellent) (Amsterdam)

Access by car/parking space	
Access by public transport	
Availability of affordable housing (of the type you prefer)	
Public green areas	
Offer of museums	
Offer of classical concerts	
Offer of pop/jazz concerts	
Offer of theatre plays	
Daily groceries stores (bakery, butcher, supermarket)	
Restaurants, cafés and bars	
Speciality food shops (wine shop, delicatessen, organic food)	
Composition of population	
Public safety	

22. Could you indicate how satisfied you are with the following amenities/aspects of the Eindhoven region? Please mark with a number from 1 to 10 (1= very poor, 10 = excellent) (Eindhoven)

Access by car/parking space	
Access by public transport	
Availability of affordable housing (of the type you prefer)	
Public green areas	
Offer of museums	
Offer of classical concerts	
Offer of pop/jazz concerts	
Offer of theatre plays	
Daily groceries stores (bakery, butcher, supermarket)	
Restaurants, cafés and bars	
Speciality food shops (wine shop, delicatessen, organic food)	
Composition of population	
Public safety	

23. Could you indicate how important it is for you to have these amenities in / aspects of the region?

Access by car/parking space	□ very important	□ important	□ not so important	□ unimportant
Access by public transport	□ very important	□ important	□ not so important	□ unimportant
Public green areas	□ very important	□ important	□ not so important	□ unimportant
Offer of museums	□ very important	□ important	□ not so important	□ unimportant
Offer of classical concerts	□ very important	□ important	□ not so important	□ unimportant
Offer of pop/jazz concerts	□ very important	□ important	□ not so important	□ unimportant
Offer of theatre	□ very important	□ important	□ not so important	□ unimportant
Daily groceries stores (bakery, butcher, supermarket)	□ very important	□ important	□ not so important	□ unimportant
Restaurants, cafés and bars	□ very important	□ important	□ not so important	□ unimportant
Speciality food shops (wine shop, delicatessen, organic food)	□ very important	□ important	□ not so important	□ unimportant
Composition of population	□ very important	□ important	□ not so important	□ unimportant
Public safety	□ very important	□ important	□ not so important	□ unimportant

24. Could you indicate how <u>satisfied</u> you are with the following amenities in /aspects of your neighbourhood? Please mark with a number from 1 to 10 (1= very poor, 10 = excellent)

Access by car/parking space	
Access by public transport	
Availability of affordable housing (of the type you prefer)	
Public green areas	
Daily groceries stores (bakery, butcher, supermarket)	
Restaurants, cafés and bars	
Speciality food shops (wine shop, delicatessen, organic food)	
Composition of population	
Public safety	
Sports facilities	

25. Could you indicate how important the following points are for you in respect to your neighbourhood?

Access by car/parking space	□ very important	□ important	□ not so important	□ unimportant
Access by public transport	□ very important	□ important	□ not so important	□ unimportant
Public green areas	□ very important	□ important	□ not so important	□ unimportant
Daily groceries stores (bakery, butcher, supermarket)	□ very important	□ important	□ not so important	□ unimportant
Restaurants, cafés and bars	□ very important	□ important	□ not so important	□ unimportant
Speciality food shops (wine shop, delicatessen, organic food)	□ very important	□ important	□ not so important	□ unimportant
Composition of population	□ very important	□ important	□ not so important	□ unimportant
Public safety	□ very important	□ important	□ not so important	□ unimportant
Sports facilities	□ very important	□ important	□ not so important	□ unimportant

Obviously this list with amenities is by no means complete. There are many aspects of your neighbourhood and the city region that could also be very important to you.

26. Are there any, other than those mentioned above, aspects or amenities of the neighbourhood that are important to you?

1……

2……

3……

27. Are there any, other than those mentioned above, aspects or amenities of the Amsterdam region that are important to you? (Amsterdam)

1……

2……

3……

28. Are there any, other than those mentioned above, aspects or amenities of the Eindhoven region that are important to you? (Eindhoven)

1……

2……

3……

Second part: Education and Work

29. What is your gender? ……..

30. How many people are in your household, including you?
Afhankelijk van aantal volgende vraag op aan laten sluiten

31. What is your age and that of the members of your household?

You ☐

(Partner) ☐

(Eldest child) ☐

(Youngest child) ☐

(Others)……. ☐

(Others)……. ☐

Routing: alle volgende vragen over de partner hierop aansluiten

32. What is your highest completed level of education?

- □ Primary school
- □ Lower secondary school
- □ Upper secondary school
- □ Higher vocational
- □ University (bachelors)
- □ University (masters)
- □ PhD

33. What and where did you study? (For example: *BA communication at University of Birmingham; MA communication at University of York*)

.....
.....

34. What is the highest completed level of education of <u>your partner</u>?

□ Primary school
□ Lower secondary school
□ Upper secondary school
□ Higher vocational
□ University (bachelors)
□ University (masters)
□ PhD

Vraag alleen voor 'higher vocational' en hoger

35. What and where did <u>your partner</u> study? (For example: *BA communication at University of Birmingham; MA communication at University of York*)

.....

36. What is the highest completed level of education of your father?

□ None
□ Primary school
□ Lower secondary school
□ Upper secondary school
□ Higher vocational
□ University (bachelors)
□ University (masters)
□ PhD

37. What is the highest completed level of education of your mother?

□ None
□ Primary school
□ Lower secondary school
□ Upper secondary school
□ Higher vocational
□ University (bachelors)
□ University (masters)
□ PhD

38. What is the gross annual income of your household before tax? (Your income and that of your partner together)

□ less than 12.000 Euros per year
□ 12.000 to 35.000 Euros per year
□ 35.000 to 50.000 Euros per year
□ 50.000 to 70.000 Euros per year
□ 70.000 to 100.000 Euros per year
□ 100.000 to 150.000 Euros per year
□ 150.000 to 200.000 Euros per year
□ More than 200.000 Euros per year

39. Which newspapers do you read regularly? (multiple answers possible)

□ I do not read any newspapers

□ New York Times
□ The Guardian
□ Le Monde
□ Frankfurter Algemeine Zeitung
□ Other international newspapers, namely……..

□ De Telegraaf
□ AD
□ De Volkskrant
□ NRC Handelsblad
□ NRC Next
□ FD
□ Trouw
□ Het Parool
□ Eindhovens Dagblad

□ Other, namely…….

40. Which political party do you support? (multiple answers possible)

□ I am not allowed vote and/or do not take an interest in Dutch politics (**go to question 41)**

□ CDA (Christian democrats)
□ PvdA (labour)
□ VVD (conservative liberals)
□ SP (socialist party)
□ PVV (Wilders) (nationalist)
□ Groen Links (greens)
□ Christen Unie (Christian conservative)
□ D66 (liberals)
□ SGP (Christian conservative)
□ PvdD (Party for the animals)

□ Other, namely ……..

41. How would you describe your political position / ideology: (for instance: conservative or liberal)

……

42. Do you or your partner own a car?

□ Yes, I own a……(please write down the brand and model)

□ Yes, several, a;……(please write down the brands and models)

And a: ……

□ No, but I do have a lease car
□ No, but I do have a subscription to a shared car (greenwheels, car2go, connectcar a.o.)
□ No, but I do have one at my disposal
□ No.

43. How many hours do you work per week (paid)?

Number of hours (You).....

44. How many hours does your partner work per week (paid)?

Number of hours (partner).....

45. How often do you work from home?

□ I (almost) always work from home
□ I often work from home
□ I work from home regularly
□ I sometimes work from home
□ I (almost) never work from home

46. How long does it take you and your partner to commute to work using the following transport modes:

	You	Your Partner
On foot	☐ minutes □ n.a.	☐ minutes □ n.a.
By bike	☐ minutes □ n.a.	☐ minutes □ n.a.
By car	☐ minutes □ n.a.	☐ minutes □ n.a.
By public transport	☐ minutes □ n.a.	☐ minutes □ n.a.

47. Please, describe as precisely as possible your profession, job, and the company/government branch you work for (for example: economist, data analyst at the sales department for Delta Lloyd)

.....

.....

.....

48. Please, describe as precisely as possible your partner's profession, job, and the company/government branch he/she works for (for example: economist, data analyst at the sales department for Delta Lloyd)

.....

.....

.....

49. For how long have you been working for your current employer (or yourself if you are self-employed)

……years/months

50. Could you indicate to what extent you agree with the following statements:

I could only do my job in Amsterdam/Eindhoven

□ I agree completely □ I agree □ Neutral □ I disagree □ I disagree completely

I would rather live in a big house in the suburbs than in a small apartment in the city

□ I agree completely □ I agree □ Neutral □ I disagree □ I disagree completely

My work is an important part of my identity

□ I agree completely □ I agree □ Neutral □ I disagree □ I disagree completely

My neighbourhood is an important part of my identity

□ I agree completely □ I agree □ Neutral □ I disagree □ I disagree completely

I feel at home in my neighbourhood

□ I agree completely □ I agree □ Neutral □ I disagree □ I disagree completely

I prefer to live in an area where most people are like me

□ I agree completely □ I agree □ Neutral □ I disagree □ I disagree completely

Third part: Moving Yes or No?

The next part will address the question whether you want to move or not and what your motivations are.

51. How do you assess the chance that you will move within the Netherlands in the next two years?

☐ **%**

(at more than 50% proceed to Q47; less than 50% proceed to Q48)

52. What is for you, or would be the most important reason(s) to move?
(multiple answers possible)

□ I would like to buy a house
□ I would like to rent
□ I would like a bigger home
□ I would like to live closer to my relatives or friends
□ I have been offered a job elsewhere by the same employer
□ I have found a job elsewhere
□ My partner has found a job elsewhere
□ I would like to live cheaper
□ I would like to leave this neighbourhood
□ I would like to leave this city/region
□ I would like to have a garden

□ Other, namely……..

53. What is, or would be the most important reason(s) <u>not</u> to move?
(multiple answers possible)

□ I am very attached to my home
□ I am very attached to my neighbourhood
□ I don't want to leave this town
□ I can't afford to move
□ I have my friends here
□ I have my relatives here
□ I live close to where I work
□ My children go to school here

□ Other, namely……...

54. How likely is it that you will move *outside the Netherlands* within the next two years?

☐ %

(at more than 50% proceed to Q48; less than 50% proceed to Q50)

55. What is, or would be the most important reason(s) to move away from the Netherlands?

□ Career opportunities elsewhere
□ Offered a job by same employer in another country
□ My partner has found/ is looking for a job in another country
□ Return to country of origin for personal or family related reasons
□ Do not like the economic and political climate of the Netherlands
□ Do not like the social and cultural climate of the Netherlands
□ Do not want to bring up my children in the Netherlands

□ Other……

56. Are you actively searching for a new home?
(multiple answers possible)

□ Yes, I search actively on the web or via newspapers
□ Yes, I have hired a real estate agent
□ Yes, I'm listed at Woningnet/Woonbedrijf
□ Yes, I search in other ways
□ No

57. If you were to move, would you rather rent or buy your home?

□ Buy
□ Rent in the private sector
□ Rent from a housing association
□ Other, namely…….

If you were to search for a home, what would your search criteria be?

58. What would be your price range? (*Select an under- and upper-limit by clicking the arrows).*

Asking Price

€ 200.000 | € 550.000

Rent per month

€ 300 | € 400

59. What neighbourhoods / towns would or do you consider? (Amsterdam)

□ My own current neighbourhood

□ A neighbourhood within the ring road in Amsterdam, namely……..

□ A neighbourhood elsewhere in Amsterdam, namely……

□ A municipality in the Amsterdam region*, namely……...

□ A municipality outside the Amsterdam region*, namely……..

□ Other, namely……..

60. What neighbourhoods / towns would or do you consider? (Eindhoven)

□ My own current neighbourhood

□ A neighbourhood within Eindhoven, namely……..

□ A neighbourhood elsewhere in the Eindhoven region, namely……

□ A municipality outside the Eindhoven region*, namely……...

□ Other, namely……..

61. What type of dwelling would you look for?

□ Apartment (upper level)
□ Apartment (ground level)
□ Terraced housing/row house
□ Semi-detached
□ Detached

□ Other, namely……

62. How many bedrooms and square meters floor area?

Minimal number of bedrooms…… minimal M²…….

When you move you will take the location, the neighbourhood and the aspects of your home into account. Often moving involves a trade-off between location and dwelling. The following questions will deal with these issues:

63. What are the most important issues with regard to the dwelling itself?

(Please rank the following points, 1 is most important, 7 is least important)

A. Private Garden

B. Building style and architecture

C. Owning my home

D. No up- or downstairs neighbours

E. Relatively low housing costs

F. Spacious dwelling (at least one spare (bed) room)

G. Free view

1……
2……
3……
4……
5……
6……
7……

64. With respect to your neighbourhood?

(Please rank the following points, 1 is most important, 7 is least important)

A. Composition of neighbourhood population

B. Public green areas and parks in the neighbourhood

C. Quiet residential environment

D. Bakery, butcher, green grocer at walking distance

E. Good restaurants, nice cafe's and bars in the neighbourhood

F. Good bookstore in the neighbourhood

G. Architecture and building period of the neighbourhood

1……
2……
3……
4……
5……
6……
7……

65. With respect to the location of your home?

(Please rank the following points, 1 is most important, 7 is least important)

A. Close to work

B. Close to the high way

C. Close to a public transport hub

D. Close to/in the city centre

E. Close to relatives

F. Close to friends

G. Close to nature areas

1……
2……
3……
4……
5……
6…….
7…….

66. What are for you the most important and decisive considerations of all aspects listed above?
Top 3 van vraag 63, 64 en 65 in beeld

1……
2……
3……

67. In which neighbourhoods/towns would you prefer to live and where would you rather not live? (Amsterdam)

(Please rank the following points, 1 is most attractive, 10 is least attractive)

A) Jordaan

B) Indische Buurt

C) Watergraafsmeer

D) IJburg

E) Buitenveldert

F) Almere/Hoofddorp

G) Abcoude

H) Bussum

I) Broek in Waterland e.o.

J) Haarlem

1……
2……
3……
4……
5……
6……
7…
8……
9…
10……

68. In which neighbourhoods/towns would you prefer to live and where would you rather not live? (Eindhoven)

(Please rank the following points, 1 is most attractive, 10 is least attractive)

A) Veldhoven

B) Binnenstad Eindhoven

C) Woensel Zuid

D) Best

E) Strijp S

F) Meerhoven

G) Brandevoort

H) Eersel

I) Geldrop

J) Binnenstad Helmond

1……
2……
3……
4……
5……
6……
7…
8……
9…
10……

69. Could you rank these residential environments:
(which do you find most attractive?)

1 (Most attractive)……
2……
3……
4……
5……
6……
7……
8……
9……
10……

Final remarks:

Would you have recommendations for the local or national government concerning your residential environment?

……
……
……
……
……
……
……
……
……
……

Do you have any suggestions or comments about the questionnaire?

……
……
……
……
……
……
……
……
……
……

Urban Regions in the Delta

Meer informatie

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