

Accessibility of the precariat on the housing market

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SUMMARY

Precarious employment is and will become more prevalent on the Dutch labor market. A precarious labor contract limits opportunities of Dutch residents as they face uncertainty and insecurity. The relationship between precarious labor situations and the housing market is not yet covered in Dutch context in academic literature. This research consists of a quantitative study in aiming to find the relationship between precarious labor contracts and the housing market. According to the researched literature, this form of employment brings uncertainty and insecurity to Dutch laborers and must therefore affect the latter in their decision-making. A sample of 134 Dutch survey respondents shows that there is a relation between labor contract and the different housing sectors. However, the type of housing does not seem to correlate with the type of housing of a precarious laborer. In addition, the respondents seem to presume their current labor contract as a restraint when wanting to move into a different house, compared to those in a permanent labor situation. Governments, municipalities and housing corporations should adjust their policies towards the precariat. Further research should collect a larger sample and use a multiple methods approach to investigate long term effects of precarious employment.

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1. INTRODUCTION

1.1. BACKGROUND

In a period of increasing instability in production and a globalizing economy, flexible labor is becoming more widely used by employers in the labor market (CBS, 2015; NOS, 2017). Flexible labor is associated with precariousness, which means a certain degree of uncertainty and insecurity towards an employee. Ester & Vinken (2000), predict that the use of flexible labor contracts will remain stable or will even increase in the future. As seen in figure 1, precarious jobs have indeed increased another 5% since 2000. Employees are left in more precarious labor situations, as there is no guarantee for a fixed and regular income, hours of work and a stable employment in the future. Being in a precarious labor situation relates to a larger picture in social science research: household decision-making (Kalleberg, 2009). Precariousness consequences families to either rent or buy a property. Since precarious employment is becoming more prevalent on the labor market, it will be likely that it has its effects on the ownership of different dwellings (buying vs renting). The type of ownership brings legal constraints following from their labor contract.

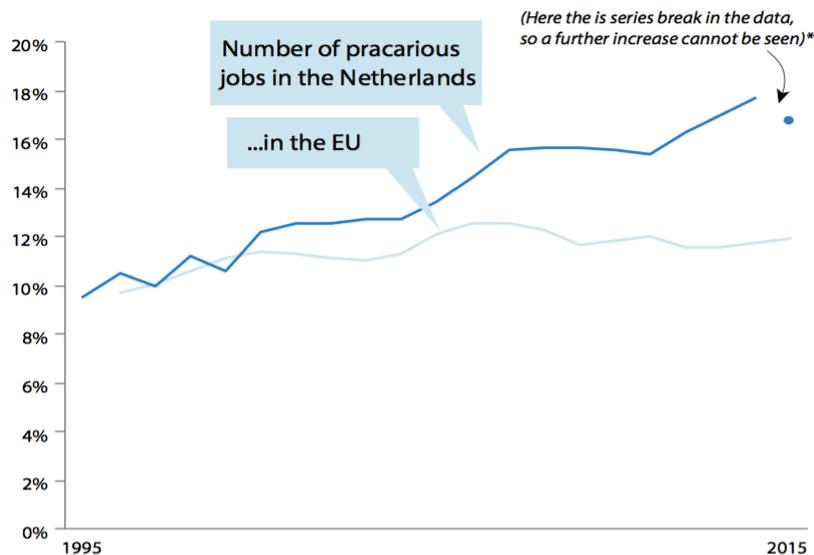


Figure 1, percentage of precarious jobs in the Netherlands compared to the European average, Source: (CPB, 2016, p. 5), translated by author.

1.2. RESEARCH PROBLEM

With a temporary labor contract there is not often a secure income, which makes it difficult to either apply for a mortgage or qualify in the requirements for renting a dwelling, precarious employment brings a lot of uncertainty (Premji, 2017). The labor market and the housing market should thus be highly related to each other. However, what type of ownership and type of property Dutch precarious laborers occupy is commonly unknown in academic literature.

This research aims to allocate the position of the precariat on the housing market. This research offers a great opportunity to connect different demographic features of the Dutch residents to their housing characteristics. The results will be of great relevance for further policy development and property investment opportunities, as precarious employment occurs more often. In addition, the results will contribute for the greater concern of the precariat in policy agendas of all government authorities. What makes this research of high relevance is that it looks at specific demographic characteristics of the precariat which helps authorities to gain a deeper understanding of this group.

This research aims to answer the following main question:

How does precarious labor contracts affect housing opportunities in the Netherlands?

The following sub questions are proposed:

- *What different types of precarious labor contracts are available on the Dutch labor market?*
- *To what extent forms a precarious labor contract a barrier when deciding between buying or renting a property?*
- *What types of property and ownership do precarious laborers occupy?*

1.3. THESIS STRUCTURE

In chapter 2, the theoretical framework: precariousness, flexible labor and the housing market are explained as the three main concepts for this research together with the conceptual model. In chapter 3, the methodology used for this research is addressed where the data collection instrument, the types of statistical measurement and the ethical considerations are further explained. Chapter 4 consists of the results, where the different types of labor contracts in the Netherlands are discussed and what their limitations are in the different housing sectors. This chapter concludes with a statistical analysis of the survey outcomes where the housing situation of the precariat is researched. In chapter 5, the conclusion presents the answer to the main research question, together with a reflection of the research and recommendation for further research.

2. THEORETICAL FRAMEWORK

2.1. PRECARIOUSNESS

Since the 1970's, large scale production in the national economy has declined. This was a turning point in the globalization of the economy, where according to Standing (1999), more firms started to gain a reputation in the world and produced outside their national border. For firms, this meant that their production had an increased uncertainty and therefore started using flexible labor (Standing, 1999). Not only employers then faced with uncertainty, but so did the employees and the term precarity was first associated with labor. Precarious forms of labor contracts were established because firms could not secure a steady workload for laborers and made it easier to dismiss employees (de Graaf-Zijl & Ernest, 2007). Nowadays, there are many forms of precarious labor contracts on the market. Where each contract generates a certain degree of uncertainty. Therefore, not all enjoy the same benefits compared to someone with a permanent contract (Premji, 2017). According to the Dutch Central Planning Office (2016), 4 out of 10 Dutch employees does not have a permanent labor contract, which translates to around 3 million people, and mostly concerns young graduates. Today, precarious employment has grown to about 18% and occurs most often among the lower educated (CPB, 2016).

Jacquemond & Breau (2014) define precariousness with the analyses of two geography papers. Where, according to Waite (2009) precarity is defined as jobs that have high insecurity, low wages and limited or non-existing employment benefits. Rodgers (1989) defines four aspects of precarious labor: the degree of certainty for further employment, the level of control over work via labor unions, the regulatory framework that protects laborers in their working environment and the received income. Jacquemond & Breau (2014) conclude that precarity is thus associated with insecurity and uncertainty. Standing (2011) further defines Rodgers four aspects into seven different forms of security that a precarious employee lacks of:

1. *Labor market security* - Ample opportunities of securing an income with an equilibrium in demand and supply
2. *Employment security* - Enough security of employment in the future, security of uneasy dismissal
3. *Job security* - Security of gaining an ideal position in the firm where personal skills are of great use and keep knowledge on a certain level
4. *Work security* - Security for a safe and healthy work environment
5. *Skill reproduction security* - Security of further development of skills
6. *Income security* - security of a stable income that is protected through taxes, pensions and so on
7. *Representation security* - Security of openly joining a labor union with the right to go on a strike

In sum, literature defines precarious employment as labor with a form of "uncertainty, low income, and limited social benefits and statutory entitlements" (Arnold & Bongiovi, 2013, p. 300).

2.2. FLEXIBLE LABOR

Second theme that needs further introduction is flexible labor, as this concept is widely used in Dutch literature, and can result in misinterpretations when researching precarious employment. Arnold & Bongiovi (2013) state that the main difference between these two concepts is that on the Dutch labor market not every form of flexible labor has to be precarious, which will be further discussed in chapter 4. As someone with a fixed-term contract with guaranteed number of hours is considered flexible, but is not necessarily a precariat, as in the long-term, this laborer lacks in employment security. Those laborers can have an employment contract of a period of one year and can be renewed up to a total of 24 months (FNV, 2018). In addition, the FNV (2018) states that these laborers are usually employed with a guaranteed number of hours, therefore income security is almost non-existent. Flexible labor is considered with the aspects of labor security and income security of Standings seven forms of insecurity,

and consist of all labor contracts, except those who are in a permanent employment situation (CBS, 2018).

2.3. OWNERSHIPS IN THE DUTCH HOUSING MARKET

In the Netherlands, one can choose many different properties in different housing sectors. There are three sectors within the housing market that each have their own characteristics and are occupied by different demographics of people (van der Vlist et al., 2002).

2.3.1. THE SOCIAL RENTED SECTOR

The social rented sector is associated with social or public housing. This sector was established after the Second World War when the demand for housing was high. The government had a high involvement in funding as by 1960, 95% of the buildings were subsidized and the government covered 25% of the building costs (Elsinga, et al., 2007). Non-profit housing corporations, that own large monotonous building blocks, mostly made the dwellings available, but private property owners could also lease these dwellings. To be able to obtain a dwelling in this sector, a tenant has to meet eligibility criteria (van der Vlist et al., 2002). The tenancy criteria for these dwellings differ per unit, and a tenant needs to register with a local organization that is responsible for the dispersal of these dwellings to receive waiting time. A local municipality can permit the potential tenant to work or study in the area of residency. As a housing corporation is required to ascertain 80% of their yearly available housing stock to lower incomes, there is a national income limit of € 36.798 per year (Rijksoverheid, 2018). In return, the tenant savors rental allowances and a monthly rent that is below the rental liberalization limit of €710,68 (Rijksoverheid, 2018). In this sector, rent is determined according to a point system, which is associated with different amenities, square footage and the quality of the dwelling (Rijksoverheid, 2018). This sector opens up certain privileges for lower income groups they would not receive in the private rented sector. One of these privileges is the housing corporation can only annually raise the rent with a maximum percentage (Rijksoverheid, 2018).

2.3.2. THE PRIVATE RENTED SECTOR

When a tenant's incomes exceeds the national set limit of € 36.798 per year, with a few exceptions, they are likely to rent in the private rented sector. This sector is characterized by a monthly rent that exceeds the aforementioned liberalization limit of €710,68. In the private rented sector, there is no point system like used in the social rented sector. The rent in this sector is determined according to the supply and demand and the location of dwellings. Therefore, the private rented sector has a higher return on investment for the landlord (Haffner, 2011). In comparison to the social rented sector, the landlord is able to increase the yearly rent without a maximum and the tenant is not able to apply for rental allowances (Rijksoverheid, 2018). In return, the tenant receives a more unique property that is more distinct and is does not need waiting time and other eligibility criteria.

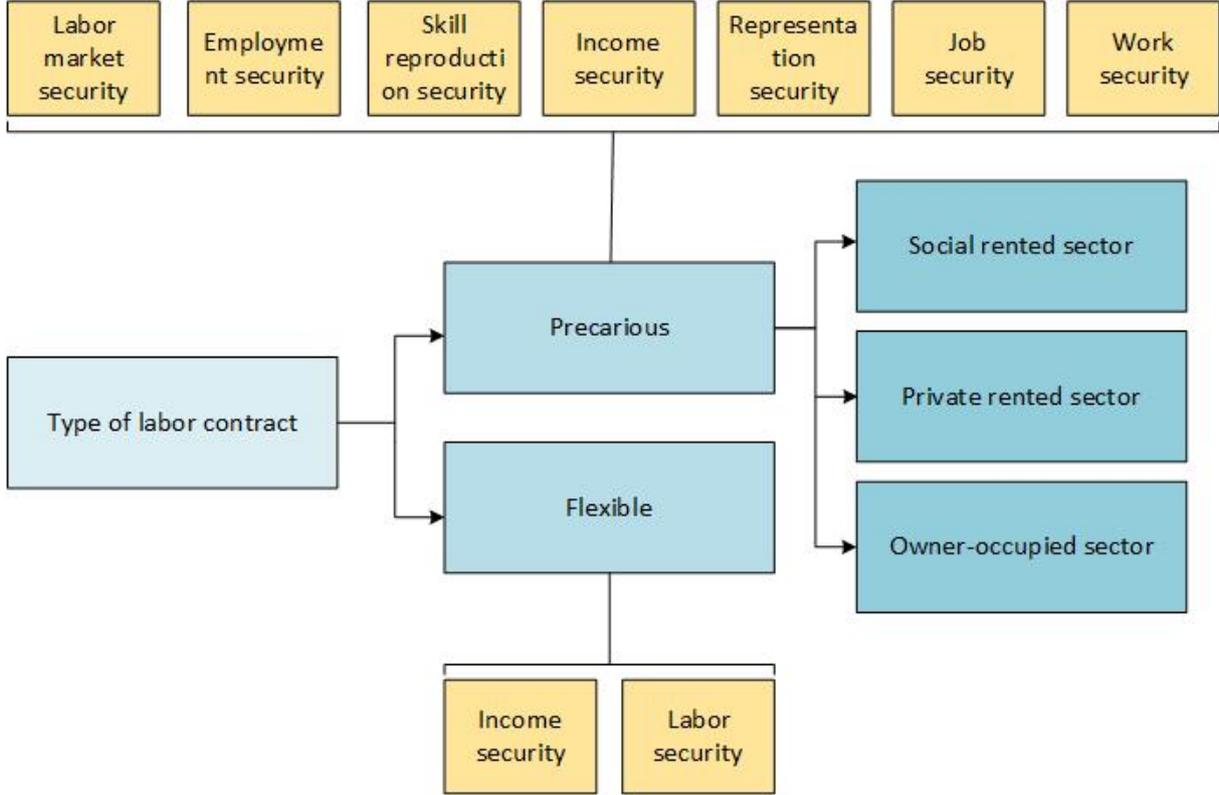
2.3.3. THE OWNER-OCCUPIED SECTOR

The owner-occupied sector consists of two types of properties, newly constructed and constructed properties. For newly constructed properties, the developer or local municipality can set eligibility requirements for new buyers like those in the social rented sector. The benefits in this sector is that the owner-occupier is free in the choice of properties (ABN-AMRO, 2018). On top of the agreed exchange price there is a tax added which is relatively high in this sector. This tax is the closing or purchasing cost of six percent of the agreed price (van der Vlist et al., 2002).

2.4. CONCEPTUAL MODEL

Figure 1 displays the conceptual model for this research. The type of labor contract is flexible or precarious. Where precariousness is associated with more types of security compared to flexible labor, this reseach will focus on precarious employment and the further connection to the housing market, which is separated in the social rented, private rented or owner-occupied sector.

Figure 1, Conceptual model



3. METHODOLOGY

This research starts with a literature study of different Dutch labor contracts and connects these with the Dutch housing market. Besides academic literature, grey literature, like documents from organizations as the FNV, CBS and CPB are discussed to research the different labor contracts and connects these with Standings' seven forms of security. Academic literature and grey literature like policy information about housing is used to answer the second research question and connects these with the survey results.

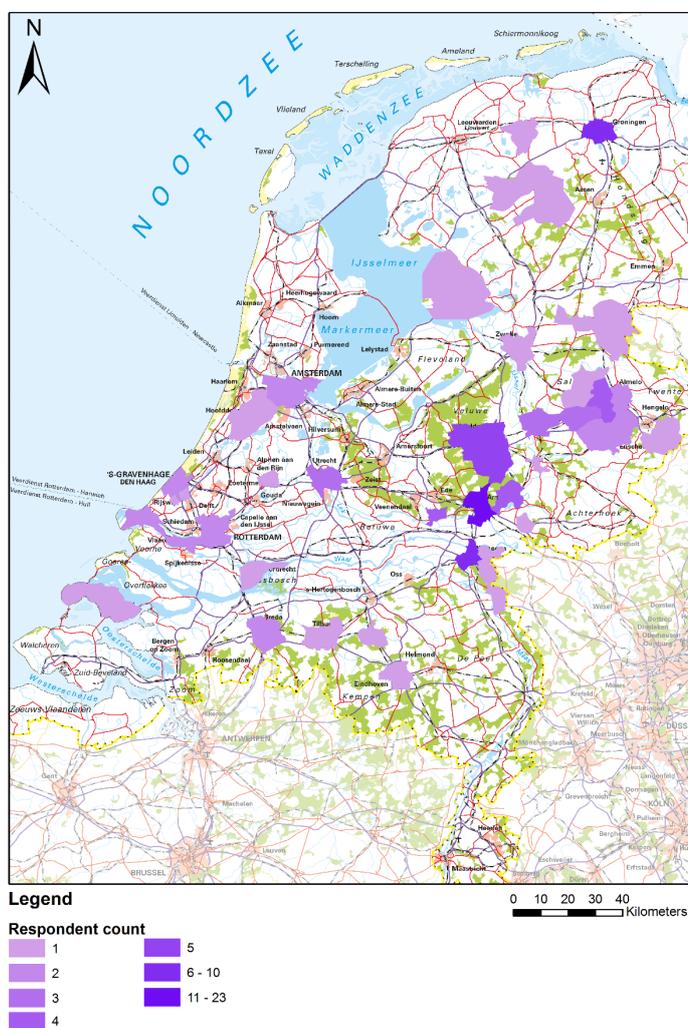
After the literature review, statistical analysis follows using empirically collected survey data. In order to make statements about the relationship between labor contracts on the independent side and the type of ownership or type of house on the dependent side, survey data would best fit this type of research and analysis (Clifford et al., 2016). The survey is combined with a fellow student that researched the same population on a different topic. The questionnaire for this research is attached in appendix I and is digitalized via Maptionnaire. The survey concerns questions about the age, gender, postcode, labor situation, housing situation and partnership situation as those are demographics in the different housing sectors (Arnold & Bongiovi, 2013; Green & Lee, 2016). Since the precarious employee is difficult to reach, different companies and organizations¹ were contacted to make this a collaborative study. Nothing came forth from this process, so the survey had to be distributed in the following different ways:

- Own network on Facebook and LinkedIn;
- Face-to-face;
- In person, during the Labor Day march of the FNV;
- An afternoon on May 5th, 2018 in the researchers' own neighborhood.

When filling in the survey, respondents often mentioned relevant and interesting quotes, which are, with verbal approval of the respondent, presented throughout the results to get a better understanding of certain phenomena. With the results from the questionnaire, two types of statistical test are used (confidence interval: 95%). Not all variables did meet these requirements so categories are merged (Burt et al., 2009). The Chi square test, researched the relationship between the labor contract and the type of dwelling and type of ownership. When the Chi square test shows any significance between the two variables, the multinomial regression investigates the exact relationship between the different categories (Burt et al., 2009).

Figure 2 shows where the different respondents are housed. There is a certain kind of clustering of the

Figure 2, number of precarious respondents per municipality (PDOK, 2018)



¹ Maandag@, Nijenstee, Lefier, CBS and different departments of the labor union FNV

respondents, this could harm the representativity and reliability of the sample and therefore spatial analysis is not possible.

3.1. ETHICAL CONSIDERATIONS

Ethical considerations during this research concern the privacy of respondent, which during all times, anonymity is assured as no names are used and only the four-digit postcodes were questioned. Because this population is difficult to reach, scrupulousness is a critical aspect. Hence, the type of sample that best represents this research is a convenience sample, as respondents were not obliged to respond and were not completely chosen randomly (Burt et al., 2009). Distributing the questionnaire in the researchers' own network could harm the reliability of the results as it consists of connections which are generally within the same social economic status. Other social economic status groups are also necessary in the analysis, so, during the FNV march on May 1st, 2018, people from all different backgrounds were approached. These additional respondents increases the reliability of this research as a larger group of lower economic status group became present. However, some types of contracts were still less present, so different categories were merged to make the sample representative. Since most of the precarious labor groups seems to be representative in younger age groups, the results are comparable with the Dutch average of CPB to increase its verifiability. Conducting the researchers' own network decreases the independency between the cases. However, since the researchers' network consists of different people, which have no connection to each other, independence is not an issue. Together with collecting data during the FNV march, independency between cases is further embedded.

4. RESULTS

There is a variety of different labor contracts in the Netherlands, which deal with a certain degree in level of security (Standing, 2011). Levels of accessibility are visible in the housing market, as different landlords offer different types of properties to a range of different characteristics of people. This chapter start with discussing the different types of Dutch labor contracts. Then the limitations of different types of labor contracts in the housing market are discussed with results from the sample used in this research. This chapter concludes with a statistical paragraph to get an understanding of the precariat on the housing market.

4.1. TYPES OF LABOR CONTRACT IN THE NETHERLANDS

In the Netherlands, there is a wide variety of labor contracts available on the job market. CBS (2018) makes a distinction between an employee and being self-employed. Being an employee, there is a further distinction between having a fixed-term contract and an indefinite/permanent contract. A fixed-term contract can either be a form of contract where the employee has a contractual number of hours per week, for example a full-time or part-time employment. A fixed-term contract can have no contractual hours per week, which is defined as a zero-hour contract. When there are no contractual hours per week, this brings a certain degree of precarity. In this research, the following types of labor contracts used in the Dutch labor market are distinguished:

- Indefinite/permanent contract with contractual hours
- Indefinite/permanent contract without contractual hours
- Fixed-term contract with contractual hours
- Fixed-term contract without contractual hours
- Temporary agency work contract
- On-call labor contract
- Self-employed without employees

Standing (2011) presented seven forms of insecurity, which are associated with precarious labor. These forms correspond with the different types of labor contracts, which are utilized in the Dutch labor market (see table 1). These contracts all have a rating from very low to high form of security. Following the questionnaire, four groups are recognized, were different types of Dutch labor contracts are merged. The first group are laborers with a permanent labor contract. As relatively obvious, a permanent labor contract scores high in any form of labor security.

The second group in table 1 are employees with a temporary or permanent labor contract without guaranteed hours. These laborers score relatively low on most aspects of security, except work security and representation security, as an employer is obligated to supply labor when it is available (Rijksoverheid, 2018; FNV, 2018). In addition, an employer is obligated, to pay an average income of the last 3 months the laborer has been working (Civil Code book 7, article 610b). However, a laborer is dependent on the availability of enough labor, during times of economic stability this does not form an obstruction, but during times of economic instability a laborer is easily dismissed (de Graaf-Zijl & Ernest, 2007).

With a fixed-term contract, security restraints are different. In the short run, the employee is relatively stable in all forms of security (Gash & McGinnity, 2007). However, in the long term the laborer is not sure in future security of labor as their employer is not compulsory to renew the labor contract for a new period (FNV, 2018).

The last group in table 1 contains laborers with temporary agency work, on-call labor or self employment. They score the lowest in accordance to labor security. A zero-hour contract is a form of on-call labor (FNV, 2018). However, there were enough respondents in the sample that had a zero-hour contract and are therefore analyzed as a separate group. The last group is therefore a merged group of labor

contracts that all score low on security, as this group is highly dependent on what the labor market is offering. During times of economic instability, it will be hard to get a job and they might be forced to change jobs regularly (Leonardi, 2017). Especially for those who are self-employed, who are in a continuous spiral to attract new employment, labor insecurity is a big concern (van Vuuren & Klein Hesselink, 2011).

Table 1, Measurement of security of different labor contracts

	Permanent contract	Zero-hour contract	Fixed-term contract	Temporary agency work, On-call labor, self-employed
Labor market security	++	-	0	--
Employment security	++	0	0	-
Job security	++	-	0	-
Work security	++	+	++	+
Skill security	++	0	+	-
Income security	++	0*	+	--
Representation security	++	+	+	+

Note:

++ high security, + good security, 0 neutral, - low security, very low security

* Is protected in the Civil Code book 7, article 610b

4.2. LIMITATIONS OF LABOR CONTRACTS ON THE HOUSING MARKET

In the social and private rented sector, it is easier to obtain a dwelling because for the letter there is a lower risk involved compared to a bank providing a mortgage. In the private rented sector, a letter may require the tenant to have an income of the rent times a set amount, for example, an income of three times the rent (Haffner, 2011). When the renters' income is below €36.798 per year it will most likely rent in the social housing sector. When the income is above the set maximum or because it does not meet other requirements of the social rented sector, it will most likely rent in the private rented sector. In the social housing sector, the housing corporation looks at the received income from two years previously. When the income has raised substantially there is a case of skewed income-to-rent ratio, the housing corporation can either raise the rent by a certain percentage or request the tenant to reallocate (Rijksoverheid, 2018).

In the case of a zero-hour contract there can be large fluctuations in income so a potential tenant might not want to look for a social housing dwelling and prefer a private rented dwelling. With a fixed term contract, were there is a relative stable income, social housing offers great opportunities. On first site, it might seem like income is the most important requirement for social housing. According to the following respondent, waiting time and association with the place of residency is very important for those who are in the rush for a property. Due to frequent occupation changes because of precarious employment, they are not able to obtain a dwelling in the social housing sector:

“Neither my partner or I have any association with Arnhem, as we both study in another town, we needed a place as soon as possible and we also did not have enough waiting time for social housing. So, we were not able to meet the requirements for social housing. Combined, we have a low income and get funding from the government for our education, so we were able to apply for a small private rented apartment in the city” (part-time student)

When buying a property in the owner-occupied sector, a future owner can directly pay from its own resources or obtain a mortgage from the bank. In return, the bank will require monthly payments for the mortgage. The bank needs a guarantee that the loaner is in a stable labor situation and income to be

able to pay this monthly mortgage. When the person, applying for the mortgage, has a permanent/indefinite contract, it is easy to apply for the loan, since there is enough stability of income. When the mortgage taker is not in a stable labor situation and has for example a fixed-term contract, there is no guarantee of future employment. The bank can decline the mortgage loan or ask for an intention agreement (KNAB, 2018). This intention agreement is obtained from the employees' boss and shows that the employee has performed the job as required and if this remains in the future, it will receive a contract extension (SNS bank, 2018). Although with an intention agreement, a laborer can apply for a mortgage there is still no guarantee of a contract extension, as it cannot claim one with the intention agreement (Rechtbank Zeeland-West-Brabant, 2014). Besides the intention agreement, the bank will investigate your income of the last three years. Where the bank calculates an average and looks if the income from the final year is below that average, and they then use that as a starting point (Rooijakkers, 2018). In addition, depending on the type of labor contract and bank, it can require a certain amount of own liquid assets. This loan-to-value is, for example, those who are self-employed 100% of the sales value and only 85% for those with temporary agency work (Cernëus, 2018). The study by Mckee et al. (2017), found that those in precarious labor situation seems to find it difficult to apply for a mortgage since they either do not have enough personal resources and face uncertainty in their occupation. From the perspective of a precarious laborer, it might feel restrained with their current labor contract when wanting to obtain a unit in the owner-occupied sector.

The question if an employee feels that their current labor contract is a restraint when searching for a different property was presented in the survey (see table 2). Statistical analysis between the rating and type of labor contract was not possible, as it did not meet the statistical requirements. However, judging by the descriptives, 85,7% of the respondents with a permanent labor contract rated their labor contract not as restrain when searching for a new property. For those with any form of a precarious labor contract, their contract seems to form more of a restraint when searching for a new property compared to someone with a permanent labor contract. However, between the different labor contracts there is a division between the ratings. Age is the main explanation for this difference (Berrington et al., 2014). Younger people are not confronted to think about reallocating and therefore do not feel that their current contract feels as a hindrance. This could be of higher concern for older people because, as shown in chapter 4.3, older people tend to occupy the owner-occupied sector more often than a rented dwelling. Therefore, a reason for the latter group is that their average age is higher, they are more actively thinking about a next house and their contract forms an obstacle. In addition, in line with the life-course approach, as you get older, the urge to settle increases (Bernard et al., 2014). For young people this is not yet the case, because young graduates are still in a high mobility pattern and therefore do not want the solidity of a mortgage.

Table 2, employees about their opinion of their labor contract when in search for a new property

	Contract does not form a restrain	Neutral opinion	Contract forms a restrain	Total	Mean age
Permanent labor contract	85,7%	0,0%	14,3%	100,0%	33,81
Zero-hour contract permanent or fixed-term	50,0%	4,2%	45,8%	100,0%	25,27
Fixed-term contract with guaranteed hours	37,7%	9,4%	52,8%	100,0%	26,83
Temporary agency work contract, On-call labor contract, Self-employed without employees	25,0%	0,0%	75,0%	100,0%	33,56
Total	49,5%	5,0%	45,5%	100,0%	

4.3. THE HOUSING SITUATION OF THE PRECARIAT

As mentioned, surveys were conducted to get an insight in the labor and household situation. In total, a sample of 134 respondents was gathered (see table 3). 59 percent were men and 41 percent were females. The respondents are relatively young, as almost 70 percent of the respondents are below 30 years old, which is recognized to be the largest precarious labor group (CPB, 2016; Lindelauff, 2018). The fixed-term contract with guaranteed hours occurred most often. Almost half of the respondents live in either a terraced, detached or semi-detached house. In addition, the largest group of the respondents are owner-occupiers. The partner cohabitation of the respondents is evenly distributed in the sample (51.5% to 48.5%).

Table 3, Descriptive statistics of survey results

	Valid percentage	Count
N	100%	134
Gender		
<i>Men</i>	59,0%	79
<i>Females</i>	41,0%	54
Age		
<i>Mean age</i>		29,34 years
<i>Mode</i>		22
<i>Standard deviation</i>		9,614 years
Education		
<i>High school or lower</i>	6%	8
<i>Secondary vocational education (MBO)</i>	19,5%	26
<i>Higher professional education (HBO)</i>	47,4%	63
<i>University (WO)</i>	27,1%	36
Labor contract		
<i>Permanent contract with guaranteed hours</i>	22,0%	29
<i>Zero-hour contract permanent or fixed-term</i>	19,7%	26
<i>Fixed-term contract with guaranteed hours</i>	43,9%	58
<i>Temporary agency work contract, On-call labor contract, Self-employed without employees</i>	14,4%	19
Type of housing		
<i>Apartment or flat</i>	32,8%	42
<i>House (terraced house, detached house, semidetached)</i>	46,9%	60
<i>Student room or studio</i>	20,3%	26
Type of ownership		
<i>Social rented sector</i>	35,5%	44
<i>Private rented sector</i>	21,0%	26
<i>Owner occupied sector</i>	43,5%	54
Partner cohabitation		
<i>Yes</i>	51,5%	67
<i>No</i>	48,5%	63

Note: not all counts add to 134 as some variables were missing, the cases were still of value in the analysis

No relationship is existent between the types of labor contracts and types of dwellings. The social housing sector offers different types of properties which are also available in the private rented and owner-occupied sector and thus showing no significant relationship (Schmitter Heeler, 1994). In contrast, there is a significant relationship between the type of labor contract and ownership. To study the relationship between the precarious labor contract and the type of home ownership two models were ran (see table 4). In the first model, the direct causal relation is researched. In the second model, variables concerning gender, age, education and partner cohabitation are added that possibly affect the relationship between labor contracts and type of ownership (Arnold & Bongiovi, 2013; Green & Lee, 2016).

Table 4. Multinomial logistic regression coefficients and significance

	Model 1		Model 2	
	Exp(B)	Sig.	Exp(B)	Sig.
Social rented sector				
Zero-hour contract permanent or fixed-term	2,714*	0,170	2,042*	0,388
Fixed-term contract with guaranteed hours	3,311*	0,031	2,276*	0,230
Temporary agency work contract, On-call labor contract, Self-employed without employees*	4,750*	0,027	9,472*	0,027
Gender (1=female, 0=Male)			0,712	0,506
Age			0,925	0,038
Higher professional education (HBO)			0,391**	0,130
University (WO)			0,200**	0,049
Living with a partner (1=Yes, 0=No)			0,701	0,582
Private rented sector				
Zero-hour contract permanent or fixed-term	6,786*	0,010	4,182*	0,123
Fixed-term contract with guaranteed hours	1,727*	0,427	1,178*	0,849
Temporary agency work contract, On-call labor contract, Self-employed without employees	3,167*	0,174	15,715*	0,026
Gender (1=female, 0=Male)			0,412	0,175
Age			0,863	0,009
Higher professional education (HBO)			2,157**	0,393
University (WO)			3,057**	0,276
Living with a partner (1=Yes, 0=No)			1,725	0,476
Notes:				
The reference categories for both social and private rented sector is the owner-occupied sector				
* Reference category is permanent contract with guaranteed hours				
** Reference category is secondary vocational education (MBO) or lower				

According to the first model, a significance is not always visible between labor contracts and the different housing sectors. Someone with a fixed-term contract with guaranteed hours, compared to having a permanent contract is 3.311 times more likely to occupy the social housing sector than becoming an owner-occupier. As shown by Amuedo-Dorantes & Serrano-Padial study (2007), those with a fixed-term contract generally earn a lower income compared to someone with a permanent contract. Therefore, the social housing sector offers the best possibilities for those someone with a fixed-term contract. In addition, those with temporary agency labor, on-call labor or being self-employed are highly represented in the social housing sector. This relates to the 7 forms of insecurity and scoring the lowest in table 1. Especially their income security is low, to whom the social housing sector is offering dwellings (van der Vlist et al., 2002).

Shown in model one, in the private rented sector laborers with a zero-hour contract will, compared to people with a permanent labor contract, be 6.786 times more likely to occupy a private rented dwelling than buying a property. Since, with a zero-hour contract there is no security of a stable income and is associated with lower paid jobs it thus lowers possibilities to obtain a mortgage (O'Sullivan, et al., 2015). In comparison, in model one, obtaining a zero-hour contract compared to a permanent contract did not result in a significant relationship between living in a social housing dwelling instead of being an owner-occupier. Reason being, when obtaining a dwelling in the social housing sector, the future tenant needs enough waiting time (van Ommeren & van der Vlist, 2016). As zero-hour labor is concerned with a temporary form of employment and there is an increased job mobility, the laborer might not be able to postpone searching for a dwelling in a certain area until enough waiting time is received and will therefore more likely occupy the private rented sector (Hardgrove et al., 2015).

Further, model 1 shows no significant relationship between a fixed-term contract, temporary agency labor, on-call labor or being self-employed compared to a permanent contract and living in a private rented dwelling instead of being an owner-occupier. Reasoning could be due to other underlying covariates, like the labor contract of the partner in being the main breadwinner and determining whether to buy or rent a property. In addition, this research is a reflection of the current period and does not show when somebody has moved in to their current home. According to the following respondent, previous household decisions still live on as they were permanently employed when buying the house and are now in precarious employment, but this does not affect their current housing situation:

“I have bought my house around 15 years ago when I was working full time with a permanent contract, recently I changed employment and I am now working on a fixed-term contract, this contract has not affected the buying process of my house 15 years ago.”
(Fixed-term laborer)

According to Eichholtz & Lindenthal (2014), the older somebody gets the less likely it will be to live in either the social or private rented sector, which is approved by model two. According to Elsinga et al. (2007) younger people are highly representative in the social housing sector. The second model shows that younger people are concentrated in both social and the private rented sectors. In addition, Elsinga et al. (2007) states that single person households mainly occupy both rented sectors. Model two however, did not show any significance between partner cohabitation and the type of ownership. In addition, the sample was not large enough to run any statistical test on the different labor contracts of respondents' partners to see if this has any effect on the type of ownership.

People with a university degree seem to be less representative in the social housing sector according to model two. This result is supported by Yang & Qiu (2016), whom state that an increase in human capital increases income distribution. Therefore, those people will exceed the national set income limit to be eligible for the social housing sector. In addition, Venhorst et al., (2010) found that university graduates are more spatially mobile than college graduates. A university graduate might therefore not apply for social housing because they are unsure about the future place of residency and will therefore not be able to receive enough waiting time.

5. CONCLUSION AND REFLECTION

The aim of this research was to investigate the correlation between precarious labor contracts and the housing market. Very little to no research has previously covered the housing distribution of the precariat in the Netherlands, this research has shown that precarious labor indeed limits residential opportunities. There are many different labor contract and employer can choose from in the Netherlands. A permanent labor contract enjoys the highest security. A fixed-term contract scores lower in security but there is still security of labor and work. Security of income with a zero-hour contract is embedded in the Dutch Civil Code and therefore has little security. Those who are self-employed, on-call or temporary agency labor have the lowest security. According to the researched literature, it is likely that precarious labor forms a barrier when wanting to reallocate. However, no significance was found in the results. In addition, no significance was found between different types of properties and the type of labor contract. In contrast, there is a significant correlation between ownership and types of labor contracts. This study shows that laborers with a fixed-term contract, temporary agency labor, on-call labor and self-employment are indeed highly represented in the social housing sector. On the other hand, laborers with a zero-hour contract seem to be represented in the private housing sector. When looking at other characteristics of tenants like, age, gender, education and partner cohabitation it is shown that when age increases the less likely somebody will be living in a rented dwelling. In addition, University graduates do seem to be less likely to live in the social housing sector. Other variables did not reveal any significant results. In general, being in a precarious labor position makes it difficult to access the owner-occupied sector, as high levels of insecurity restrain the precariat to obtain a mortgage. Since precarious labor will be more prominently used in the labor market, banks and local municipalities could revise their policies to cater this group.

The extent of this sample limits making more detailed statements about each different labor contract. A recommendation for further research is therefore to collect a larger sample of Dutch laborers. An additional variable, income can be added in future research. This will enable to research if there is a difference in income between the different contracts and investigate its effects on the housing market. Further research can also determine whether the housing demand has changed over the years where precarious employment became more prevalent on the labor market. Another recommendation for further research is researching mobility patterns of the different precarious labor contracts. This will help to research underlying covariates, which will explain if people with precarious labor contracts move for the job or stay in the same house and face a longer daily commute, so they can pursue living in their social housing dwelling since they had enough waiting time.

It is debatable whether there are enough variables to make general statements about the precarious labor population and their housing differences. Because housing opportunities of laborers is not only affected by their labor contract, household decision making, life-course transition, type of labor are all factors that determine someone's decision to live in a certain property and location. Further research should therefore not only consist of one research method but using multiple methods (Punch, 2013). Interviews and ethnography could be used in a triangulated or explanatory research design.

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7. APPENDIX

I Survey Questionnaire

APPENDIX 1

Survey questions (link to Maptionnaire: <https://app.maptionnaire.com/nl/4164>):

Q1: what is your gender?

- Male
- Female
- Other

Q2: What is your age

_____ years

Q3: What is your highest received education?

- No education
- High school or lower
- Secondary vocational education (MBO)
- Higher professional education (HBO)
- University (WO)
- Other: _____
- Don't know

Q4: Where do you live (on 4-digit postcode level without letter, so: 1234AA is: 1234)?

Q5: What is your current type of labor contract?

- Permanent contract with guaranteed hours
- Permanent contract without guaranteed hours (zero-hour contract)
- Fixed-term contract with guaranteed hours
- Fixed-term contract without guaranteed hours (zero-hour contract)
- Temporary agency work contract,
- On-call labor contract,
- Self-employed without employees
- Other: _____
- I don't have work at the moment
- Don't know

Q6: In what type of property do you currently live?

- Apartment or flat
- Terraced house
- Detached house
- Semidetached house
- Student room
- Studio
- Other: _____

Q7: What kind of ownership is your current property?

- Social housing sector
- Private rented sector
- Owner-occupied sector
- Other: _____
- Don't know

Q8: Does your current labor contract feel as a restrain if you were to reallocate to a different property?

-- - 0 + ++

Not at all

Yes, completely

Q9: Do you currently have a partner where you live with?

- Yes (proceed to question 10)
- No (you have now reached the end of the survey, thank you for participating)

Q10: What is your current type of labor contract of your partner?

- Permanent contract with guaranteed hours
- Permanent contract without guaranteed hours (zero-hour contract)
- Fixed-term contract with guaranteed hours
- Fixed-term contract without guaranteed hours (zero-hour contract)
- Temporary agency work contract,
- On-call labor contract,
- Self-employed without employees
- Other: _____
- My partner does not have work at the moment
- Don't know