The unexplained trust in local politics

The effect of the Great Recession in 2008 on the education gap

in local political trust in Rotterdam

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Abstract

Political trust at the local level has received little attention in research. It is known that political trust is important since it indicates the health of a democratic system and citizens' satisfaction of the government. However, an education gap has been observed in political trust, among other political attitudes, which causes the lower educated to be less trusting in the political system. An additional effect on this education gap could be the Great Recession of 2008. This economic crisis would have a negative effect on political trust: the declining economic performance and rising unemployment would make citizens feel their government is not acting in their favour. Especially the lower educated, who are more vulnerable to economic change, would be affected by this. To research the relationship with education and the moderating effect of the economic crisis, political trust on the local level will be investigated in this study. The focus will be on the Dutch city of Rotterdam. The Rotterdam Neighbourhood Profile dataset with waves from 2008-2019 was used in the multiple regression analysis. The results only show a small education gap in local political trust, with the higher educated being the most trusting and, surprisingly, the middle educated as least trusting in the local government. The recession had a minimal effect on the levels of trust, and no moderation effect was found. Possible explanations are discussed as well as suggestions for future research, as the concept of local political trust still needs development.

1. Introduction

A crucial element in the performance of a democracy is political trust: the level of trust in a system reflects the citizens' evaluation of its performance. A political system that is performing well and is responsive to their public will increase the level of trust of their citizens (Hawhverdian & Mayne, 2012). Another reason that political trust is of key importance, is that it has been linked with other political attitudes and behaviours. Political participation such as voter turnout, protests and political consumerism are positively correlated with political trust. There are also positive relationships with compliance with the rules and civic duties. Furthermore, a decline in political trust negatively affects the legitimacy of a government (Hawhverdian & Mayne, 2012). A high level of political trust is thus very important for a well-functioning political system. In this thesis, the focus will be on the Netherlands, which is seen as a 'high trust' country (Bovens & Wille, 2011), and the city of Rotterdam in particular. Local politicians act on a smaller scale, which increases the visibility of these actors and increases their responsiveness, which in turn cause higher levels of trust in the local government (Denters, 2002).

However, a major issue has emerged in the Netherlands that affects the level of political trust. In the last decades, an increasing education gap has developed in society. Bovens and Wille (2010) have described this gap as the biggest cleavage in current politics. The lower educated are less represented in politics, are less engaged in political participation and have significant lower levels of trust in politics (Aaldering, 2017; Bovens & Wille, 2010). This has resulted in a 'diploma democracy' in the Netherlands: (almost) only citizens with the highest levels of education currently run the political arena. The percentage of lower educated in politics has not been this low since 1881 (Bovens & Wille, 2014). This is also due to the lower voter turnout among lower educated citizens. This has resulted in an underrepresentation of the interests of this group, which are different than the higher educated citizens (Aaldering, 2017).

This education gap in politics has caused a significant part of society to be underrepresented and to withdraw from voting, but moreover: to be distrusting of politics. I have investigated this issue in combination with another important predictor of political trust: the economic performance of a country and, more specifically, the impact of the Great Recession of 2008. This economic crisis has had a large impact on Europe. There was a decline of economic growth, a rise in unemployment and an increase in deficits in the national budgets. This has not only had significant impacts on society itself, but also on the levels of political trust citizens have (e.g. Van Erkel & Van der Meer, 2016). According to Bovens and Wille (2010), the high levels of political trust that are common in the Netherlands dropped significantly after 2008. In all of Europe, there was a decline in political trust

after 2008, mostly since 2009 (Van der Meer, 2018). Thus, the economic situation is an important factor to take into account when researching the level of political trust.

Local political trust has not received much attention in the literature. This calls for more attention on what this concept encompasses. The education gap is not researched on the local level, and it is also not known how an economic crisis would affect local political trust. In this thesis, I combined these two factors, in order to research the effect of the economic crisis on the education gap in local political trust. I argue why this crisis has likely negatively affected the difference in local political trust between education levels. Lower educated have weaker economic positions, which means they were more vulnerable to the consequences of the Great Recession (Van der Waal & De Koster, 2015a). This could affect their view on their local government, since this group might feel this political institution is not responsive to their needs. This will, in turn, lead to lower levels of local political trust (Hansen, 2013).

I focus on the case of Rotterdam, a city that has large socioeconomic inequalities (Custers, Engbersen & Snel, 2019). This might make the city more vulnerable for a crisis such as the Great Recession. This means that there could potentially be a large effect of the economic crisis on local political trust. Rotterdam is also a unique case considering local politics in the Netherlands. In 2002, a newly formed right-wing populist party, Leefbaar Rotterdam, got close to 40% of all votes in the local election (Scholten, Crul & Van de Laar, 2019). The rise of this party is notable because they mostly attract lower educated citizens. Since this group is less represented in politics overall, this increased representation might lead to a higher level of local political trust, and thus a smaller education gap in politics than elsewhere in the Netherlands. Rotterdam is also a city of great ethnic diversity, which is reflected in the political sphere: the Islamic parties NIDA and DENK have gotten multiple seats in Rotterdam since 2014 and 2018 respectively (Scholten, Crul & Van de Laar, 2019). It could thus be possible that Rotterdam shows different patterns in the education gap in political trust, due to the higher representation of different groups in the city.

To investigate the extent of the education gap in local political trust in Rotterdam and the effect that the Great Recession may have had on this gap, I have formulated the following research question: *To what extent did the economic crisis in 2008 affect local political trust in Rotterdam, and to what extent did this effect differ for education levels?*. In the following sections of this thesis, I elaborate on the theoretical framework behind the relationships of (local) political trust, education, and the economic performance of a country, which I apply to the case of Rotterdam.

The concepts in this thesis are examined using a descriptive analysis combined with a multiple regression analysis. The Rotterdam Neighbourhood Profile (*Wijkprofiel Rotterdam*) survey,

which currently has eight different waves, from 2008 until 2019, was used. The first wave of the survey was in the same year as the Great Recession. Even though I argue that the effect of this economic crisis was felt in the years after 2008, this limitation will be discussed in the discussion section of this thesis.

2. Theoretical framework

This section provides an overview of the existing literature of how local political trust could be affected by people's level of education and the economic performance of a country. First, I elaborate on what the concept political trust includes, why this is a vital aspect of a political system and then I focus on the local dimension. Thereafter, the different effects of education on political trust will be discussed. Third, the effect of economic performance and an economic crisis on political trust will be explained, and how this differs for different educational levels. Lastly, I will focus on the context of Rotterdam.

(Local) political trust

The importance of political trust is well-established in the political field. Low trust in political actors and institutions will undermine the democratic legitimacy of a political system. A political system that is not functioning properly, will cause cynicism among its citizens (Easton, 1975; Hawhverdian & Mayne, 2012). According to this, a country that is performing poorly would have low political trust. For example, a country with high levels of corruption, which means that the political actors are not responsive to their citizens, has low levels of political trust (Hawhverdian & Mayne, 2012).

Political trust is often defined within two approaches. First, as an evaluation of the performance of the government: if the government is not performing well, political trust will decline (Van der Meer, 2018). Van Elsas (2015) describes political trust as "cognitive, knowledge based evaluation of political objects" (p. 1160). This follows the rational choice theory, where rational evaluations of the political domain determine the level of trust citizens have (Van Elsas, 2015). Citizens place their trust in political institutions when they act in their favour (Hawhverdian & Mayne, 2012). The second approach places the origin of political trust outside of the political sphere. This socio-cultural approach suggests that the perception of society and the belief in the goodness of others will shape citizens' trust in political actors. Political trust can be influences by socialisation during childhood or other social influences in a lifetime (Van Elsas, 2015). The idea of diffuse political support by Easton (1975) also follows the idea of socialisation: during a life course, childhood as well as adult life, an individual will learn to trust others, which will later be projected onto the political system.

With this theoretical background of political trust in mind, it is important to note that this focusses on political trust in national governments. In this thesis, I will focus on the case of Rotterdam, and thus a local government. Even though local political trust is also derived from

experiences and satisfaction with local political actors and their policies and services (Denters, 2002), political trust on the national and local levels have some differences. First, the levels of trust in local governments are usually higher than in national governments. Since local political institutions act on a smaller scale, the competence, integrity and responsiveness of the political actors are more visible, which would account for the higher feelings of confidence in these institutions (Denters, 2002). This effect of size is also reflected by the finding that smaller municipalities often have higher levels of trust than large municipalities (Denters, 2002; Hansen, 2013). This would be due to the lower levels of responsiveness that the citizens perceive in larger municipalities (Hansen, 2013). The perception of efficacy of local governments, their attachment to their citizens and the quality of services are important determinants for the satisfaction with these governments. A positive relation was also found with contentment with police services and political satisfaction (DeHoog, Lowery & Lyons, 1990).

Difference in educational levels

It has been widely observed that there are significant differences in the amount of political trust in different education levels: the lower educated have lower political trust compared with the higher educated (e.g. Bovens & Wille, 2010; 2011; Hawhverdian, Van der Brug & De Vries, 2012). Bovens and Wille (2010) mention that the biggest gap in politics is the education gap. This gap is especially important since the higher educated are one third of the Dutch population, but are dominant in the political sphere. The lower educated have almost no representation in politics. This group also feels that they are not being listened to by politicians and is significantly more negative about them than the higher educated (Bovens & Wille, 2010). The education gap can also be seen in political participation (Bovens & Wille, 2010), political interest, sophistication and engagement (Hawhverdian, Van der Brug & De Vries, 2012), and in political representation (Aaldering, 2017). These factors all have led to a 'diploma democracy' in the Netherlands: citizens with the highest levels of education currently have the majority in the political arena (Bovens & Wille, 2014).

The educational gap in political trust can be partly explained by the difference in cognitive abilities. Education helps people to acquire more skills and promotes cognitive engagement with politics. Higher educated have more political knowledge and understanding of the difficult language that is used in the political domain (Hawhverdian, Van der Brug & De Vries, 2012). This difference in political knowledge, understanding and engagement is also reflected in Van Elsas (2015). In the rational perspective on political trust, the group with more cognitive abilities and more political knowledge would indeed be better able to evaluate the political system. This makes education an

important predictor of political trust (Van Elsas, 2015). Hooghe, Marien and Dassonneville (2015) argue that students understand political life better because of their education experiences. It improves the knowledge on the systems in their country. This understanding results in a higher likelihood to support the system. This is seen in the findings of Hawhverdian and Mayne (2012), where the trust of the higher educated is more negatively affected by corruption than the lower educated, suggesting they have a higher ability to accurately perceive an ill functioning political system.

Education is not only an indicator for cognitive abilities, but also for social position and status. The higher educated are socialised in an environment that promote civic norms, such as the importance of participating in a democracy (Hadjar & Beck, 2010). Verba, Schlozman and Brady (1995) argue that political socialisation for a large part occurs during education. Also, parents have major influences on the socialisation of their child: higher educated parents are more likely to expose their children to political norms due to their own political participation and discussions at home (Verba, Schlozman & Brady, 1995). Furthermore, the higher educated have a more secure socio-economic position in society. This leads to the feeling that the government is acting in their favour, which would lead to higher levels of trust (Van Elsas, 2015). Moreover, the lower educated are found to experience more societal discomfort, which causes lower levels of political trust (Van der Waal, De Koster & Van Noord, 2017). The socio-cultural approach to political trust would thus predict that the higher educated, who have a better position in society, have less reason to distrust the political system. This would work the other way around for the lower educated, who may feel neglected by politicians.

Even though in this thesis I am not able to focus on the differences in cognitive, economic or socialisation aspects in education level, the literature all points towards the same observation: there is a difference in political trust among different levels of education. This leads to the first hypothesis of this research:

H1: There is a positive effect of level of education on local political trust in Rotterdam.

A last note: an increasing amount of literature about the education gap in political trust (and other related political attitudes and behaviours) focusses not on the economic or cognitive difference between education levels, but on the cultural differences. For example, Van der Waal and De Koster (2015b) argue for the dereification theory, which states that the higher educated have more cultural capital, which leads to a dereified worldview. This enables them "to recognise cultural expressions and to comprehend their meaning is conducive to what can be termed the 'denaturalization of culture'" (Van der Waal & De Koster, 2015b: p. 318). The increased cultural capital of the higher

educated thus leads to a different worldview than the lower educated, which translates to political attitudes and behaviours as well. This cultural theory does prove its importance, however in this thesis it will not be my focus.

Economic performance and the Great Recession

Next to the level of education, another factor that is important to determine political trust is the economic performance of a country. Economic performance is crucial to the amount of support for the government: lower economic performance will lead to lower political trust (Van der Meer, 2018; Bovens & Wille, 2011; Armingeon & Ceka, 2014). Following this idea, it was found that the Great Recession of 2008 had a negative impact on political trust (e.g. Van der Meer, 2018; Tormos, 2019). This economic crisis started in the United States in 2007, on the housing market. The financial problems that originated there, ultimately led to the downfall of the Lehman Brothers in 2008, an investment bank, which was the biggest bankruptcy in US history. This started a chain effect in the financial world, which led the world economy into a crisis (Dutch Statistics, 2009). The following section will explain how a declining economic state of a country, for example as a consequence from an economic crisis, can affect the political trust of its citizens.

The effect of economic performance and political trust works in two ways: sociotropic and egotropic. First, the sociotropic dimension refers to "citizens' perceptions of the general functioning of the economy" (Tormos, 2019: p. 1210). Hetherington and Rudolph (2008), for instance, show that the 1970s were a period with high inflation, declining income and high unemployment rates in America. During this period, political trust declined. When the performance of the economy improved, political trust also increased.

Factors such as economic growth, deficits, unemployment and inflation are found to influence political trust. An economic recession, which affects these factors, will lead to a decline in political trust (Van Erkel & Van der Meer, 2016). In line with this, the Great Recession caused a significant decline in political trust after 2007 in Europe (Van der Meer, 2018). The rise in distrust in 2008 was also found by Van der Waal, De Koster and Van Noord (2017). Kroknes, Jokobsen and Grønning (2015) saw a decline in political trust in countries who were affected by the financial crisis, and argued this was also due to the rising levels of unemployment because of the crisis. Trust in the European Union also took a hit after the economic crisis in 2008, which is in line with the decline in trust in national governments at this time (Armingeon & Ceka, 2014).

Secondly, the egotropic dimension refers to how the economic performance affects the personal situation of citizens (Tormos, 2019). Economically disadvantaged citizens perceive the system as working against them: the government is not responding to their needs, which lowers their political trust. In this way, citizens punish or reward their government according to their evaluation of the state of the economy (Van der Meer, 2018). Economic issues become more salient for the public during times of lower economic performance, for example in an economic crisis like the Great Recession. Large parts of the population suffered from the economic consequences of this recession (Tormos, 2019). This idea that a decline in economic performance has a stronger effect on political trust than times of economic prosperity, is also found in Van der Meer (2018) and Hetherington and Rudolph (2008). The latter ones argue this is because citizens have less reason to care about the state of the economy when a country is performing well (Hetherington & Rudolph, 2008).

Furthermore, Tormos (2019) argues that sociotropic and egotropic dimensions combined explain why citizens have the belief that their basic demands are not met by their political system during bad economic times. Consequently, this perception that the (local) government is not responsive to their citizens, and the lower feeling of political efficacy, lowers the (local) political trust (Hansen, 2013; DeHoog, Lowery & Lyons, 1990).

In line with these theories, the Great Recession led to deteriorating economic consequences in the Netherlands: the inflation rose above 3% and the economy shrunk with 0.7% at the end of 2008. Of the large cities, Rotterdam was most impacted by the economic decline, due to decreasing in- and export. The economic growth in this city decreased from 4.4% in 2007 to 2.4% in 2008 (Dutch Statistics, 2009). Furthermore, the unemployment increased from 5.8% in 2008 to 12.6% in 2014 (Custers, Engbersen & Snel, 2019). These numbers indicate that Rotterdam was also severely impacted by the economic crisis. This thus leads to the following hypothesis:

H2: The Great Recession, and its declining economic performance, has a negative effect on local political trust in Rotterdam.

Economic recession, education and local political trust: what can we expect?

In this last section, I will argue why the predicted negative effect of the economic recession on local political trust would be stronger for the lower educated than the higher educated. Education is an important indicator for an individual's economic position: it relates to income, job security and unemployment. The lower educated have a weaker socio-economic position in society and will be more vulnerable to economic changes (Van der Waal & De Koster, 2015a). Tormos (2019) argued

that there is a higher economic risk and more concern among the groups in society with lower income and less education. These groups are likely more affected by a declining economy, and also have a weaker personal safety net than the higher educated and the higher income groups. Cuts in the welfare state, such as benefits and services, has a larger effect on the more vulnerable groups, who are more reliant on these government services (Tormos, 2019).

In a city like Rotterdam, which is known for its large economic inequality (Custers, Engbersen & Snel, 2019), this difference in the level of local political trust should then be present. Especially since economic inequality can also affect political trust. Higher levels of inequality lead to the belief among the lower educated that the government is not representing their needs (Van der Meer, 2018). This overlaps with the finding that income inequality also has a negative effect on local political trust. Lower income groups have no benefit in supporting a system that continues the status quo. Also, local political trust may be lowered by this inequality since there are more concerns about the fairness of policy outcomes (Rahn & Rudolph, 2005).

The effect of economic performance on political trust is also found to be stronger among the lower educated. This is because this group will sooner hold the government accountable for the decline in economic performance in their country (Van Erkel & Van der Meer, 2016). The biggest effects of unemployment due to the recession are found among the lower educated. The unemployment rate is still higher in this group than the middle and higher educated in 2012 (Van der Waal, De Koster & Van Noord, 2017). To conclude, there are multiple structural reasons why the lower educated are more affected by a declining economy as a result of an economic recession. This would translate into lower levels of local political trust, since the perception of this group that the government is working in their favour would be lower. This leads to the final hypothesis of this thesis:

H3: The negative effect of the Great Recession on local political trust is stronger among the lower educated.

The case of Rotterdam

Rotterdam is an interesting case to research local political trust in the Netherlands. It is one of three cities in the country where more than half of its population is not originally Dutch (Dutch Statistics, 2021b). Citizens in Rotterdam have originated from over 180 nations, which makes Rotterdam a diverse city. This has made immigration and integration salient issues in the city. Three months before the municipal elections in Rotterdam in March 2002, the local political party Leefbaar

Rotterdam (Liveable Rotterdam) was formed. This populist and anti-establishment party was very vocal on immigration issues and the Islam, and got an increasing amount of attention in the media. After the election, Leefbaar Rotterdam replaced the Labour Party as the biggest party in the city council with 37% of the votes (17 seats out of 45). Over a decade later, the opposite side of the political spectrum emerged in Rotterdam: the Islamic party NIDA won 2 seats in the Rotterdam parliament in the election of 2014. Four years later, they consolidated these two seats, and a second Islamic party, DENK, also won 4 seats (Scholten, Crul & Van de Laar, 2019).

These parties were new in the local council of Rotterdam, which all got in the parliament in the first election they participated. This indicates that the citizens of Rotterdam were attracted to these parties, so that they could represent their interests. This would thus mean that the electorate of Leefbaar Rotterdam, NIDA and DENK are better represented in their local government. More political representation will lead to higher political trust. Moreover, it has been found that populist parties, such as Leefbaar Rotterdam, have caused an increase in representation of lower educated citizens (Aaldering, 2017). Populist parties have increased the visibility of this group in politics (Bovens & Wille, 2010). While most populist parties do not govern, but stay in the opposition, Leefbaar Rotterdam has also made it into the coalition of Rotterdam multiple times. Additionally, NIDA-voters were found to be among the lower income groups (Scholten, Crul & Van de Laar, 2019). Since the lower educated is on average less present in the political domain, this higher rate of political representation of this group in Rotterdam could be an indication that they would not necessarily have lower local political trust than the higher educated, as theorized before, making this an exceptional case.

In contrast to this, previous theories have also predicted that large inequalities will lead to a bigger gap in political trust between the education levels (Van der Meer, 2018). In Rotterdam, there are high levels of economic inequality (Custers, Engbersen & Snel, 2019). This would then predict low levels of local political trust in Rotterdam. Additionally, the fact that the unemployment in this city more than doubled in the period of 2008-2012, would also lead to lower local political trust (Custers, Engbersen & Snel, 2019; Van Erkel & Van der Meer, 2016). Lastly, the finding from Denters (2002) that local political trust is higher in smaller municipalities, would also argue for a negative impact on political trust in Rotterdam, which is one of the bigger municipalities in the Netherlands. There are many factors that could be influencing the political trust in Rotterdam, but so far there has been no conclusive research on this issue.

3. Method and data

Data

I used the Rotterdam Neighbourhood Profile (*Wijkprofiel Rotterdam*) survey to study developments in local political trust. This cross-sectional survey currently has eight waves of data available: 2008, 2009, 2010, 2011, 2013, 2015, 2017 and 2019, which makes it possible to analyse the developments over time. The Rotterdam Neighbourhood Profile survey includes 14 areas and 71 neighbourhoods in Rotterdam. The data was originally collected with the goal to provide information on the physical and social state and the safety of Rotterdam. It is an instrument for the municipality of Rotterdam to help them and the smaller boards, councils and committees to develop policies or plans for the neighbourhoods. The dataset is a combination of administrative objective data, using data from multiple (governmental) organisations, and survey data, using surveys about the experience of citizens of the city themselves (Municipality of Rotterdam, 2021).

The number of respondents in the different waves varies from 11.000 to 16.000, with an amount of 110.790 respondents in the combined final dataset. The collected data is based on stratified samples from the different neighbourhoods in Rotterdam: depending on the size of the neighbourhood, 175 to 350 respondents, aged 15 or older, were surveyed. Only a few small neighbourhoods have fewer respondents. The samples were randomly drawn from the population register (*Basis Registratie Personen*). The questionnaire was available in multiple languages, to increase the accessibility for the respondents. The collection of the data was spread out over two periods every wave, in the spring and in the fall, which decreases the influences of possible incidents (Municipality of Rotterdam, 2021).

The response rate of this survey is low: it varies between 20% and 25% (Custers, 2021). This means there is a probability that not all groups might be represented in the data, which may skew the results of the descriptive analyses. Because of this, I have used a weight to statistically correct the data on these analyses. Since education is an important predictor variable in this thesis, the groups within this variable, which will be further explained in *Operationalisation*, were corrected with a statistical weight in order to descriptive analyses that are representative for all education groups.

An important note on this dataset, as mentioned in the introduction, is that the first available year is 2008: the same year as the Great Recession. It is a disadvantage that there is no data for the years before the crisis. However, I would argue that the effects of the economic crisis are probably most influential after 2008. Additionally, the availability of this dataset and the familiarity with this

dataset of my thesis supervisor were two also big advantages. I will discuss this limitation further in the discussion.

Operationalisation

There are three main variables that were operationalized in this thesis. First, the concept of *local political trust*, which was measured using the question 'I have (a lot of[1]) trust in the municipality of Rotterdam'. This variable reflects the personal evaluation of the respondent towards this political institutions. It was measured using the categories 'strongly agree', 'agree', 'neither agree or disagree', 'disagree', 'strongly disagree' and 'don't know/no opinion'. I recoded this variable the opposite way, which means a score of 1 is 'strongly disagree' and a score of 5 is 'strongly agree'. A higher score thus means higher levels of local political trust. The 'don't know/no opinion' was coded as missing, which was 12.2% of the completed dataset. This answer does imply that these respondents do not have high levels of interest in the local government, and would likely be into the category with lower local political trust, or at least low levels of political interest. Notable is that there are more missing values when the education level decreases. The lower, middle and higher educated, which I will define in the next paragraph, have respectively 15.5%, 12.7%, and 9.2% missing values (Appendix A). This could also show that the lower educated have less interest in local government than the higher educated.

The second important variable of this research is *education*. This was measured by the question 'What is your highest level of education, which you completed with a diploma?'. The categories were as follows: no education; lower education (primary/middle school, special education); lower vocational education (LBO) or practical education; MAVO, VBO or VMBO (lower to middle level of high school); secondary vocational education (MBO); MULO or MMS; HAVO (middle tot high level of high school); HBS, VWO, lyceum, atheneum or gymnasium (high level of high school); higher professional education (HBO); and university. These categories were coded into three different categories: lower education (all levels below MBO), middle education (MBO until gymnasium), and higher education (HBO and university). A higher score on this variable thus indicates a higher level of education. 4.2% of the respondents did not fall into these categories or answered 'I don't know', and were coded as missing values. The three categories were recoded into dummy variables.

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[1] Since the wave of 2013, these words were removed from this question in the survey.

The last key concept in this thesis is the economic performance of a country, and the Great Recession in specific. However, this concept is not directly measured in the survey of this dataset. In this analysis, I will use an indicator of the economic crisis: the *unemployment rate* in Rotterdam. This variable was not in the original questionnaire, which means I created a new variable with the rates of unemployment in Rotterdam in the same years as the waves of the survey. The rates were, in chronological order: 5.8%, 6.7%, 8%, 8.2%, 12.3%, 12%, 8.1%, and 5.9%. I obtained this data from the Dutch Central Bureau of Statistics (2021a).

To investigate the third hypothesis, I have created an interaction of *education* and *unemployment rate*. I computed two interaction variables: the first with the middle education dummy and the second with the higher education dummy. These variables allowed me to investigate if there is a moderation of the economic crisis on the relationship between education levels and trust in the municipality of Rotterdam[2].

Furthermore, I will control for a few variables that will likely have an influence on the relationship with education or the economic crisis on local political trust. First, *gender*, a factor which is often controlled for and which is often correlated with important concepts. This variable was only measured in male and female in this dataset[3]. The second control variable is *age*, which was measured in years. This is also an important factor to take into account for the same reason. The youngest respondent was 15, and the oldest was 105, with the mean age being 49,6. Third, the *ethnicity* of the respondent will be controlled for. The majority of the population in this research is Dutch, with the other categories being Surinamese, Antillean, Cape Verdean, Turkish, Moroccan and other. The six categories were coded as dummy variables, with Dutch being the reference category.

Since a likely confounder as an effect of the economic crisis could be the extent of *getting by financially*, this will be the fourth control variable. A household that is not doing well financially, might have negative feelings towards the (local) government, who is supposed to protect them. Thus, this variable might influence the level of trust in the municipality. This was measured with the question 'Are you able to make ends meet?', and had the following possible answers: very hardly/not at all, hardly, moderately, easily, very easily, don't know and don't want to say. The latter two

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[2] I have performed an additional regression analysis using the different years of the survey as a proxy for the course of the economic crisis and an interaction variable with *year* to measure the effect of the economic crisis on the relationship between education and local political trust.

[3] In a sociological thesis, I cannot gloss over the fact that the binary view on gender is too simplistic: in 2021, we know that there are more genders that one could identify with. However, the dataset does not take this into account.

options were coded as missing. A higher score in this variable thus means that the respondent financially gets by more easily.

Fifth, I have also controlled for the *monthly income per household*. For this, I have created a new variable. The variable 'household', which stated if the respondent lived in a household with one or two breadwinners, was combined with the variable 'average net monthly income', which had five categories of income, and a 'don't know' and 'don't want to say' option. This was recoded into five categories: minimum income: for a single-breadwinner household less than €1.150 a month, for a dual-breadwinner household less than €1.600 a month; minimum to modal income: for a single-breadwinner: 1.150 to €2.150 a month, for a dual-breadwinner household: €1.600 to €2.150 a month; modal to double modal: for all households: €2.150 to €3.500 a month; more than double modal: 3.500 or more a month[4]; and lastly, other income groups, which contains all missing variables on income, in order not to lose this groups of respondents (roughly 26%) in the analysis. The height of modal income correspond with the national levels in the same years as the survey. These five categories are coded into dummy variables.

The last control variable I have taken into account is *labour status*. The answer categories varied per wave of the survey, but in this final dataset, the variable was divided into six categories: employed (respondents who work more than 12 hours a week), unemployed (unemployed, incapacitated for work, receivers of financial aid), retired, homecare (housewife/-man, care of children), student, and other. The six different categories were recoded into dummy variables as well.

All of the descriptive statistics such as the mean and N of the categories of the variables are shown below in Table 1. The completed dataset consisted of 110.790 respondents, from which 87.666 cases will be included in the analysis. This means 20.9% of the dataset is missing from the analysis. Most missing values were found on *trust in municipality* (12.2%) and *getting by financially* (7.7%).

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[4] The amounts of the answer categories differed per wave of the survey since this was controlled for inflation over the years. The amounts mentioned are derived from the most recent survey in 2019.

Table 1: Descriptive statistics of all variables

	Mean (SD)	Categories	%
Trust in municipality	3.28 (0.94)	Strongly disagree	4.8
		Disagree	15.5
		Neither agree/disagree	31.3
		Agree	44.2
		Strongly agree	4.2
Education level	-	Lower	32.1
		Middle	29.7
		Higher	38.2
Unemployment rate	8.48 (2.36)	-	-
Gender	-	Male	46
		Female	54
Age	49.56 (17.66)	-	-
Ethnicity	-	Dutch	57.9
		Surinamese	8.7
		Antillean	2.9
		Cape Verdean	2.4
		Turkish	6.1
		Moroccan	3.6
		Other	18.3
Getting by financially	3.32 (1.01)	Very hardly	5.6
		Hardly	12
		Moderately	38.3
		Easily	32.5
		Very easily	11.6
Monthly income	-	Minimum	15.5
		Min. to modal	22.1
		Modal to double modal	22.9
		More than double modal	20.0
		Other	19.4
Labour status	-	Employed	54
		Unemployed	9.5
		Retired	21.9
		Housecare	7.4
		Student	5.2
		Other	2

N = 87.666.

Method

Using the 26th version of SPSS, I performed two different analyses. First, I have conducted a descriptive analysis of the main variables in this thesis. This analysis will give an overview of the development of the level of local political trust, with a comparison of different educational levels, and of the unemployment rate over the years.

Secondly, I performed a multiple regression analysis, including four different models. In the first model, I only include the first independent variable, *education*, to see the effect on *trust in the municipality*. I added all control variables, *gender*, *age*, *ethnicity*, *getting by financially*, *monthly income per household*, and *labour status* in the second model. In the third model, I added the second independent variable: the *unemployment rate*. The two interaction terms between education and unemployment rate were added in the fourth model.

Ethics and privacy

As mentioned, I will be conducting a secondary data analysis in this thesis. This means that all data is already anonymized. No answers of any respondent from 2008 until 2019 can be traced back to them. I have access to the complete dataset with all eight waves combined through a shared OneDrive from my supervisor, Gijs Custers. I have saved this dataset on my own laptop, which I will delete after this thesis is finalised. Of course, I will not share this data with anyone else. Also, I have filled in the Ethics and Privacy Statement for further information, which is included in Appendix B.

4. Results

Descriptive analysis

In this section the graphs for the first part of the analysis are described. For this descriptive analysis, the weight was turned on to statistically correct the different levels of education. In the first graph (Figure 1), we can see an overall decline in trust in the local government after 2009, and a rise after 2011. From 2011, there is a two year interval instead of one, which may skew the incline of trust in municipality. In 2013, five years after the economic crisis started, the level of local political trust is roughly at the same level as in 2008. The graph also shows that the middle educated have the least trust in the local government over the course of the years. Except for 2010 and 2011, the higher educated show the highest levels of trust in the municipality. The lower educated start with similar levels of trust in the municipality as the middle educated in 2008, after this there is a gap between these two groups. This gap disappears again from 2015 onward. The overall levels of trust show similar patterns until 2011. From this year onward the higher educated show a stronger increase in trust in the municipality than the other two levels of education.

Figure 1: The level of trust in the municipality of Rotterdam of different educational groups from 2008-2019.
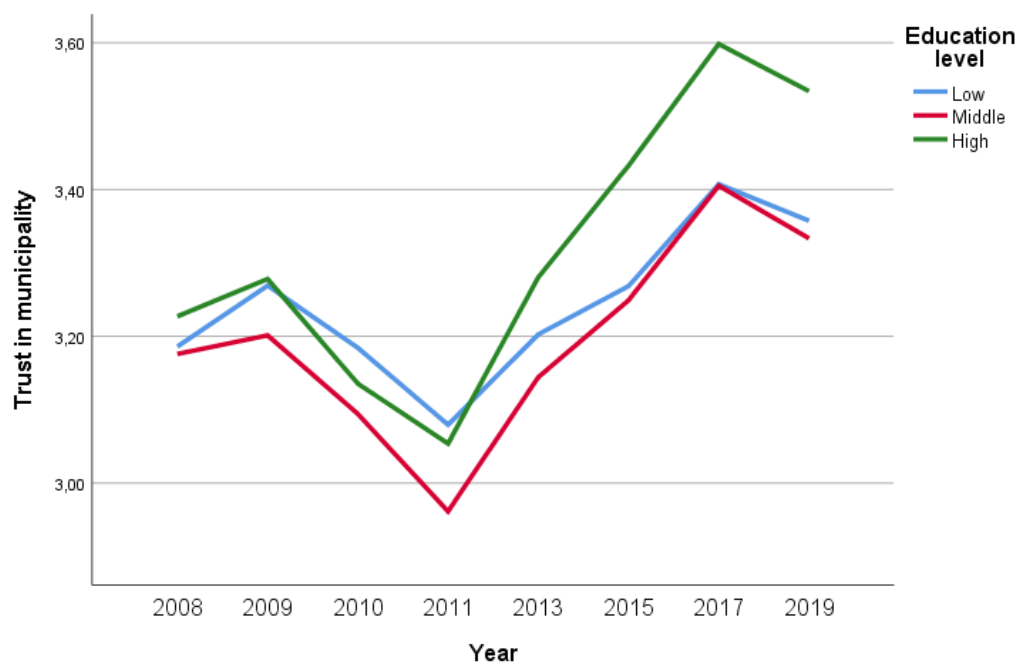
In the second graph (Figure 2), the unemployment rate of Rotterdam is shown over the years. Even though the economic crisis started in 2008, we can see that unemployment rate keeps rising until 2013, when it hits 12,3% (in 2014, which is not in the dataset, this percentage rose to 12,6% (Dutch

Statistics, 2021a)). In the graph, the unemployment level decreases from 2015 onward, until it reaches the same level of unemployment as in 2008. When comparing this graph to the previous figure, the lines show different courses over the years. This means that the level of trust in the municipality does not show the same development as the unemployment rate, as I would expect based on my theoretical framework. This analysis thus gives no evidence that the economic crisis had a major effect on the level of local political trust. However, to properly test the hypotheses of this thesis, we have to take a look at the results of the regression analysis.

Figure 2: The unemployment rate of Rotterdam from 2008-2019.
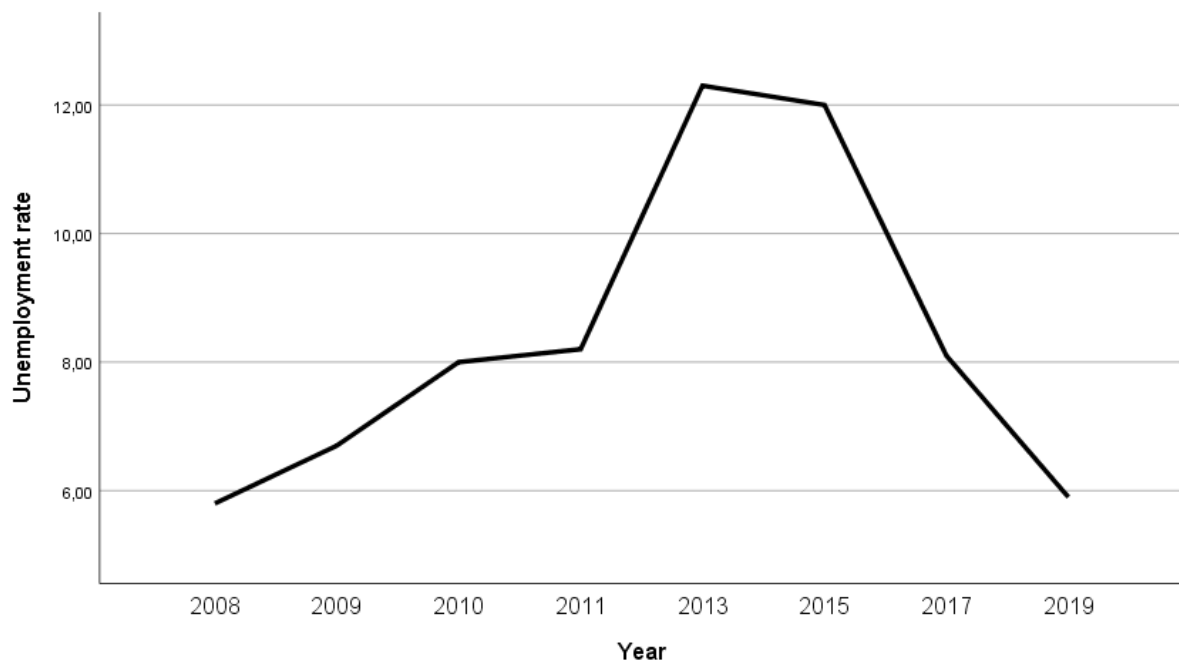
Regression analysis

The second analysis which I conducted was a multivariate regression analysis. First, the assumptions of a regression analysis needed to be met. For this, the outliers were checked, the normal distribution, linearity, homoscedasticity, the independent residuals, and multicollinearity. All these assumptions were met[5].

---

[5] *See Appendix C for the graphs to show that the assumptions of outliers, normal distribution, linearity and homoscedasticity were met. For the independent residuals: Durbin-Watson test showed a value of 1.950. No multicollinearity was found: the VIF values were all lower than 3.*

Table 2: Regression analysis on trust in the municipality of Rotterdam.

	Model 1	Model 2	Model 3	Model 4
	B (SE)	B (SE)	B (SE)	B (SE)
Constant	3.243 (.006)**	2.754 (.019)**	2.793 (.024)**	2.797 (.029)**
Education:				
Lower education (ref.)				
Middle education	-.024 (.008)**	-.034 (.008)**	-.032 (.008)**	-.026 (.030)
Higher education	.104 (.008)**	.065 (.009)**	.062 (.009)**	.049 (.029)
Gender (male = ref.)		.015 (.007)*	.016 (.007)*	.015 (.007)*
Age		.000 (.000)	.000 (.000)	.000 (.000)
Ethnicity				
Dutch (ref.)				
Surinamese		.102 (.012)**	.102 (.012)**	.102 (.012)**
Antilleans		.174 (.020)**	.175 (.020)**	.175 (.020)**
Cape Verdean		.274 (.022)**	.275 (.022)**	.275 (.022)**
Turkish		.076 (.014)**	.077 (.014)**	.077 (.014)**
Moroccan		.214 (.018)**	.215 (.018)**	.215 (.018)**
Other		.168 (.009)**	.169 (.009)**	.169 (.009)**
Getting by financially		.148 (.004)**	.147 (.004)**	.147 (.004)**
Monthly income				
Minimum (ref.)				
Minimum to modal		-.077 (.011)**	-.077 (.011)**	-.077 (.011)**
Modal to double modal		-.135 (.012)**	-.135 (.012)**	-.135 (.012)**
More than double modal		-.080 (.014)**	-.080 (.014)**	-.080 (.014)**
Other		-.162 (.012)**	-.161 (.012)**	-.161 (.012)**
Labour status				
Employed (ref.)				
Unemployed		.051 (.012)**	.053 (.012)**	.053 (.012)**
Retired		.132 (.012)**	.132 (.012)**	.132 (.012)**
Homecare		.081 (.014)**	.080 (.014)**	.080 (.014)**
Student		.218 (.016)**	.217 (.016)**	.217 (.016)**
Other		.141 (.023)**	.140 (.023)**	.140 (.023)**
Unemployment rate			-.005 (.001)**	-.005 (.002)*
Lower education x unemployment rate (ref.)				
Middle education x unemployment rate				-.001 (.003)
Higher education x unemployment rate				.002 (.003)
R²	.004	.032	.032	.032

* $p<.005$, ** $p<.001$.
N = 87.666.

In the first model, we can see a significant difference in trust in the municipality for different education levels. This significant effect remains in the second model, when adding the control variables. The middle educated are negatively correlated with local political trust, whereas the higher educated show a positive effect as opposed to the lower educated. This means that the middle educated have significant lower levels of trust in the municipality than the lower and higher educated, as was also shown in Figure 1. The higher educated have significant higher levels of trust than the other levels of education. However, the effect sizes are quite small. In the second model, I only found an effect of b=0.065 in the higher educated and b=-0.034 in the middle educated. This means that the difference in the score on the dependent variable, which was measured on a scale of 1 to 5, is only 0.065 higher for the higher educated than the lower educated. Thus, even though there is a significant difference in education levels, the effect of education on trust in the municipality is small.

The education variable explains only 0.4% of the dependent variable in the first model. This also shows that education is not a strong predictor of the level of local political trust. When adding the control variables, this percentage rises to 3.2% in the second model, which suggests that the control variables predict the level of trust in the municipality better than education alone in this analysis. These results mean that we can partially confirm the first hypothesis: 'There is a positive effect of level of education on local political trust in Rotterdam'. Even though the higher educated have the most trust in the municipality of Rotterdam, which was as expected, I did find that the middle educated have significantly lower levels of trust relative to the lower educated. Thus, there is no linear relation found between education and trust in the local government.

In the third model, the unemployment rate was added, as a proxy for the effect of the economic crisis. This had no additional effect on the R^2. Even though the effect of unemployment rate is significantly negative, the effect is only b=-0.005. Since trust in the municipality is measured on a scale from 1 to 5, this effect size is very small. This finding means that when the unemployment level increases with 1%, the level of trust in the municipality decreases with 0.005. Since this is in accordance with the second hypothesis, that suggests that the Great Recession has a negative effect on local political trust in Rotterdam, this hypothesis could be accepted. However, in line with Bernardi, Chakhaia and Leopold (2017), attention has to be paid to the minimal effect size and not only the significant finding. So, from these results, I have to conclude that this variable not a convincing predictor of local political trust.

In this model, we can also see that most control variables show significant effects on trust in the municipality of Rotterdam. Gender shows a very small significant effect. There is a positive effect,

which means women have significantly more local political trust than men. Age has no effect (b=.000). The regression shows that all ethnicities show a higher level of local political trust than the Dutch. This effect size is small for all ethnicities, especially for the Turkish population.

Furthermore, the level of getting by financially is positively correlated with trust in the municipality and shows a moderate effect. This means that, as I expected, if the respondent gets by more easily, there is more trust in the municipality. The opposite idea is shown in the results of monthly income per household. With 'minimum income' as reference category, all other three categories, show lower levels of trust in the municipality. This would mean that respondents with higher income have less local political trust than the group with minimum income. This would thus be in contrast with the previous finding. It also contrasts the finding in education differences, kept in mind that higher educated citizens on average also have the highest incomes. Lastly, there are significant differences in labour statuses. Most notable, all categories show higher levels of trust than the reference category of employed respondents. It shows small positive effects in unemployed and homecare, but moderate positive effects in retired, student and other respondents.

In the last model, the interaction effect is shown. I predicted that the lower educated are more vulnerable, and would thus be more affected by the economic crisis than the higher educated. Therefore the third hypothesis was: 'the negative effect of the Great Recession on local political trust is stronger among the lower educated'. In the fourth model, it is shown that no significant effect was found of the interaction between unemployment rate and education on trust in the municipality. This means that the effect of the economic crisis does not differ for the lower or higher educated. My third and final hypothesis therefore needs to be rejected[6].

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[6] To control for the development of political local trust, I also ran two regression models including year as a proxy for the economic crisis instead of the unemployment rate (see Appendix D). This showed similar results per year as seen in Figure 1. The R^2 did show a higher percentage of explained variance with this variable in the model: 5.1%. The interaction effect only showed significant (negative) results in 2009 and 2019.

5. Conclusion

In this thesis, I have investigated the relationship between local political trust, education and the Great Recession in Rotterdam. The expectation was for the higher educated to have higher levels of trust in the municipality than the lower educated (H1), the economic crisis of 2008 to have a negative effect on local political trust (H2) and lastly, a stronger negative effect of this crisis for the lower educated (H3). The Rotterdam Neighbourhood Profile survey with waves from 2008 until 2019 was used to test these hypotheses. Some findings were in line with these expectations, but to a minimal degree.

First, I found significant differences in educational levels in local political trust. However, contrary to the prediction, the middle educated turned out to be the group with the lowest levels of local political trust. Furthermore, the small effect that was found means that the differences in educational levels are not a strong predictor of local political trust. This is a surprising finding, since education does have a strong relationship with trust on the national level (e.g. Bovens & Wille, 2010). This contrast shows that political trust on the local level does differ from the national level, since the common findings do not apply here. The view that political trust increases with more cognitive abilities and political knowledge (Van Elsas, 2015) or with higher levels of political socialisation (Verba, Schlozman & Brady, 1995) is not found in Rotterdam.

The effect of the economic crisis on local political trust was also quite weak. Trust in the municipality strongly increased after 2011, while the unemployment rate, and thereby the severity of the Great Recession, was still on a rise at this time. From this, I would argue that the economic crisis is clearly not a major factor in what predicts the level of trust in the municipality in the citizens of Rotterdam. It could be that the economic crisis is a (supra)national issue, and that citizens are able to distinguish this from their opinion on the local government. It seems that the idea that citizens are punishing their political actors for the declining state of the economy (Van der Meer, 2018), or have the belief that their basic needs are not met by these actors (Tormos, 2019), do not apply to the local level of politics. Even though in this research there is no evidence for an effect of the sociotropic dimension, which consists of the perception of citizens of the economic state, one of the control variables did show signs of an egotropic effect, which means the economy affected their personal situation. It was found that there are lower levels of trust in the municipality, when it is harder to get by financially. This does show that these citizens might perceive their local government to be working against them (Van der Meer, 2018).

Lastly, I did not find a moderating effect of the unemployment rate on the relationship between education and local political trust. Even though it is still possible that the lower educated

are affected more strongly by the economic crisis, as for example Van der Waal and De Koster (2015a) found, my findings suggest that this hardship does not affect their opinion about the local government. Tormos (2019) wrote that the lower income and lower educated groups are likely more affected by cuts in the welfare state due to an economic crisis as they are more vulnerable. Although the municipality is responsible for these budget cuts on a local level, it seems that this does not affect the level of trust. It could be that the economic factor does not play a large role in shaping local political trust, or at least in the case of Rotterdam. The finding of Rahn and Rudolph (2005) that income inequality is a good predictor of local political trust is not reflected in this study. This is surprising, since the city is known for the high economic inequality (Custers, Engbersen & Snel, 2019).

Discussion

As showed in the results, trust in the municipality of Rotterdam rose among all educational levels from 2011 onward. In this thesis, I have found no explanation for this finding. So, other explanations need to be investigated to account for the findings in this research. There seems to be a difference in what affects political trust on the national level and on the local level. It could be that local political trust is not affected by economic factors. Only a small effect was found for respondents who have a harder time to get by financially, which points to an effect from the egotropic dimension. However, the variables used in this analysis only explained a small part of trust in the municipality. Social factors could affect political trust on a local level, such as the ethnic communities in a neighbourhood (Fennema & Tillie, 1999) or the trust in fellow citizens, which as yet only has been investigated on the national level (Hawhverdian & Mayne, 2012). Since there is a lack of research on the concept of local political trust, these factors need to be taken into account in further investigation on the topic.

The idea of responsiveness is also very important in local political trust (Hansen, 2013). This could mean there might be a correlation in the feeling of being represented and the level of local political trust in Rotterdam. The small effect of education could be explained by the fact that the lower educated are better represented in this city compared to the rest of the Netherlands. Political parties such as Leefbaar Rotterdam, NIDA, and DENK have made groups such as the lower educated and Islamic electorate more visible in the city (Scholten, Crul & Van de Laar, 2019). The finding that non-Dutch ethnicities have higher levels of trust in the local government coincides with this idea. Also, it might be easier to feel a connection with the politicians on a local level, since they stand closer to the citizens of the city. It is easier to see who is responsible for the decision-making in politics on a local level. For example, it has been found that political participation is higher in a decentralised system, where there are more access points for citizens (Vráblíková, 2014). It is also

good to note that citizens are less interested in local politics compared to the national level to begin with, illustrated by the lower turn-out in local than national elections (Municipality of Rotterdam, 2018a). A large part of the citizens of Rotterdam are thus already not engaged with the local government.

As seen in Figure 1, the higher educated do show higher levels of trust in the municipality than the middle and lower educated from 2011. This could be explained by the policy programmes *Sterke Schouders ('Strong shoulders')* and *Kansrijke wijken* ('*Promising neighbourhoods*') of the Rotterdam municipality (Municipality of Rotterdam, 2018b). The last decennium, the municipality has focussed on attracting the higher educated to the city with these programmes. The needs of the higher educated are met by the local government, which could account for the higher levels of trust found in this group. Also, the missing values on local political trust in this dataset were higher among in the lower educated. This could point towards a higher level of disinterest in local government of the lower educated.

Lastly, I found an effect of income on local political trust. Even though the higher educated have more local political trust than the lower educated, income has a negative effect on local political trust. This makes this an interesting factor to further look into, since there is no literature that has focused on this subject. Income is usually 'only' a control variable, and it has shown a negative, a positive (Lineberry & Sharkansky, 1971, in: Li, 2004) or no effect (Mishler & Rose, 2001) on political trust.

There were some limitations in this thesis that need to be addressed. First, the dataset that was used has some limitations. One of the main concepts in this research, the economic crisis, was not present in the dataset. The crisis was measured using only one indicator: the height of the unemployment rate. There are more indicators, such as inflation, economic growth or deficits of the government budget to measure the full concept of an economic crisis. Also, there were no available measures of the subjective evaluations of the economy in the dataset. The perception of citizens of how the economy is functioning, together with the mentioned objective measures of the economic, are important predictors of political trust (Tormos, 2019). The sociotropic and egotropic dimension were represented in the analysis, but to a minimal extent. To investigate the effect of economic performance on local political trust, more indicators of this concept need to be included in the dataset.

Additionally, there was only one indicator for the level of trust in the local government. The Rotterdam Neighbourhood Profile survey was developed as an instrument for the municipality and

the smaller committees to develop policy and plans (Municipality of Rotterdam, 2021). This means that this dataset was not meant to research scientific issues and it lacks some important variables and indicators.

Furthermore, the first wave in the dataset is from 2008, the same year the Great Recession started. I argue there is no immediate effect of the crisis on the opinion that citizens have of their local government in this same year. As seen in the unemployment rate, the severity of the crisis increased steadily every year. There was no instant effect of the crisis which would have influenced the attitudes of citizens overnight. As Van der Meer (2018) found, political trust declined after 2008, mainly since 2009. However, it has to be noted that there is no measure in the years before the crisis. If there was a significant change in the years before 2008, this is not taken into account in this thesis.

Lastly, since two important factors to predict political trust on the national level have a small to no effect on the local level, a needed addition to the existing literature would be to conduct some qualitative research on what affects a citizens' opinion towards the local government. It is important to further research what influences the attitudes of citizens towards politics on the local level and how people form these attitudes. This could give municipalities an insight on how to increase the trust of their citizens. Since there is currently a lack of datasets on the local level, I would recommend the development of similar datasets to the Neighbourhood Profile survey. Even though it is missing some key variables, it could give interesting insights on the attitudes and behaviours of citizens on the local level.

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7. Appendix

Appendix A

Figure 3: Scores of educational levels on the missing values of trust in municipality.

Ethics and Privacy Statement

ERASMUS UNIVERSITEIT ROTTERDAM
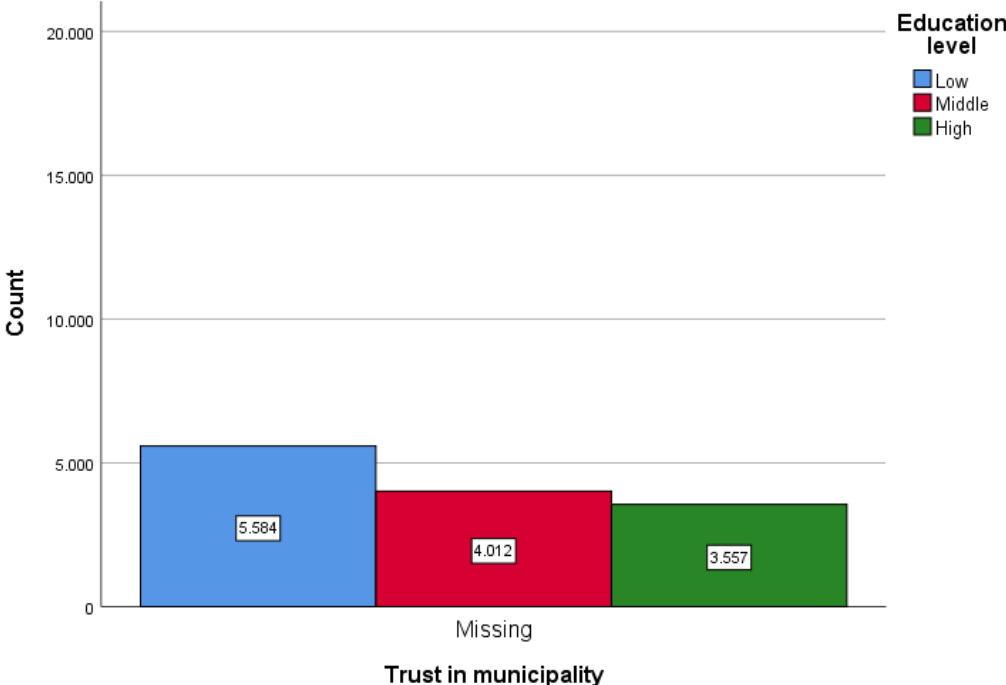
CHECKLIST ETHICAL AND PRIVACY ASPECTS OF RESEARCH

INSTRUCTION

This checklist should be completed for every research study that is conducted at the Department of Public Administration and Sociology (DPAS). This checklist should be completed *before* commencing with data collection or approaching participants. Students can complete this checklist with help of their supervisor.

This checklist is a mandatory part of the empirical master's thesis and has to be uploaded along with the research proposal.

The guideline for ethical aspects of research of the Dutch Sociological Association (NSV) can be found on their website (http://www.nsv-sociologie.nl/?page_id=17). If you have doubts about ethical or privacy aspects of your research study, discuss and resolve the matter with your EUR supervisor. If needed and if advised to do so by your supervisor, you can also consult Dr. Jennifer A. Holland, coordinator of the Sociology Master's Thesis program.

PART I: GENERAL INFORMATION

Project title:

The effects of education and the Great Recession on political trust in Rotterdam

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Start date and duration:

17-03-2021 – 30-06-2021

Is the research study conducted within DPAS   YES - ~~NO~~

If 'NO': at or for what institute or organization will the study be conducted?

(e.g. internship organization)

PART II: HUMAN SUBJECTS

1.   Does your research involve human participants.   YES - ~~NO~~

    If 'NO': skip to part V.

    If 'YES': does the study involve medical or physical research?   ~~YES~~ - NO

    Research that falls under the Medical Research Involving Human Subjects Act (WMO) must first be submitted to an accredited medical research ethics committee or the Central Committee on Research Involving Human Subjects (CCMO).

2.   Does your research involve field observations without manipulations

    that will not involve identification of participants.   ~~YES~~ - NO

    If 'YES': skip to part IV.

3.   Research involving completely anonymous data files (secondary
    data that has been anonymized by someone else).   YES - ~~NO~~

    If 'YES': skip to part IV.

PART III: PARTICIPANTS

1.   Will information about the nature of the study and about what
    participants can expect during the study be withheld from them?   YES - NO

2. Will any of the participants not be asked for verbal or written
    'informed consent,' whereby they agree to participate in the study?   YES - NO

3. Will information about the possibility to discontinue the participation
    at any time be withheld from participants?   YES - NO

4. Will the study involve actively deceiving the participants?   YES - NO
    Note: almost all research studies involve some kind of deception of participants. Try to
    think about what types of deception are ethical or non-ethical (e.g. purpose of the study
    is not told, coercion is exerted on participants, giving participants the feeling that they
    harm other people by making certain decisions, etc.).

5. Does the study involve the risk of causing psychological stress or
    negative emotions beyond those normally encountered by
    participants?   `   YES - NO

6. Will information be collected about special categories of data, as
    defined by the GDPR (e.g. racial or ethnic origin, political opinions,
    religious or philosophical beliefs, trade union membership, genetic
    data, biometric data for the purpose of uniquely identifying a person,
    data concerning mental or physical health, data concerning a person's
    sex life or sexual orientation)?   YES - NO

7. Will the study involve the participation of minors (<18 years old) or
    other groups that cannot give consent?   YES - NO

8. Is the health and/or safety of participants at risk during the study?   YES - NO

9. Can participants be identified by the study results or can the
    confidentiality of the participants' identity not be ensured?   YES - NO

10. Are there any other possible ethical issues with regard to this study?   YES - NO

If you have answered 'YES' to any of the previous questions, please indicate below why
this issue is unavoidable in this study.

_____
_____
_____
_____

What safeguards are taken to relieve possible adverse consequences of these issues (e.g., informing participants about the study afterwards, extra safety regulations, etc.).

_____
_____
_____
_____

Are there any unintended circumstances in the study that can cause harm or have negative (emotional) consequences to the participants? Indicate what possible circumstances this could be.

_____
_____
_____
_____

Please attach your informed consent form in Appendix I, if applicable.

Continue to part IV.

PART IV: SAMPLE

Where will you collect or obtain your data?

I have obtained my data via a shared OneDrive file, which I got access to from my supervisor, Gijs Custers.

Note: indicate for separate data sources.

What is the (anticipated) size of your sample?

10.000–15.000 respondents in every wave, with a total of eight waves. The complete sample in the dataset is 110.790 respondents.

Note: indicate for separate data sources.

What is the size of the population from which you will sample?

The population of Rotterdam, which is currently around 650.000 habitants.

Note: indicate for separate data sources.

Continue to part V.

Part V: Data storage and backup

Where and when will you store your data in the short term, after acquisition?

I stored the dataset on my personal laptop and on a personal protected USB-stick. After passing my thesis, I will delete this data from my laptop and USB.

Note: indicate for separate data sources, for instance for paper-and pencil test data, and for digital data files.

Who is responsible for the immediate day-to-day management, storage and backup of the data arising from your research?

I am responsible for the storage of the dataset, since no one else has access to this laptop.

How (frequently) will you back-up your research data for short-term data security?

I back-up my data every week, by copying the dataset to my personal USB-stick.

In case of collecting personal data how will you anonymize the data?

Does not apply to this research.

Note: It is advisable to keep directly identifying personal details separated from the rest of the data. Personal details are then replaced by a key/ code. Only the code is part of the database with data and the list of respondents/research subjects is kept separate.

PART VI: SIGNATURE

Please note that it is your responsibility to follow the ethical guidelines in the conduct of your study. This includes providing information to participants about the study and ensuring confidentiality in storage and use of personal data. Treat participants respectfully, be on time at appointments, call participants when they have signed up for your study and fulfil promises made to participants.

Furthermore, it is your responsibility that data are authentic, of high quality and properly stored. The principle is always that the supervisor (or strictly speaking the Erasmus University Rotterdam) remains owner of the data, and that the student should therefore hand over all data to the supervisor.

Hereby I declare that the study will be conducted in accordance with the ethical guidelines of the Department of Public Administration and Sociology at Erasmus University Rotterdam. I have answered the questions truthfully.
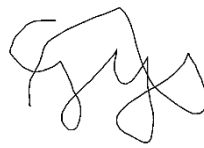
Name student:	Name (EUR) supervisor:
Rianne van der Meer	Gijs Custers

Date:	Date: 21-03-2021
17-03-2021	

1. Outliers

Figure 4: Boxplot of 'trust in municipality'.
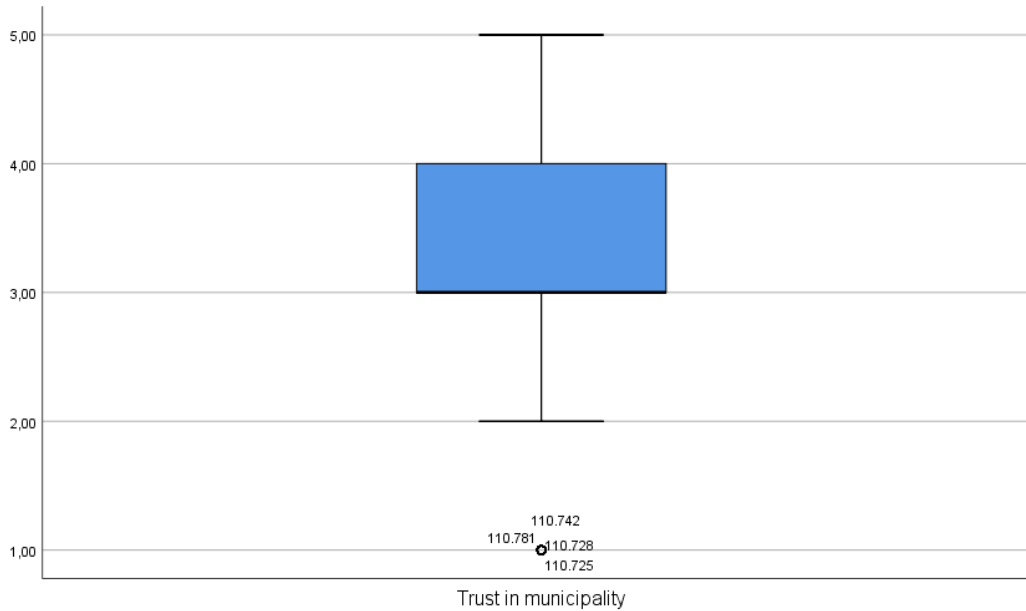
These outliers were the scores on 'strongly disagree', which are the respondents with low trust in the municipality. Since I did not want to lose these respondents who are discontent with the local government, these respondents were kept in the analysis.

**Figure 5: Boxplot of 'Education levels'.**
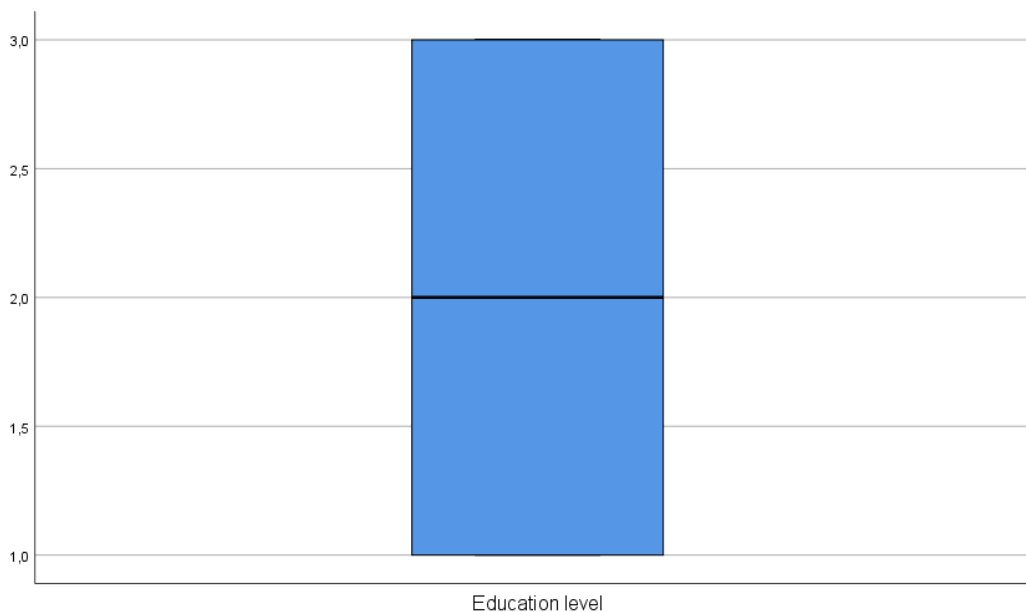
Figure 6: Boxplot of 'Gender'.
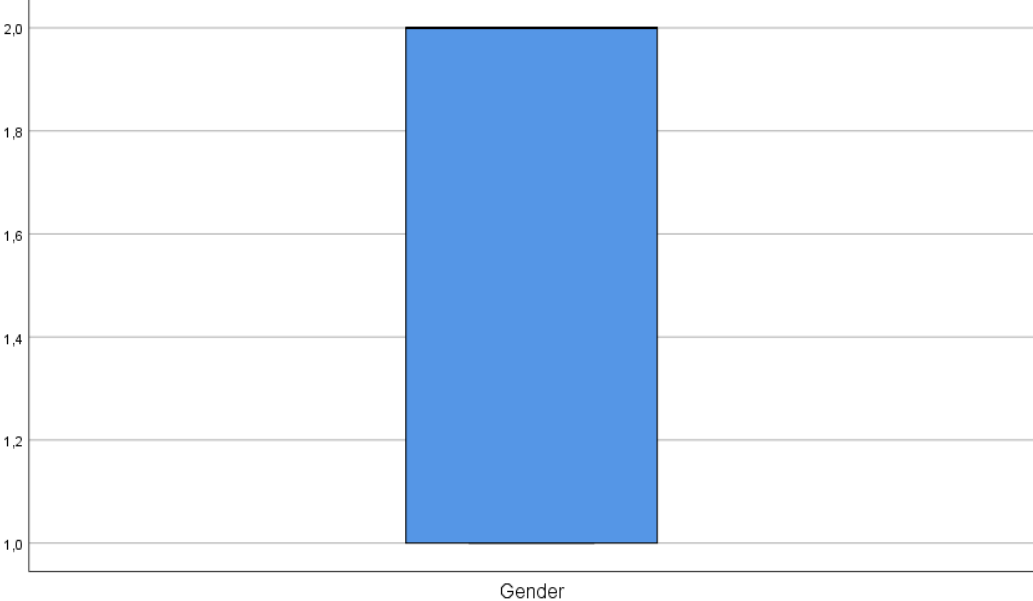
Figure 7: Boxplot of 'Age'.
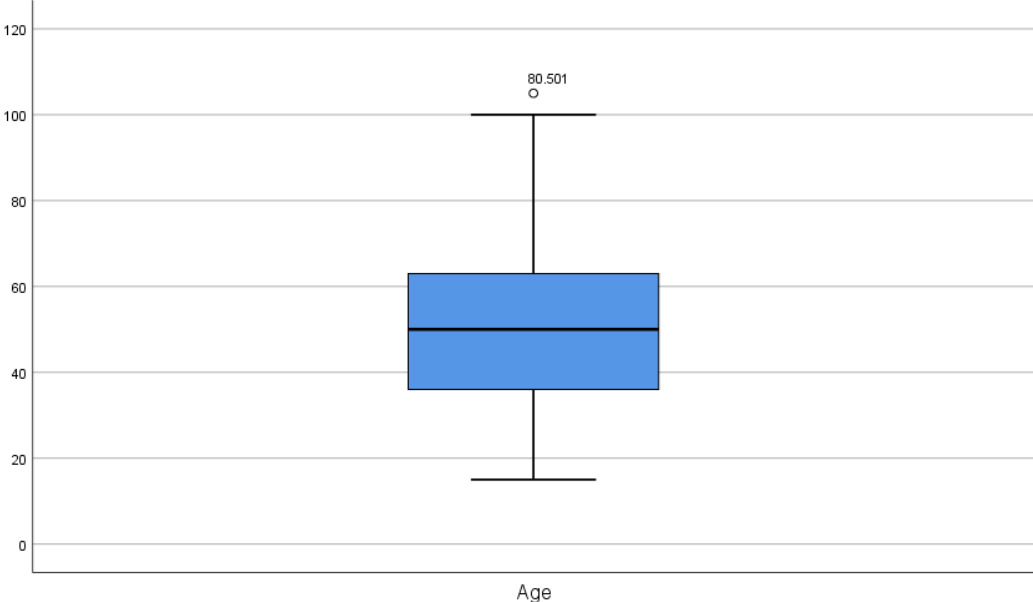
One respondent, who was 105 years old, was an outlier. Since this respondent is one in 86.777 in the total analysis, the likelihood of skewing the results was extremely small. In order to keep as many respondents in the analysis, this case was kept in the analysis.

Figure 8: Boxplot of 'Ethnicity'.
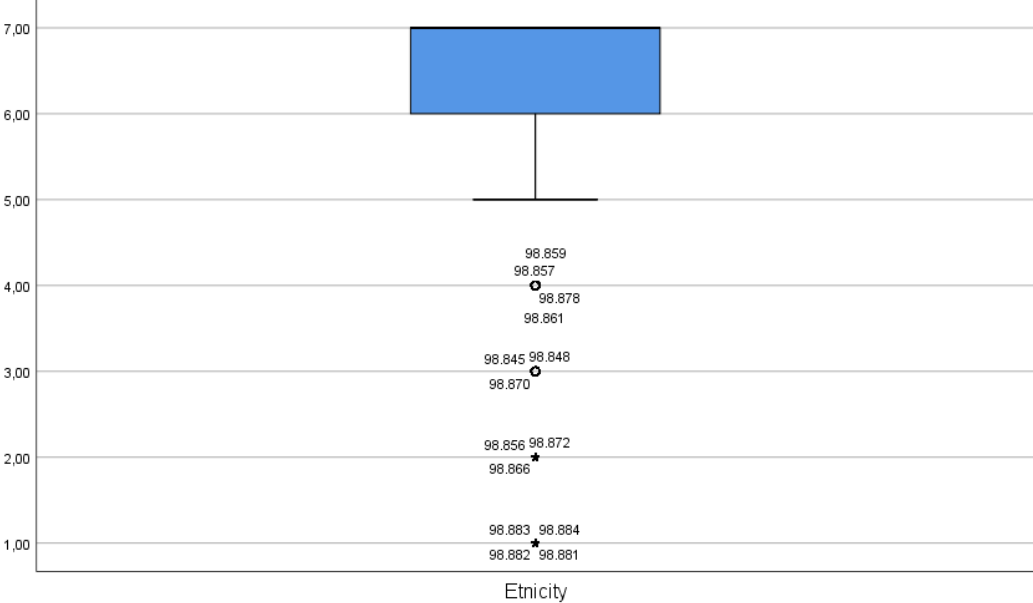
All scores except 7, 6 and 5 (Other, Dutch and Moroccan) were considered outliers in this boxplot. Since I included this variable to control for the other ethnicities, it was necessary to keep all of these respondents in the analysis.

Figure 9: Boxplot of 'Getting by financially'.
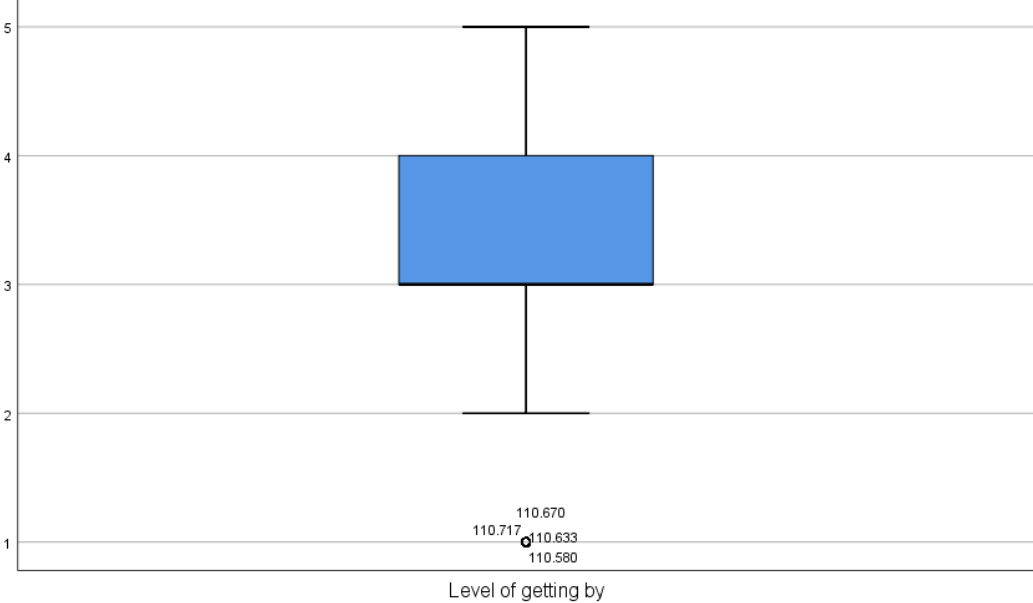
Respondents with a score of 1, which meant they had a hard time to get by financially, were considered a possible outlier. Since I did not want to exclude any of the answer possibilities from the analysis, these respondents were included in the analysis.

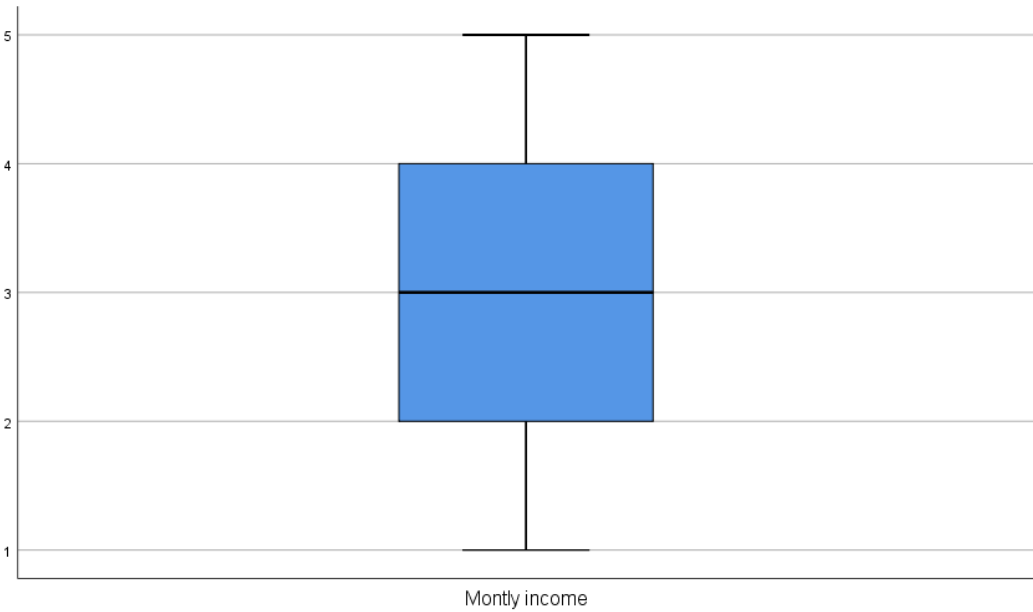**Figure 10: Boxplot of 'Monthly income'.**

Montly income

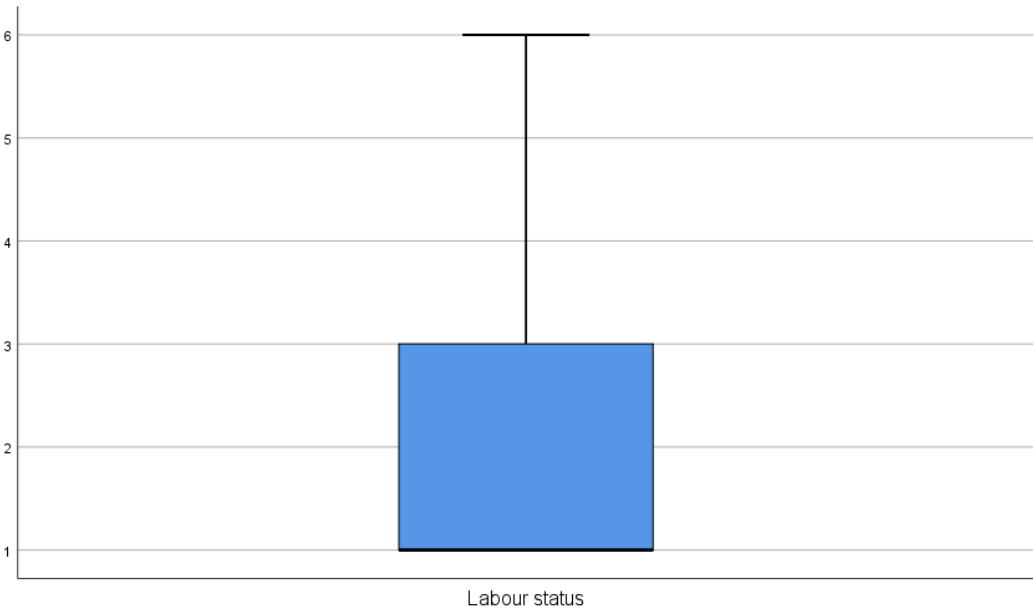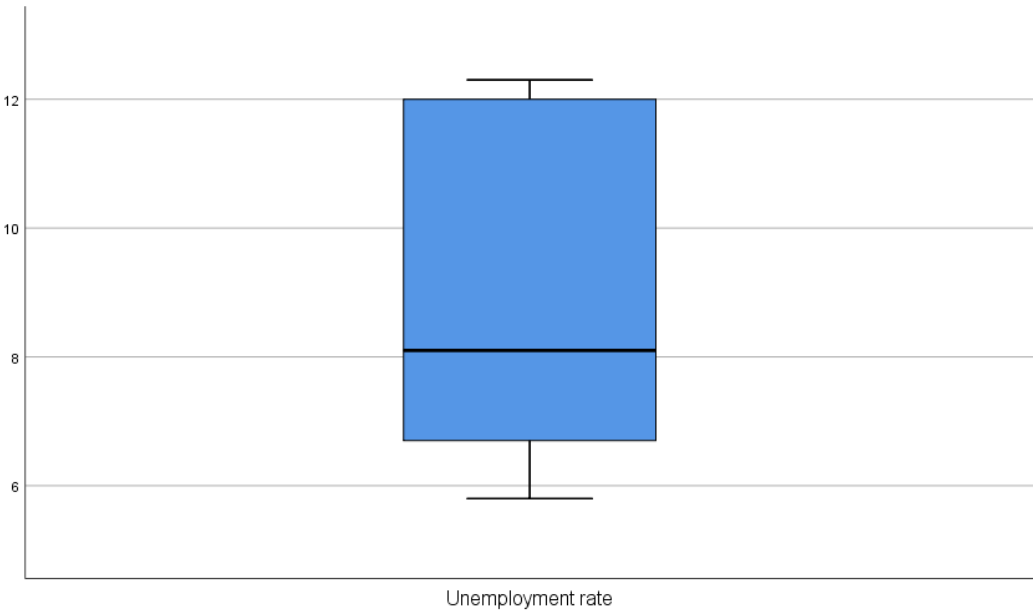**Figure 11: Boxplot of 'Labour status'.**
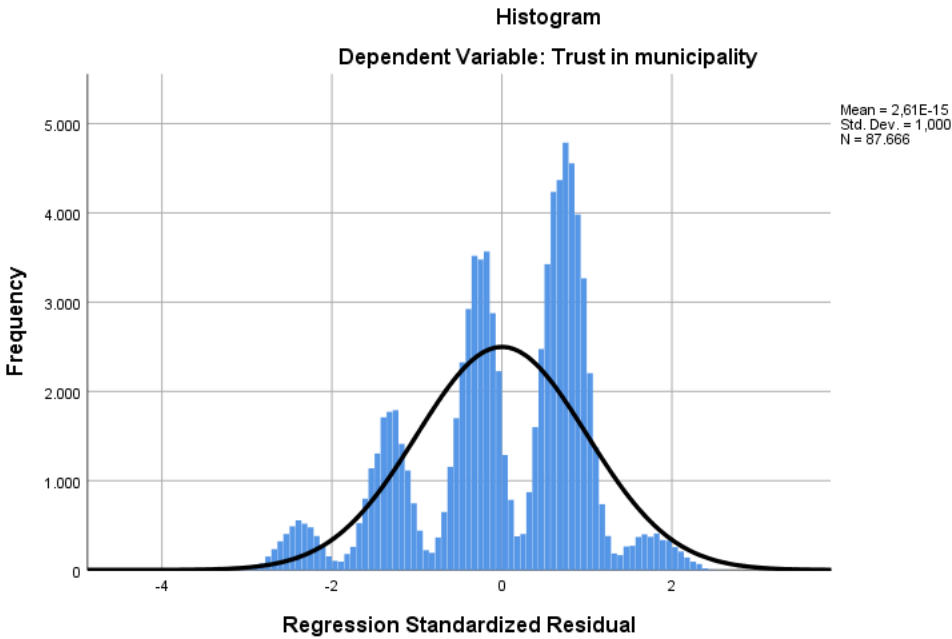

Labour status

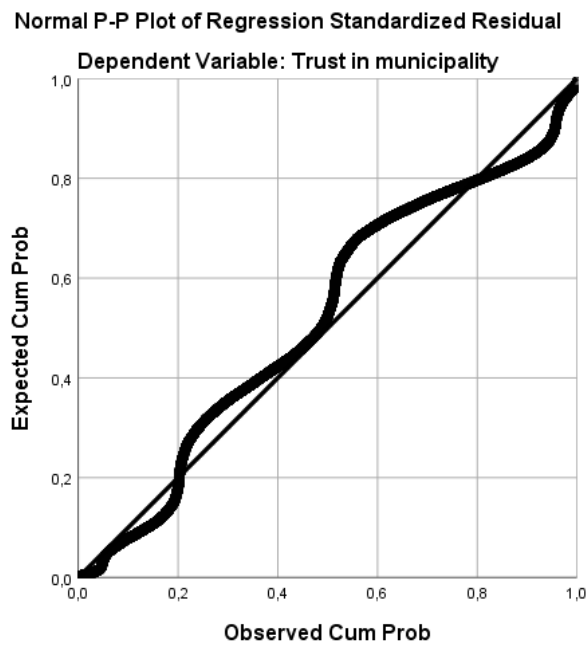**Figure 12: Boxplot of 'Unemployment rate'.**

2. Normal distribution

Figure 13: Histogram of the normal deviation of the 'trust in the municipality'.

3. Linearity

Figure 14: Linearity plot of 'trust in municipality'.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Trust in municipality

4. Homoscedasticity

Figure 15: Scatterplot of the standardized residuals of 'trust in municipality'.

Scatterplot
Dependent Variable: Trust in municipality
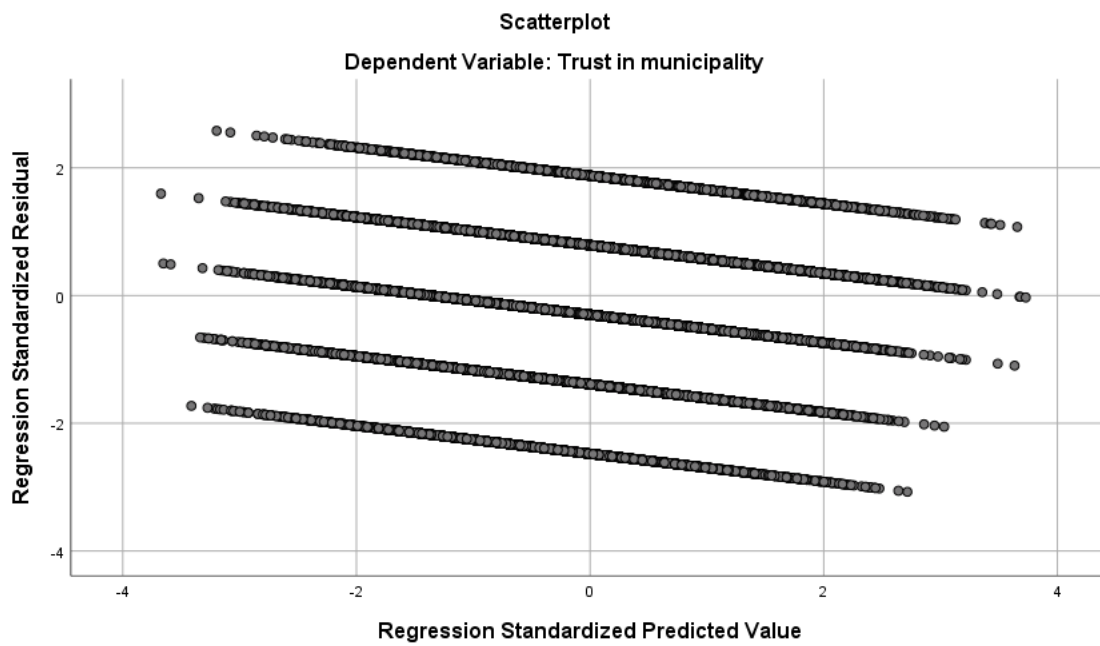
Table 3: Model 5 and model 6 of the multiple regression analysis with year as proxy for the economic crisis.

	Model 5	Model 6
	B (SE)	B (SE)
Constant	2.796 (.022)**	2.780 (.023)**
Education:		
Lower education (ref.)		
Middle education	-.068 (.008)**	-.027 (.022)
Higher education	.032 (.009)**	.041 (.009)**
Gender (male = ref.)	.018 (.006)**	.018 (.006)**
Age	-.001 (.000)**	-.001 (.000)**
Ethnicity		
Dutch (ref.)		
Surinamese	.096 (.012)**	.096 (.012)**
Antilleans	.174 (.020)**	.174 (.020)**
Cape Verdean	.265 (.022)**	.265 (.022)**
Turkish	.075 (.014)**	.075 (.014)**
Moroccan	.214 (.018)**	.213 (.018)**
Other	.154 (.009)**	.154 (.009)**
Getting by financially	.137 (.004)**	.137 (.004)**
Monthly income		
Minimum (ref.)		
Min. to modal	-.065 (.010)**	-.065 (.011)**
Modal to double modal	-.122 (.011)**	-.122 (.011)**
More than double modal	-.079 (.013)**	-.079 (.013)**
Other	-.164 (.011)**	-.163 (.011)**
Labour status		
Employed (ref.)		
Unemployed	.041 (.012)**	.042 (.012)**
Retired	.149 (.012)**	.149 (.012)**
Homecare	.103 (.013)**	.102 (.013)**
Student	.203 (.016)**	.202 (.016)**
Other	.031 (.023)	.031 (.023)
Year		
2008 (ref.)		
2009	.046 (.013)**	.091 (.019)**
2010	-.088 (.013)**	-.079 (.016)**
2011	-.143 (.013)**	-.130 (.015)**
2013	.011 (.013)	.021 (.015)*
2015	.124 (.013)**	.132 (.015)**
2017	.255 (.013)**	.263 (.015)**
2019	.214 (.013)**	.229 (.015)**
Education x year[7]		
Middle educated x 2008 (ref.)		
Middle educated x 09		-.063 (.032)*
Middle educated x 10		-.038 (.030)
Middle educated x 11		-.051 (.029)
Middle educated x 13		-.040 (.028)
Middle educated x 15		-.035 (.028)
Middle educated x 17		-.037 (.027)
Middle educated x 19		-.060 (.028)*
Higher educated x 19		-.080 (.023)**
R²	.051	.051

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[7] The interaction variables of the higher educated in 2008-2017 were excluded from the regression.