Erasmus School of Economics[1]

Bachelor Thesis-Economics of Markets and Organizations

The encouragement and benefits of a diverse workforce.

An empirical study on labor market discrimination in the Netherlands.

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Abstract

The existing literature on labor market discrimination reports that awareness campaigns help to reduce this fundamental problem. Moreover, it is argued that a diverse workplace results in higher financial returns, more innovations and happier employees. This thesis elaborates on this field by analyzing the 2015 Dutch "Zet een Streep door Discriminatie" anti-discrimination campaign with a difference-in-difference model. With this model, Belgian and Dutch data (provided respectively by CBS (2019) and Arvastat (2018)) on minority unemployment rates will be compared. Furthermore, this study looks at the potential benefits of a more diverse organization for job satisfaction, by estimating a fixed effects model. This has been done by merging data from CBS (2019) and LISS (2018). The results of this thesis indicate that the Dutch anti-discrimination campaign did significantly reduce labor market discrimination. However, this paper did not find evidence for the benefits of a more diverse job sector. A more uniform job sector insignificantly reduces job satisfaction scores.

Keywords: labor market discrimination, workplace diversity, awareness campaign, female and foreign-born unemployment rate, job satisfaction & employee satisfaction.

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[1] The views stated in this thesis are those of the author and not necessarily those of Erasmus School of Economics or Erasmus University Rotterdam.

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1. Introduction.

"Everyone has the right to work, to free choice of employment, to just and favorable conditions of work and to protection against unemployment." (United Nations, 2019). Yet, labor market discrimination is still a problem within Europe. The Centre for Social Investigation (2019) found that within The United Kingdom ethnic minorities have to send 60% more job applications to receive as many reactions as British-born individuals, holding skill level constant. The Glassdoor (2019) Gender Pay Gap Report indicated that in Germany female employees earn 0.94 cents for every euro that male employees earn, even when correcting for several job characteristics (working hours, education level and job industry). Lastly, 29% of 25500 migrants across the European Union, who looked for a job and 22% who worked for at least five years felt discriminated at some point (European Union Agency for Fundamental Rights, 2017).

Labor market discrimination is also a societal problem in the Netherlands. De Volkskrant (2018) for example announced that 47% of Dutch employment agencies discriminate on ethnic origin. Furthermore, the Central Bureau of Statistics (CBS) in the Netherlands (2018) illustrated that the Dutch wage difference between female and male workers (also corrected for working hours, education level and job industry) is approximately 6% in favor of men. In order to provide more equal opportunities for minorities, the Dutch government launched the *"Zet een Streep door Discriminatie"* (ZSD) campaign in 2015. With several articles, commercials and active workshops, one of the main purposes of this campaign was to emphasize to employers the importance of diversity in their organization (Rijksoverheid, 2019). While CBS (2019) illustrated that, after the campaign, the unemployment gap between Dutch native employees and non-native employees reduced, it is still unclear whether this program significantly reduced labor market discrimination. This is because other relevant economic trends (a rising GDP) may have also influenced the decline of this unemployment gap. Trouw (2016) also reported that this campaign did not reduce the discrimination via social media, because only the behavior among groups was influenced. Since individuals are more engaged to share content with people who hold similar opinions, this campaign would only reach proponents of anti-discrimination.

Therefore, managers who may not care about diversity, are less likely to see these commercials.

Other reasons why the ZSD campaign may not give significant results are due to certain biases that managers may have on employee diversity within the organization (Giuliano, Levine & Leonard, 2011). For instance, managers could believe that diversity diminishes organizational efficiency because of interpersonal conflicts between employees from different cultures. Intuitively, hiring a female worker in an organization where mostly men work, could give a more negative experience for her because of certain differences between men and women (Forbes, 2018). Hence, employers focus more on a uniform workforce to ensure that employees and customers remain comfortable with each other (De Meuse, Hostager & O'Neill, 2007). Finally, employers may also view workplace diversity as an optional luxury rather than a necessity (Lewis & Geroy, 2000).

Although managers may be skeptical towards the benefits of workplace diversity, several studies do indicate that diversity among employees is beneficial for organizations. McKinsey & Company (2015) indicates that ethnic diversity increases the chance of having financial returns above the industrial median by 35%. Nathan and Lee (2013) found that diversified British organizations obtain a higher level of innovations because of a 'Diversity Bonus'. Finally, a survey among employers of a Dutch bank (Rabobank) reveals that a diverse organization is also sometimes used to attract consumers from multiple ethnicities (Subeliani & Tsogas, 2005).

Even if a diverse workplace may improve the returns of an organization, it is still unclear whether a campaign may improve the employment of minorities, due to the prejudices of employers. This thesis will study whether the Dutch ZSD anti-discrimination campaign improved the diversity levels among organizations, by actively communicating the benefits and importance of a diverse workplace. Moreover, this study will analyze the effect of a diverse workplace on employees by focusing on job satisfaction and employee satisfaction. This paper contributes to the earlier literature on the impact of a governmental campaign by giving special attention towards the 2015 Dutch ZSD campaign. Furthermore, regarding the effects of diversity on industrial returns, previous literature (including the three papers cited above)

mostly relied on correlations from cross-sectional datasets. This thesis elaborates on this work by using a more recent Dutch panel dataset. The main research question for this study is listed as followed:

Can an anti-discrimination campaign reduce labor market discrimination and does an increase in workplace diversity improve the organizational welfare in the Netherlands?

The following four sub-questions will support this main research question:

1.   What is labor market discrimination and why does it exist?
2.   What are the trends of labor market discrimination in the Netherlands and Europe?
3.   Which policies can limit labor market discrimination and how effective are they?
4.   What is a diverse workplace and how can this improve organizational welfare?

The next section of this paper gives a literature review where the sub-questions will be answered, several hypotheses are stated and important variables are conceptualized and operationalized. Followed by that, the analysis of this study will be twofold: section three and four will discuss the data, methodology and results with regards to respectively the encouragement and the benefits of diversity. Finally, section five will discuss the most important conclusions, limitations and further implementations for research.

2. Theoretical framework.

This section will answer the stated sub-questions, by combining theories and findings from existing literature. Moreover, several hypotheses will be introduced, which will be analyzed during the empirical part of this study. Subsections 2.1 to 2.4 will respectively answer these four sub-questions. Subsection 2.5 will introduce and operationalize two hypotheses.

2.1. Labor market discrimination and its existence.

The Equal Opportunities Commission (2010) defines discrimination as the process of treating a person unfairly because of their personality or because he/she possesses certain characteristics. One example of such unfair treatment for workers is the unequal provision of wages based on gender. This act distinguishes between nine different "protected characteristics", ranging from age, gender and race to religion,

sexual orientation and pregnancy. Moreover, discrimination could either be categorized into direct or indirect discrimination. While the former focuses on the unfair treatment of individuals with certain protected characteristics (gender wage gap), the latter concentrates on policies or rules that limit individuals with these characteristics. For example, when a company implements a rule that all employers have to work on Sundays, Christian workers may not be able to work for this company (EOC, 2019).

Most of the previous literature model labor market discrimination by means of wage differences or as a discrimination taste. In the model of Cain (1986), individual wages or the probability of getting hired (Y) are influenced by someone's characteristics (X) and whether this person is a part of a majority group (Z=1). Cain (1986) illustrates the following simplified model:

$$Y = \beta * X + \alpha * Z + \epsilon.$$

If one finds α to be positive, then this is considered as an indication that employers are initiating discriminatory practices. More precisely, if one can measure all confounding variables, labor market discrimination (D) can be measured with the following formula:

$$D = (\hat{Y}|X, Z = 1) - (\hat{Y}|X, Z = 0),$$

where $\hat{Y}$ is the predicted wage level conditional on personal characteristics.

Becker (1971, as cited in Altonji and Blank, 1999) models labor market discrimination as employers who are prejudiced against minorities. In his model employers maximize the following utility function (U):

$$U = pF(N_a + N_b) - \omega_a N_a - \omega_b N_b - dN_b,$$

where an employer's utility (U) is equal to the price (p) times the production function ($F(N_a + N_b)$) minus the total wage cost of majority and minority population N_a and N_b ($\omega_a N_a$ and $\omega_b N_b$). Lastly, employers' utility is decreasing with the 'coefficient for discrimination' (d). Once $d > 0$, employers are prejudiced and feel that they need to pay $\omega_b + d$ to hire such a minority. So this model illustrates that, in a perfect competitive market, some managers may find it costlier to hire someone from a minority group.

Underrepresentation of minorities in an organization could also exist when employers do not have a taste for discrimination. Morgan and Vardy (2009) provide a theoretical model where selective employers (hiring candidates only when the employer finds the candidate suitable post-interview), with no taste for discrimination, are more likely to hire majorities rather than minorities. Intuitively, the model indicates that, during job interviews, foreign applicants provide more "noisy signals" about their capabilities because of potential communicational problems. This makes a manager more uncertain if this foreign candidate can succeed in the job. Morgan and Vardy (2009) also argue that the employer's degree of selectiveness is positively related to the necessary skill level and negatively towards the business cycle. When the economy is facing high demand, the opportunity cost of an unfilled position increases, which makes managers less selective.

Why do managers have an inherent taste to discriminate against minorities? Stockdale and Crosby (2004) provide five myths about the adverse effects of a diverse workplace that employers belief. Their main belief (as already discussed in the introduction) is that diversity contradicts to organizational efficiency. Phelps (1972) adds on this by implying that employers rely on statistical experience when hiring minorities. For example, executives may believe that minorities grow up at disadvantaged regions because of racial hostility. A final reason why managers do not hire minorities relates from psychology: the confirmation bias and the availability heuristic. The confirmation bias, a tendency to focus more on evidence that supports someone's prior beliefs, describes that employers neglect studies that support a diverse organization. The availability heuristic, the human impulse that the probability of some event is positively related to the easiness that this event comes to mind, informs that managers dislike to hire minorities because of earlier negative events with other diverse organizations (Angner, 2016). To summarize, there are multiple reasons, ranging from psychological biases to higher degrees of selectiveness, for the unfair treatment of individuals from a minority population.

2.2. The trends of labor market discrimination in the Netherlands and Europe.

As already stated in the introduction, labor market discrimination is still a societal problem in the Netherlands and Europe. Nevertheless, the following figures do

illustrate a trend towards more equality for workers. Figure 1, 2 and 3 illustrate respectively the uncorrected gender wage gap, female employment rate and foreign-born unemployment rate for several European countries (Eurostat, 2018; OECD, 2017). These three figures show that the Netherlands (indicated by the blue diamond) is becoming a more equal society due to a downward trend in the uncorrected gender wage gap and the foreign-born unemployment rate and an upward trend in the female employment rate. Moreover, figure 2 shows that the Netherlands is relatively one of the countries with the highest degree in the female employment rate. Still, the trends of these figures can only partly be explained by the potential effects of awareness campaigns. Other economic trends in Europe (a rising real GDP (European Commission, 2019), the increasing number of migrating refugees (Migration Data Portal, 2019) and the increase of female part-time workers (Financial times, 2018)) also influence these trends. To summarize, even though several news reports indicated that labor market discrimination is an important problem in the Netherlands, these statistics may establish that the Netherlands is already achieving a more equal society.
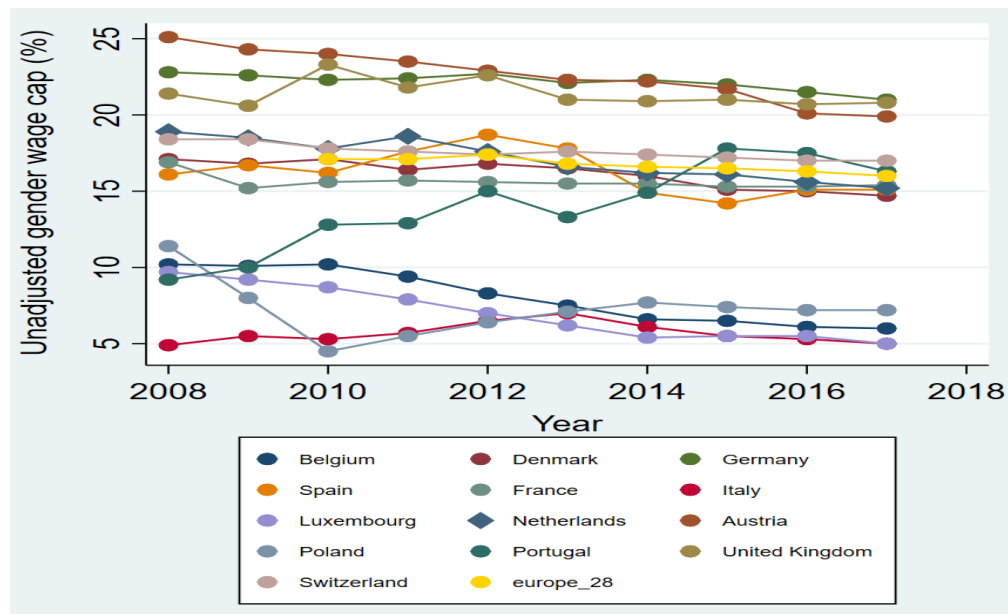
Figure 1. Evolution of the European unadjusted gender wage gap as a percentage of the wage difference of men and women to the average wage of men. Retrieved from Eurostat (2018).
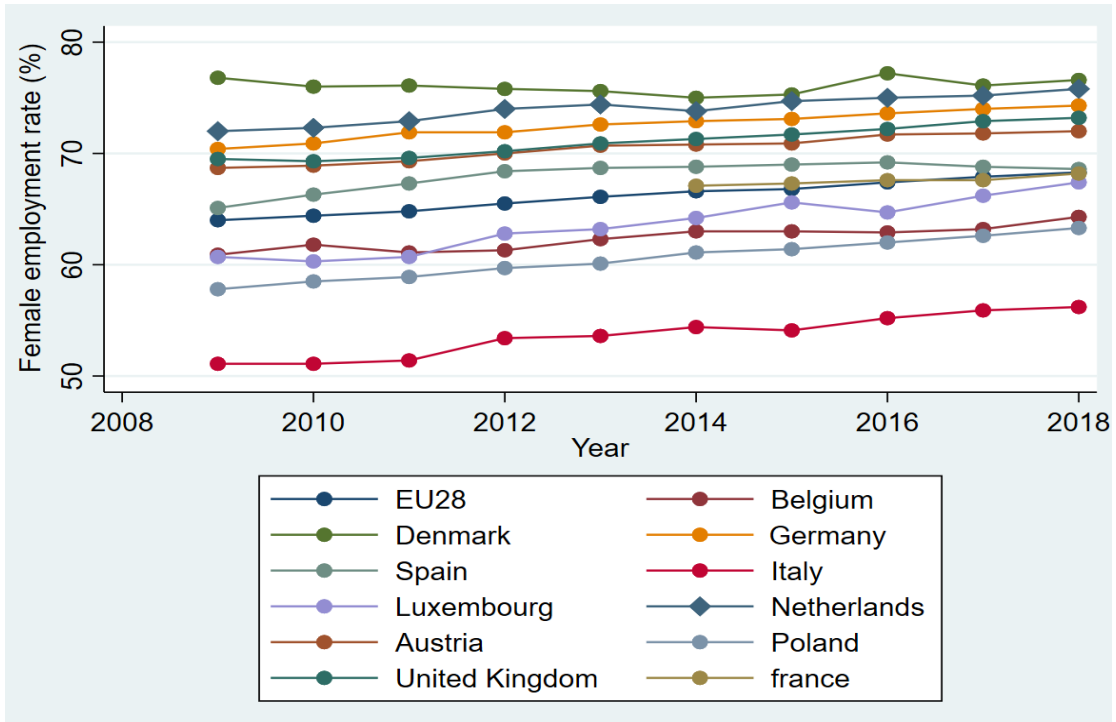
Figure 2. Trend of the female employment rate as a percentage of the total employment rate for several European countries. Retrieved from Eurostat (2018).
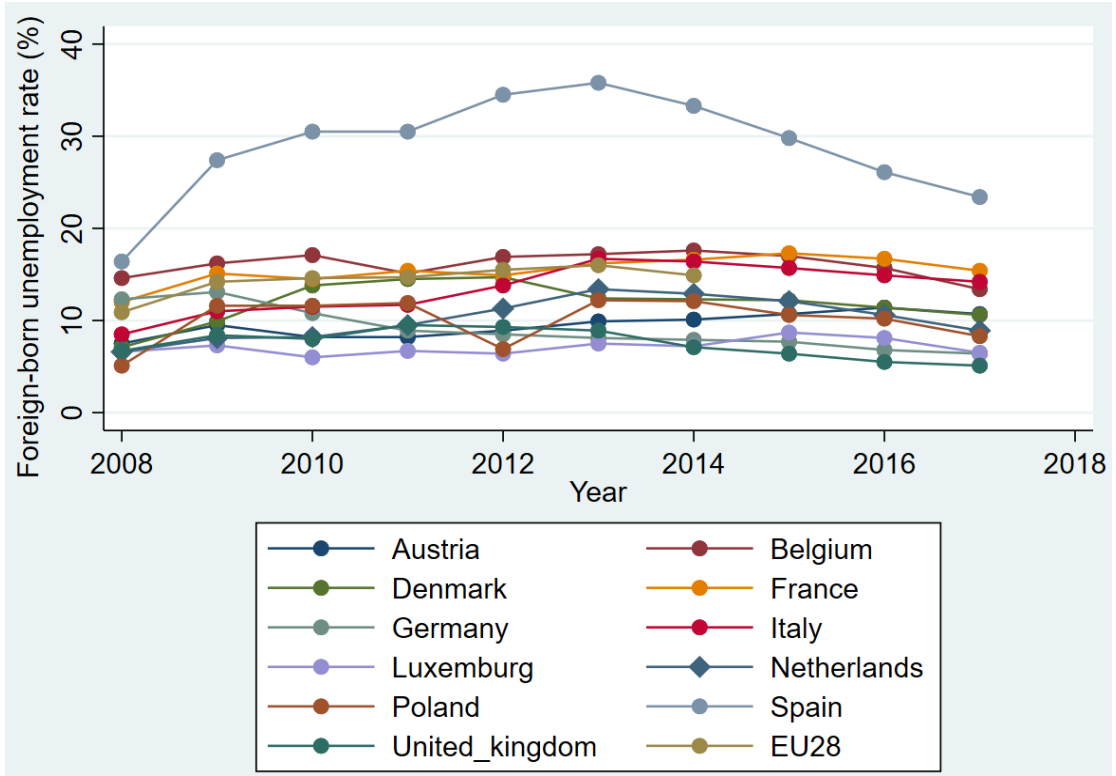
Figure 3. Evolution of the total European foreign-born unemployment rate as the share of unemployed foreigners in the foreign-born labor force. Retrieved from OECD (2017).

2.3. Methods to limit labor market discrimination.

This subsection will discuss several methods to limit labor market discrimination: diversity training programs, anonymous job applications, a quota and an anti-discrimination campaign.

2.3.1. Diversity training program.

The most common tactic among businesses to prevent discriminatory behavior is with a mandatory diversity training (The Washington Post, 2016). Such a training can limit the prejudice of managers and can promote a positive work climate by emphasizing the benefits of a diverse organization. Indeed, Combs and Luthans (2007) found that a diversity training contributes to someone's diversity self-efficacy (DSE), "the degree that one can find the necessary motivation to pursue diversity in the workplace", one year after the training. This contribution may come from the idea that after a diversity training employers view that the company oblige them to change (Linnehan, Chrobot-mason & Konrad, 2006). In return, these increased intentions stimulated a more diversified organization. Lastly, Roberson, Kulik and Pepper (2009) concluded that after a diversity training, employers are more likely to focus on transfer strategies (i.e. assessing opportunities to use trained knowledge in practice). They explained this effect with "cognitive dissonance", which describes that people tend to change their actions once their beliefs are contrary to their behaviors. Intuitively, biased managers tend to reduce their prejudices towards minorities when they are assigned to write down how they can improve diversity.

Yet, other studies indicate that diversity trainings do not work. Dobbin and Kalev (2016) reported that the positive effects of such a training only last for several days. They argue that these programs focus on controlling the behavior of managers, which will increase their bias. Moreover, Managers may have shown resistance towards these programs since they were mandatory. Nevertheless, Chang, Milkman, Gromet, Rebele, Massey, Duckworth & Grant (2019) found mixed effects of a voluntary online diversity training. By using a field experiment, they argued that such a training would not change the behavior of managers towards minority groups. Thus, the impact of a diversity training is influenced by its attributes. Engaging managers to contact minorities is more effective than controlling behavior (Dobbin & Kalev, 2016).

2.3.2. Anonymous job applications.

Removing key personal characteristics from job applications could also provide more equal opportunities for candidates. This idea is mostly analyzed by means of a correspondence test, where researchers send fictional applications to firms changing only the names and origins of applicants. By using such a test, Kaas and Manger (2012) found that managers discriminate on basis of race, since someone with a native sounding name receives 24% more interview offers than a similar person with a foreign name. Yet, these tests come with the limitation that the researchers may have sent these applications to jobs that minorities find irrelevant, due to skill requirements (Åslund & Skans, 2012).

Similar field experiments argue that the implementation of an Anonymous Application Procedure (AAP) will increase the hiring chance of minority candidates. Bøg and Kranendonk (2011) found that an AAP will reduce the call-back rate difference between minority and majority candidates in the Netherlands. Moreover, results in Sweden established that an AAP increases the interview and hiring chance of women and only the interview chance of ethical minority candidates (Åslund & Skans, 2012). Nevertheless, Behaghel, Crépon and Barbanchon (2011) concluded that anonymous resumes decreased the interview chance of foreign applicants in France. A reason for this comes from the idea that firms cannot simultaneously hire the most qualified worker and increase diversity. This is because foreigners may not possess the necessary skill level of this job[2]. Also, as Åslund and Skans (2012) argued, an AAP might only postpone discrimination to later stages of the hiring process. To conclude, anonymous job applications may help to increase diversity if skill-based differences between social groups are lower (Krause, Rinne & Zimmermann, 2012).

2.3.3. A quota for a fixed number of minority workers.

Another tactic for the government to increase workplace diversity is to impose an ethnic or gender quota on organizations. Several European member states currently impose a 30 to 40 percent quota on female board members (The Economist, 2018).

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[2] This relates to Morgan and Vardy (2009), where selective non-discriminating employers do not hire foreigners with lower skills.

While these methods may give positive results at first, several problems might arise with this policy. For instance, the minorities hired because of this policy might feel useless. Another reason is that, similar to diversity trainings, managers will not be intrinsically motivated to create a more diverse firm once they are forced to do so (Dobbin, Schrage & Kalev, 2015). Finally, a sufficient level of governmental monitoring is also necessary for this method. The Economist (2018) for example reported that French companies circumvented through this policy by reducing the total number of board members to increase the percentage of female members.

Nevertheless, the Economist (2018) does indicate that the total number of female board members has significantly increased after a quote. Hence, a quota could positively contribute to the equal opportunities of minorities if a sufficient level of monitoring is implemented.

2.3.4. An anti-discrimination campaign.

An anti-discrimination program can raise the awareness towards an equal treatment of racial minorities. In return, such a campaign can increase the well-being of these minorities. For example, survey results from mental health care users in New Zealand indicated that the "Like Minds, Like Mine[3]" campaign helped in reducing discrimination against citizens with a mental illness. These commercials also supported mental health care users to feel more acceptable in society (Vaughan & Hansen, 2004; Thornicroft, Wyllie, Thornicroft, Mehta, 2014). Moreover, The Australian Human Rights Commission (2015) presented beneficial results of their 2012 "Racism. It Stops with Me" campaign. After a series of commercials, newsletters, surveys and trainings, this organization reported that Australian firms were more engaged to talk about discrimination, to initiate anti-racism policies and to start an event to promote diversity.

There are three main reasons why an active awareness campaign can engage firms to provide more equal opportunities for minorities. The first reason comes from

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[3] This anti-stigma campaign, started in 1997, was funded by the New Zealand government to reduce discrimination on mental health care users (Likeminds, 2019).

the earlier discussed theory of cognitive dissonance (see section 2.3.1.). The second reason comes from the Information Deficit model. Intuitively, this model explains that business owners are unaware of the potential benefits of a diverse firm, due to the information asymmetries between scientific experts and managers. By using a campaign, scientist can communicate why a diverse firm brings higher returns. Thus, active awareness campaigns can overcome a knowledge deficit that employers may have regarding diversity (Christiano & Neimand, 2017). Finally, this public campaign may also increase the corporate social responsibility of organizations. Costumers will become more aware that labor market discrimination is unethical. In return, shareholders will induce their managers to change their behavior in order to prevent financial losses (Benabou & Tirole, 2010).

While these theories and reports indicate support towards anti-discrimination campaigns, several other studies are skeptical on these positive effects. Firstly, communicating information to change behavior may be necessary, but not sufficient (Marteau, Sowden & Armstrong, 2002). Raising only awareness to promote equality may not be enough to change the behavior of employers. Moreover, these campaigns can attract the wrong audience (as already stated in Trouw (2016)). Results from an American seafood awareness campaign indicated that only members of an environmental organization reduced their seafood consumption (Jacquet & Pauly, 2007). Finally, it is also unclear whether such a campaign can have beneficial long-term effects, due to other external events. While the 2006 Al Gore movie helped to raise awareness of climate change in the short-term, the 2010/2011 cold winters in Europe created skepticism about climate change (Climate Adapt, 2015). When, after an anti-discrimination campaign, firms hear about a disaster where minorities are involved, employers will be less engaged to hire these minorities.

To summarize all the discussed methods, policies to reduce labor market discrimination are likely to get the best results once employers are actively engaged to hire minorities. As with a diversity training, passively sharing knowledge may not bring the sufficient level of behavioral change that is demanded. Furthermore, other methods may not be effective because of circumvention strategies and increased selectiveness of employers. Overall, these theories and reports conclude that actively

increasing the contact between employers and minority employees is the most effective way to reduce discrimination in the labor market.

2.4. Defining organizational diversity and its benefits.

There are multiple ways to define diversity. Etsy, Griffin and Hiersch (1995, as cited in Green, López, Wysocki and Kepner, 2002) define this concept as "the acknowledging, understanding, accepting, valuing and celebrating differences among people with respect to age, class, ethnicity, gender, physical and mental ability, race, sexual orientation, spiritual practice and public assistance status" (p.1). George and Jones (1996, as cited in Sutanto, 2010) define diversity as differences resulted from age, gender, race, religion, sexual orientation and socioeconomic background. This definition exemplifies that employees with similar characteristics are more likely to have similar responses to work situations.

The definition of George and Jones (1996) also highlights the increasing importance of diversity management. Because of globalization and immigration, differences among cultures will increase, which makes diversity management more relevant. Moreover (as stated in the introduction), effectively stimulating diversity will give a competitive advantage because of increased productivity, fewer lawsuits, increased marketing abilities, more innovation and higher employee well-being (EWB) (Sutanto, 2010). To elaborate on this, Stempfle, Hübner and Badke-Schaub (2001) present a theoretical model of task assignment within an organization. They argue that a functional distribution of task roles is influenced by the principle of competence (job requirements may not exceed the individual skill level of employees) and the principle of preference (as many group members should prefer their assigned task). Not adequately following these principles can result in more negative job experiences for employees and lower EWB due to higher levels of stress. This model indicates that a more diversified firm may decrease the stress level of employees. If a company becomes more diverse, there are more differences between employees (both in individual abilities and preferences) (George & Jones, 1996) and because of that, employers are more able to assign jobs effectively. Therefore, group members among a diverse organization are more likely to work on the task they prefer and where they can succeed in.

2.5. Hypothesis and operationalization.

2.5.1. Hypothesis 1, encouraging diversity.

In section 2.3.4, I emphasized that an anti-discrimination campaign may work if employers are actively engaged to reduce labor market discrimination. The 2015 Dutch ZSD campaign not only provided more awareness towards the importance of equal opportunities. It also encouraged municipalities to support workshops for HR managers where they can actively reduce their bias. Moreover, this campaign also launched a website where employees could report discrimination, which in return can inform governments about the severity of this problem (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2018; Rijksoverheid, 2019). Because of the positive results of earlier active campaigns (Vaughan and Hansen, 2004; Thornicroft et al., 2014; The Australian Human Rights Commission, 2015), the following hypothesis can be stated.

Hypothesis 1: The Dutch ZSD campaign will encourage managers to hire more minorities, which will reduce overall labor market discrimination in the Netherlands.

To measure the effect of an anti-trust campaign on labor market discrimination, this study will compare the evolution of the total unemployment rates of foreigners and women between the provinces of two countries before and after this intervention. These unemployment rates are a useful approximation for discrimination, because of the likelihood that these individuals would feel discriminated once they are not applied for a certain position. Moreover, other Dutch statistical offices (see for instance CBS (2019) or OIS (2016)) also use these approximations for labor market discrimination.

2.5.2. Hypothesis 2, the benefits of diversity.

From the model of Stempfle et al. (2001) it can be concluded that a more diverse organization will improve task assignment among group members. In return, individual stress levels of employees will be lower, which will benefit the organizational welfare. Moreover, the studies listed in section 2.4 and the introduction pointed out that a diverse organization will give higher profits, better contacts and

more marketing strategies (Sutanto, 2010). Since the previous literature generally supports diverse organizations, this second hypothesis can be illustrated as followed:

Hypothesis 2: In the Netherlands, increasing the rate of diversity in a job sector will be welfare improving for the overall organizational welfare within that sector.

Organizational welfare will be measured by analyzing the overall job satisfaction and employee satisfaction of members within an organization. These approximations will be used, because of the earlier discussed intuition of Stempfle et al. (2001). More diversified firms are able to lower stress levels of employees, which will stimulate their overall job satisfaction. To measure the rate of diversity in a given job sector, a similar approach as within the field of competition policy will be used: The Herfindahl-Hirschman Index (HHI). This index is used to measure the degree of competition for a given market, by taking the sum of all the squared market shares of all relevant firms within a given product market and geographical location (Investopedia, 2019). Similar to this index, the rate of diversity for a given sector can be calculated with the following formula:

$$RU_j = \sum_{i=1}^{N} \sum_{s=1}^{2} E_{i,s}^2.$$

In this formula, $E_{i,s}^2$ stands for the proportion of employed individuals from culture i and sex s and N presents the total number of cultures for a given job sector. Finally, RU_j stands for the Rate of Uniformity for job sector j and is the opposite of the diversity rate. As with the HHI, there are two main advantages of using this particular method. Firstly, a higher number of cultures will result in a lower level of uniformity. This is beneficial, because this method would allow to add multiple cultures and sexes into the analysis. Secondly, this method also takes the employment distribution of different cultures and sexes into account. A more asymmetric distribution of minority employment will result in a higher level of uniformity. Therefore, by using this method it is expected that there is negative relationship between the Rate of Uniformity and Employee Well-Being (EWB).

3. Data and methodology.

This study will use a national time-series dataset to test the first hypothesis. The second hypothesis will be analyzed by using a Dutch panel dataset. In the following

sections, the sources, selection procedures and descriptive statistics for both datasets will be discussed. Section 3.4 will discuss the methodology of this analysis.

3.2. National time-series data.

3.2.1. Data sources and selection procedure.

To analyze the impact of the 2015 Dutch ZSD campaign, unemployment data from a valid control group has to be compared with unemployment data from the Netherlands. Therefore, this dataset contains information about the unemployment rate of foreigners and females in four southern provinces of the Netherlands (Noord Brabant, Zeeland, Zuid-Holland & Limburg) and five Dutch-speaking provinces of Belgium (Limburg, Antwerp West-Vlaanderen, Oost-Vlaanderen and Vlaams-Brabant) between 2008 and 2018. The Dutch data is provided by CBS (2019), while the Belgium data comes from Arvastat (2018), an official governmental bureau that provides labor market statistics for all the Belgium Dutch-speaking provinces. This dataset contains 99 observations (nine provinces times eleven years).

There are several reasons why this study focuses on these areas. Firstly, these provinces are being used because of their close geographical location (figure A.1, appendix A, page 41) and due to their cultural and demographical similarities. Table A.2 displays some of these demographical similarities between these two areas. Admittedly, there are some differences between the two areas. Yet, it is unlikely that these differences will have a significant impact on the analysis[4]. The second reason why these Belgium provinces will be used as a control group is that the Belgium government has not introduced a comparable anti-discrimination campaign during this period (Unia, 2019). Germany however, did announce a similar anti-discrimination campaign in 2015 called: *"Auchichbindeutschland"*, where celebrities promoted equal opportunities for every German citizen (Bild, 2015). Moreover, the Belgium economy shows more similarities with the Dutch economy compared to the German economy (table A.3). Finally, during the 2016 New Year's Eve, refugees where accused of

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[4] The reason behind this will be discussed in the methodology section of this thesis (section 3.4.1).

sexually assaulting multiple women in Germany (BBC, 2016). This may have also influenced the employment chances of ethnic minorities in Germany[5].

3.2.2. Evolution of the minority unemployment rate.

Figure 4 and 5 illustrate the evolution of the average foreign-born and female unemployment rate in the Netherlands and Belgium between 2008 and 2018. A more detailed version of these trends, which contains information about every province, is provided in appendix A (figure A.4 till A.7). For all these figures, the green dashed line represents the beginning of the anti-discrimination campaign in the Netherlands. Two features have to be noted about figure 4 and 5. Firstly, the unemployment rates in the Belgium provinces have always been higher than in the Dutch provinces. One reason for this is the idea that low skilled employees in Belgium are not able to find a job where they can succeed. The National bank of Belgium reported that in 2016 the share of low-schooled job seekers was 36% while only 11% of the available jobs had low-skilled requirements. For high-schooled individuals, 46% of the Belgium jobs required high-skilled individuals, yet only 23% off job seekers had such a high-skilled degree. Therefore, the labor market mobility is lower in Belgium, compared to other countries (Knack, 2018).

The second thing to note about figure 4 and 5 is that these figures show an almost equal evolution of the unemployment rate for both areas, until 2015 for the average foreign-born unemployment rate. After 2015, the Dutch foreign unemployment rate is declining while the Belgium foreign unemployment rate is rising. This may already indicate that the Dutch ZSD campaign had beneficial results. For the female unemployment rate, figure 5 reveals a decreasing trend for both areas after 2015. Despite these similar trends, this figure may also imply that the ZSD campaign was beneficial, because of the stronger reduction of the female unemployment rate in The Netherlands. One potential reason for these different trends between figure 4 and 5 may be related to the migration crisis in 2015. During this period over one million refugees illegally crossed the European border, while the

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[5] This relates to the discussed theory on the insignificant long-term effects of anti-discrimination campaigns (Climate Adapt, 2015).

economy was recovering from a recession (BBC, 2015; CBS, 2016). Intuitively, the impact of the increased level of immigration may offset this recovery. Hence, while the female unemployment rate declined during 2015 because of a growing economy, the foreign-born unemployment rate increased because of more migration.
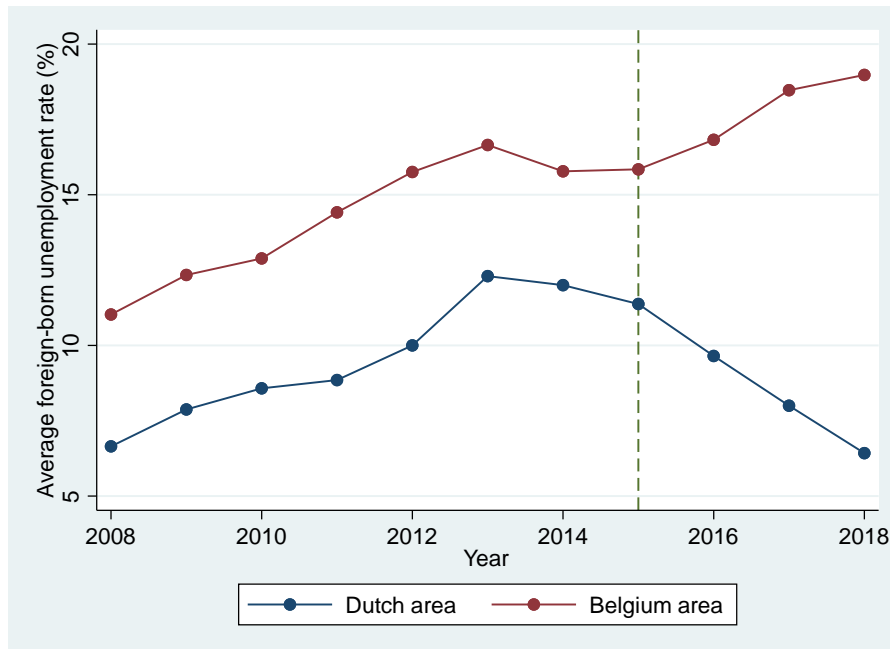

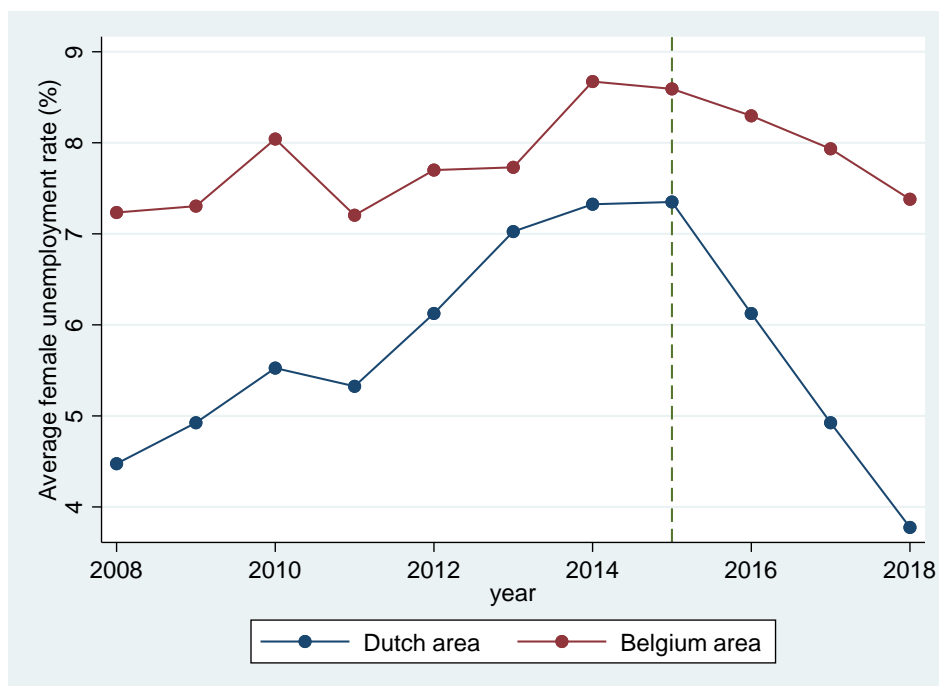*Figure 4. Evolution of the average foreign-born unemployment rate in The Netherlands and Belgium.*

Figure 5. Evolution of the average female unemployment rate in The Netherlands and Belgium.

3.3. Dutch panel data.

3.3.1. Data sources and selection procedure.

This dataset consists of economic information on fifteen Dutch ISCO-08 job industries from 2009 to 2017 (total number of observations is 135). This information is presented by the following variables: employment level per gender and migration background, job satisfaction, employee satisfaction and several control variables (e.g. average wage level & total revenue). While, the employment levels and the control variables are from CBS (2019) (as introduced in section 3.2.1.), the satisfaction indicators are from waves two to ten of the Work and Schooling survey of the Dutch Longitudinal Internet Studies for the Social sciences (LISS) panel dataset (2019). This panel survey, started since 2007, consists of roughly 4500 households and 7000 individuals. This survey measures employee and overall job satisfaction for each individual by asking their respondents on a scale from one (not satisfied) to ten (fully satisfied) how they value(d) their overall work and employees (variables cw131 and cw133). Moreover, each individual had to indicate whether they were currently working (cw000) and in which industry (cw402). For the analysis of this paper, individuals in a certain wave who indicated that they currently did not work, were deleted from the data. This is done to prevent measurement error, since non-working individuals may only base their satisfaction scores on historical estimations. Furthermore, individuals who filled in "I don't know" were originally indicated with the value "999". These observations have been replaced by a dot in order to obtain valid estimates. Finally, the natural logarithm has been taken for the average wage of an ISCO-08 job sector. This has been done to change the interpretation of this variable from absolute to relative.

After these transformations, the average employee and overall job satisfaction score for every industry and for every wave were calculated. These calculations were based on roughly 2800 observations for every wave. The amount of observations for every industry and year is given in table B.1. This collection of average satisfaction values has been merged with the job industry data from CBS (2019). In CBS, some of these job industries have been combined, since CBS and LISS sometimes use different job sector categories (see table B.2). Finally, for the estimation of the already introduced diversity ratio (RU_j), the sum has been taken off the squared employment

shares for men and women from five migration backgrounds (Dutch, EU15 (exclusive The Netherlands), Europe (exclusive EU15), outside Europe and unknown/other).

3.3.2. Descriptive statistics.

Table 6 presents several descriptive statistics for all the 15 ISCO-08 job sectors in three consecutive years. Several elements of this dataset are illustrated with this table. Firstly, the relatively high standard deviations for almost every variable indicate a high variety between the job sectors in this dataset. Secondly, the distribution of the satisfactions scores indicates that the average employee is satisfied with their colleagues and their overall job. Yet, the evolution of these average scores indicates a slight negative pattern. This is a striking finding, since the Rate of Uniformity is declining, which indicates a higher level of diversity in these job sectors. Regarding the evolution of the other control variables, their averages illustrate welfare improvement (increasing hourly wage, revenues and total companies and reducing bankruptcies). A final thing to note is the minimum value of bankruptcies for each year (zero). The explanation for this is that these values originate from the government job sector.

Table 6. Descriptive statistics for all the sectors for three years.

Year	2009				2013				2017			
Variable	Mean	Std.Dev	Min	Max	Mean	Std.Dev	Min	Max	Mean	Std.Dev	Min	Max
Total employees (x1000)	520.600	469.0-56	7.00	1435	515.-533	474.741	9.00	1376	538.4-67	507.714	8.00	1605
Rate of Uniformity	0.549	0.122	0.392	0.7-80	0.538	0.111	0.3-82	0.749	0.528	0.112	0.3-63	0.746
Employee satisfaction	7.579	0.296	6.667	7.8-42	7.496	0.232	6.9-07	7.809	7.494	0.244	6.9-73	7.776
Job satisfaction	7.456	0.291	6.694	7.8-95	7.310	0.202	6.9-07	7.629	7.307	0.273	6.763	7.854
Average hourly wage	20.999	5.110	12.460	33.-580	22.379	5.124	13.-06	33.24	23.4-26	5.676	13.08	35.03
Total companies	76970.-670	76597.-610	295	277-395	91041	88729.-91	345	3422-05	1058-15	102246.1	410	4026-45
Average revenue (mln. €)	13960.-800	16319-2.5	17203	500-853	16008-3.5	199330.1	197-70	5993-12	17787-4.50	223478.-30	209-26	6624-98
Total bankruptcies	1060.5-33	1266.-592	0	3802	1252.-67	1444.932	0	4310	513.-60	567.443	0	1688
Total investments (mln. €)	5233.75	4505.-041	795	143-97	5793	4856.612	712	152-70	3838.-70	3506.7-58	437	8691

3.3.3. The evolution of the RU_j and job satisfaction.

To get a more detailed description of the Rate of Uniformity and the satisfaction indicators, figures 7, 8 and 9 have been made. These figures respectively show the evolution of the Rate of Uniformity, the employee satisfaction score and the overall job satisfaction score for every sector in the Netherlands. For every figure, the dashed blue line, with diamond points, illustrates the average trend of these sectors.

Figure 7 shows that globally, the three most diversified job sectors are business services plus real estate, agriculture and catering. The three least diversified sectors are construction, utilities and healthcare. The Dutch organization PBL (2014), "Planbureau voor de Leefomgeving", found similar results. According to their report (page 51), most immigrant employees are working in business services (5.7%), catering (6.5%), mining (9.9%) or temporary (7.5%). Furthermore, the top four job industries where foreign employees do not work are healthcare (3.0%), utilities (1.9%), construction (1.8%) and the government (1.2%). There are some differences between figure 7 and this report, but these may be explained by the usage of different terminology for the job industries. Moreover, PBL (2014) did not categorize migrants into different ethnicities.

For most industries, figure 7 indicates that the average Rate of Uniformity stays relatively constant over time. This is contrary to the evolution of the employee satisfaction and overall job satisfaction scores in figure 8 and 9. Although employees are always relatively happy with their colleagues and their occupation, these satisfaction scores are highly volatile. Still, these figures indicate some correlation (0.4753) between these two satisfaction variables. In 2017, it seems that employees where most satisfied with their colleagues in education, business plus real estate and mining, while they were the least satisfied with their colleagues in agriculture, utilities and transport plus communication. For the overall job satisfaction scores, job sectors with the most satisfied employers in 2017 were healthcare, education and mining. Lastly, the least satisfied employers of 2017 worked in catering, agriculture and utilities. These are already surprising findings since it was expected that the satisfaction scores were positively related to the rate of diversity. Nevertheless, these figures do not account for other time varying confounders.

A final thing to note about these figures are the average trends. Looking back at the first hypothesis of this paper, it seems that after 2015 the average Rate of Uniformity slightly declined. This reduction is mostly explained by the utilities, mining and the transport plus communication sectors. Figure 8 and 9 in return show that the average employee satisfaction and job satisfaction increased after 2015. This may also indicate that the ZSD campaign was successful and that diversity stimulates job satisfaction. Still, this discontinuity of the Rate of Uniformity is rather low and the increase of the employer's satisfaction level could also be explained by the increased awareness on labor market discrimination (rather than lower stress levels as Stempfle et al. (2001) argue). As with Vaughan and Hansen (2004), employees from ethnic minority groups may also become more satisfied with their jobs after an anti-discrimination campaign because of the increased feeling that these individuals are also accepted in this society.
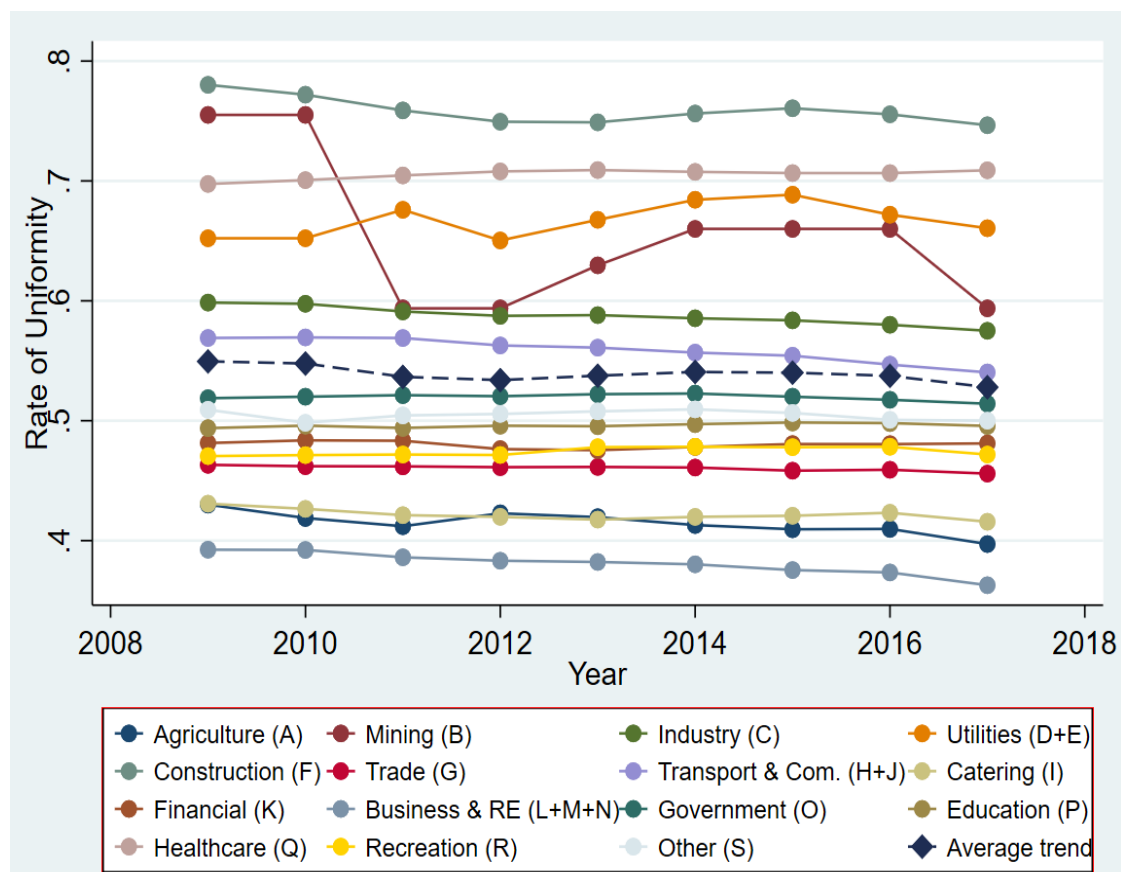

Figure 7. Trend of the Rate of Uniformity for every job sector between 2009 and 2017.
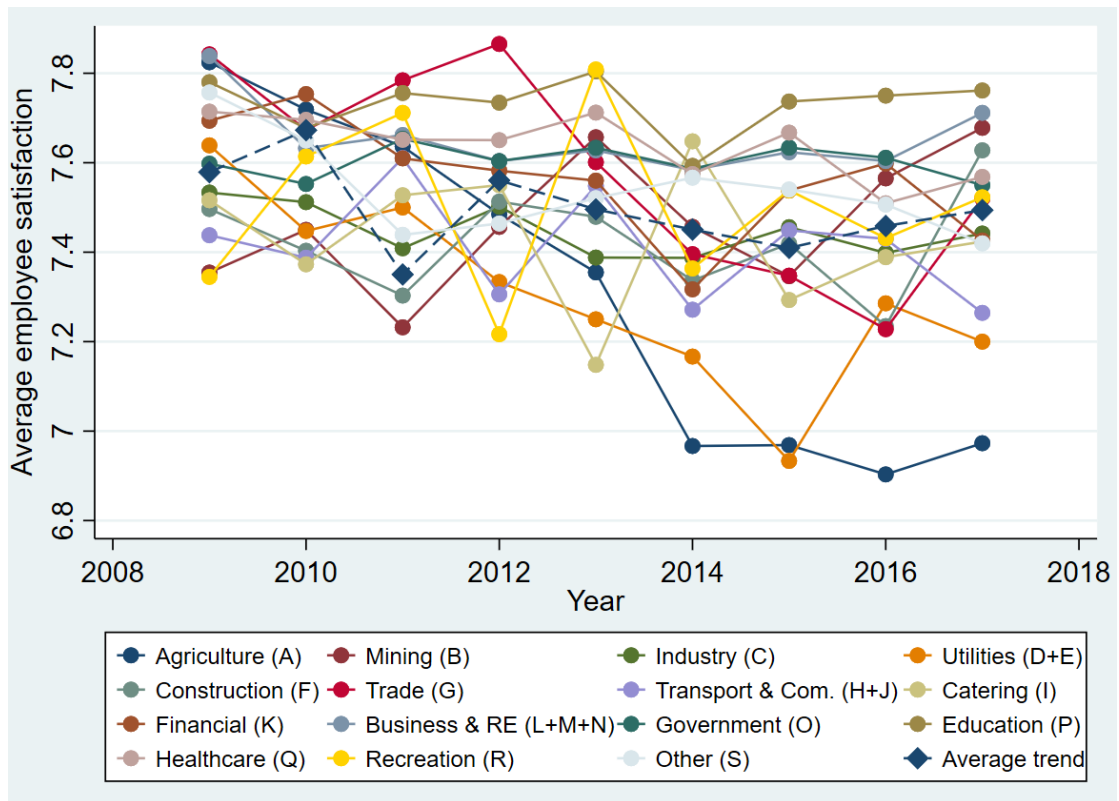
Figure 8. Trend of the employee satisfaction for every job sector between 2009 and 2017.
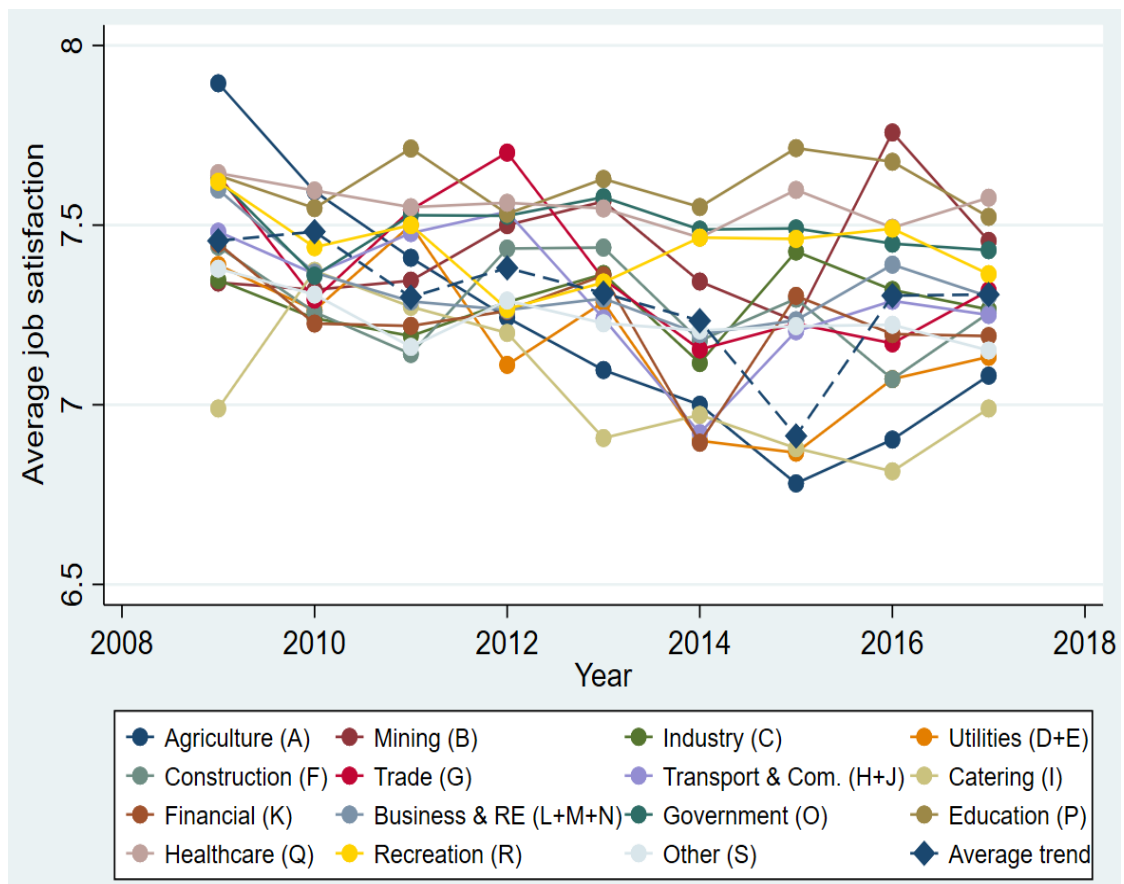

Figure 9. Trend of the job satisfaction for every job sector between 2009 and 2017.

3.4. Methodology.

3.4.1. Difference-in-difference measurements.

In order to estimate the effectiveness of a Dutch anti-discrimination campaign, two difference-in-difference models will be used on the national time-series data. While the first model will estimate an instantaneous effect, the second model will estimate a more dynamic effect. In this second model, it will be estimated whether this campaign gradually reduced labor market discrimination three years after the intervention. Compared to an OLS regression, both models are more useful for causal estimations, because a double difference design allows for differences between the treatment group (The Netherlands) and the control group (Belgium). Thus (with a valid design), other relevant confounding variables do not have to be measured. Intuitively, the counterfactual for such a design is the trend of the Belgian unemployment rate for the Netherlands after 2015 (see figures C.1 and C.2). Then, the causal effect is measured by subtracting the treatment value from this counterfactual.

For the instantaneous effect of the Dutch anti-discrimination campaign, the following regression model will be estimated:

$$Unemployment\ rate_{A,t} = \alpha + \rho T_{A,t} + \beta A + \gamma t + e_{A,t}.$$

In this model, the unemployment rate off foreigners or females for a certain area (A) and year (t) is the dependent variable. The constant and the error term are presented by a and $e_{A,t}$. The expression: βA and γt stands for the effect of area and time dummies on the dependent variable. Finally, the treatment effect is measured by $\rho T_{A,t}$, where $T_{A,t}$ will be 1 if the area is one of the Dutch provinces and the year is higher than or equal to 2015. In all other cases, $T_{A,t}$ will be 0.

The gradual effect of the campaign will be measured by the following regression model:

$$Unemployment\ rate_{A,t} = \alpha + \sum_{t=B_{pre}}^{E_{pre}} \rho_t T_{A,t} + \sum_{t=B_{post}}^{E_{post}} \rho_t T_{A,t} + \beta A + \gamma t + e_{A,t}.$$

The only difference between this model and the first model is this expression: $\sum_{t=B_{pre}}^{E_{pre}} \rho_t T_{A,t} + \sum_{t=B_{post}}^{E_{post}} \rho_t T_{A,t}$. This expression is a vector of treatment effects for two periods. The first period is the pre-treatment period (starting from 2008 (B_{pre}) until 2013 (E_{pre})), while the second period is the treatment period (starting

from 2015 (B_{post}) until 2018 (E_{post})). The year 2014, one year before the start of the anti-discrimination campaign, will be used as a reference point. The treatment indicator for this model, $T_{A,t}$, will be 1 if the area is in the treatment group (one of the Dutch provinces) and will be 0 otherwise. The yearly treatment parameter will be captured by ρ_t.

The only two assumptions that are relevant for causal estimations with both designs are the parallel trends assumption and a sufficient amount of observations. While the latter assumption may be violated for both analyses, the former assumption is more important to ensure internal validity (Columbia Mailman School, 2019). This parallel trends assumption states that, prior to the intervention, the trends of both the treatment and the control group have to be the same. Although figures 4 and 5 approximately show that the parallel trends may hold, the following methods will be used to test this assumption. For the instantaneous model, the following regression model will be measured.

$$Unemployment\ rate_{At} = \alpha + \beta A + \gamma t + \sum_{j=0}^{J} \rho T_{A(t+j)} + e_{At}.$$

In this model, $\rho T_{A(t+j)}$ is defined as the treatment effect of the treatment indicator lead, j. Here, the parallel trend assumption is violated if this variable is significant[6]. For the gradual model, the treatment indicators prior to the intervention ($\sum_{t=B_{pre}}^{E_{pre}} \rho_t T_{A,t}$) have to be insignificant. Moreover, these pre-treatment variables must estimate a coefficient that is relatively close to zero, since an insignificant high pre-treatment effect may also indicate that the parallel trends assumption is violated.

3.4.2. Fixed effects model.

For the impact of a more diverse firm on job satisfaction and employee satisfaction a fixed effects model will be estimated by using the Dutch panel dataset. An advantage of this model, compared to an Ordinary Least Squares regression, is that it controls for time-invariant confounders. For example, the overall job requirements for a particular job sector will relatively stay constant over time. Therefore, this method will reduce

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[6] As with the existing scientific literature, a 5% significance level and robust standard errors will be used.

omitted variable bias, which could give a more causal estimation. The fixed effects model that will be estimated, can be captured by the following formula:

$$Job\ satisfaction_{Jt} = \alpha_J + \rho RU_{Jt} + \sum_{c=1}^{C} \beta_c X_{c,Jt} + \sum_{k=1}^{K} \beta_c X_{c,J(t-1)} + e_{Jt}.$$

The dependent variable in this model is the organizational welfare for job sector j and period t, conceptualized into job satisfaction. As with the previous models, the constant and error term are presented by α_J and e_{Jt}. The impact of diversity on job satisfaction is measured by ρRU_{Jt}. Again, it is expected that $\rho < 0$, since the Rate of Uniformity is the inverse of the diversity ratio. Finally, this model accounts for the effects of several time-varying control variables (including the employment shares of females, non-natives and female foreigners) which are represented by, $\sum_{c=1}^{C} \beta_c X_{c,Jt}$ and $\sum_{k=1}^{K} \beta_c X_{c,J(t-1)}$. For the latter notation, the first lag of several confounders has been taken in order to prevent mechanisms from creating a bias. For instance, it is likely that Rate of uniformity in period t will influence the revenue in the same period[7], which in return could influence the job satisfaction in period t (Bianchi, 2012). However, it is unlikely that the diversity ratio in period t influences the revenue in period $t - 1$. Figure C.3 presents a causal diagram to illustrate this idea.

4. Results.

4.1. Hypothesis 1.

The first hypothesis relates to the effectiveness of the Dutch ZSD campaign, in which this campaign should reduce the unemployment rate for women and foreigners. For the instantaneous effect, table 10 displays the results of two difference-in-difference estimations. Model A uses the foreign unemployment rate as the dependent variable, while model B uses the female unemployment rate as the dependent variable. As was already shown in figure 4 and 5, both models in table 10 indicate a significantly lower unemployment rate for all the provinces of The Netherlands, compared to Belgium. What is also similar to these figures is that it seems that the ZSD campaign did significantly reduce the unemployment rate for foreigners and women. Both models

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[7] According to Stempfle et al. (2001), diversified firms are more able to assign tasks efficiently. In return, this could stimulate a firm's revenue.

report a negative instantaneous effect. Model A indicates that, on average, the campaign reduced the average foreign-born unemployment rate with 3.683%, ceteris paribus. Model B reports a reduction of the average female unemployment rate of 0.626% because of the campaign, ceteris paribus. It may also be argued that these results are also internally valid since table D.1 and D.2 indicate that the parallel trends assumption is not violated for both models.

Table 10. Difference-in-difference estimation for the immediate effect of an antidiscrimination campaign on the foreign-born unemployment rate (model A) and female unemployment rate (model B). The standard errors of the coefficients are presented in parenthesis.

Variable	Model A	Model B
Treatment indicator	-3.683 (0.696)***	-0.626 (0.263)*
Limburg (Netherlands)	-4.444 (0.628)***	-2.769 (0.194)***
Noord-Brabant	-4.217 (0.621)***	-3.096 (0.212)***
Zeeland	-5.835 (0.587)***	-3.706 (0.192)***
Zuid-Holland	-2.881 (0.692)***	-2.160 (0.307)***
Limburg (Belgium)	-2.691 (0.593)***	-2.578 (0.257)***
Oost-Vlaanderen	-1.489 (0.528)**	-1.747 (0.251)***
West-Vlaanderen	0.733 (0.741)	-1.606 (0.190)***
Vlaams-Brabant	-1.083 (0.662)	0.648 (0.192)***
2009	1.276 (0.524)*	0.239 (0.298)
2010	1.923 (0.514)***	0.911 (0.290)**
2011	2.797 (0.449)***	0.357 (0.253)
2012	3.862 (0.446)***	0.992 (0.266)***
2013	5.349 (0.420)***	1.409 (0.344)***
2014	4.765 (0.477)***	2.060 (0.306)***
2015	6.232 (0.864)***	2.311 (0.361)***
2016	5.881 (0.610)***	1.602 (0.289)***
2017	6.068 (0.696)***	0.872 (0.312)**
2018	5.558 (1.015)***	0.035 (0.372)
Constant	10.955 (0.631)***	7.898 (0.240)***
Observations	99	99
R squared	0.867	0.898
Adjusted R squared	0.835	0.8735
F statistic	53.53	70.75

*$P<0.05$; **$p<0.01$; ***$p<0.001$*

To gain more insight on the dynamics of the treatment effects, table 11 has been made. As already noted in section 3.4.1 this table has been added to look at the gradual effects of the anti-discrimination campaign. In this table, the treatment indicators are labelled -6 (2008) till -1 (2013) in the pre-treatment period and 1 (2015) till 4 (2018) in the treatment period. As with table 10, the treatment indicators generally show a significant negative trend of the treatment effects for both models. Moreover, the parallel trends assumption is not violated for both models because of the relatively low treatment coefficients of the pre-treatment variables, which are also insignificant. These results are also graphically illustrated in figure D.3 and D.4. Despite these findings, a more interesting finding of these results are the insignificant parameters for the 2015 treatment variables and the 2016 treatment variable of model D. These coefficients may present that the impact of the campaign is stronger two years after implementation compared to one year after implementation. One potential reason for this result is that managers may need time to reduce their bias. Upon seeing the commercials, managers may feel more engaged to hire several minority applicants. Then, after several years, business owners may experience positive results from these applicants and, in the end, hire more minority workers.

To summarize the results of both tables, the ZSD campaign significantly reduced labor market discrimination on average. Yet, the success of this campaign is mostly explained by the reduction of the foreign-born and female unemployment rate two years after the implementation of this intervention. Because of these results, the first hypothesis will not be rejected. However, the lack of observations may impose a limitation for these analyses, even though the parallel trends assumption holds. More limitations with these results will be discussed in section 5.2.

Table 11. Difference-in-difference estimations for the gradual impact of an antidiscrimination campaign on foreign-born unemployment rate (model C) and female unemployment rate (model D). The standard errors of the coefficients are presented in parenthesis.

Variable	Model C	Model D
Treatment indicators		
-6	-1.053 (0.930)	-1.022 (0.529)
-5	-1.144 (0.922)	-1.042 (0.536)
-4	-1.049 (0.880)	-0.872 (0.489)

-3	-1.128 (0.653)	-0.534 (0.462)
-2	-1.379 (0.693)	-0.238 (0.492)
-1	-0.512 (0.639)	0.632 (0.489)
1	-0.818 (0.649)	0.095 (0.487)
2	-3.292 (0.733)***	-0.834 (0.502)
3	-6.598 (0.832)***	-1.680 (0.483)***
4	-8.516 (1.194)***	-2.244 (0.531)***
Area and year dummies		
Limburg (Netherlands)	-3.321 (0.658)***	-2.230 (0.387)***
Noord-Brabant	-3.094 (0.666)***	-2.557 (0.391)***
Zeeland	-4.712 (0.755)***	-3.166 (0.462)***
Zuid-Holland	-1.757 (0.712)*	-1.621 (0.434)***
Limburg (Belgium)	-2.691 (0.577)***	-2.578 (0.204)***
Oost-Vlaanderen	-1.489 (0.484)**	-1.747 (0.181)***
West-Vlaanderen	0.733 (0.633)	-1.606 (0.152)***
Vlaams-Brabant	-1.083 (0.574)	0.648 (0.135)***
2009	1.316 (0.849)	0.070 (0.338)
2010	1.921 (0.865)*	0.800 (0.323)*
2011	3.276 (0.615)***	-0.038 (0.297)
2012	4.273 (0.591)***	0.466 (0.270)
2013	5.109 (0.615)***	0.496 (0.332)
2014	4.297 (0.571)***	1.428 (0.282)***
2015	4.490 (0.570)***	1.358 (0.293)***
2016	5.239 (0.670)***	1.062 (0.278)***
2017	6.895(0.830)***	0.708 (0.338)*
2018	7.238 (1.103)***	0.122 (0.382)
Constant	10.924 (0.754)***	8.291 (0.218)***
Observations	99	99
R squared	0.941	0.947
Adjusted R squared	0.917	0.926
F statistic	105.97	213.61

*P<0.05; **p<0.01; ***p<0.001*

4.2. Hypothesis 2.

For the second hypothesis, the benefits of a diverse firm will be analyzed by looking
into the relationship between the Rate of Uniformity and job/employee satisfaction

for several ISCO-08 sectors. Table 12 and 13 provides the results of eight fixed effect models. Models E, F, G and H have employee satisfaction as the dependent variable, while models I, J, K, and L have overall job satisfaction as the dependent variable. Both model E and I illustrate that with a simple fixed effect regression, the coefficient for the diversity ratio is positive and significant. Ceteris paribus, an increase of the Rate of Uniformity by 10 percentage points will significantly increase the employee satisfaction by 0.665 points and job satisfaction by 0.460 points on average. This is an interesting result, since it was expected that an increase in the RU_j is accompanied by a decrease in the diversity of a job sector. Thus, this finding contradicts to the existing literature that support diverse organizations.

Because the coefficients for the RU_j in model E and I may be biased due to time-varying confounders, several control variables have been added in the models F, G, H, J, K and L. One surprising thing to note about these variables are the negative coefficients for the natural logarithm of the hourly wage, which are even significant in model E and F. In the literature, one explanation for this is the theory of hedonic adaptation. This concept explains that, in the short-term, individuals prefer to have a job that earns more compared to a job with less travel distance. However, on the long-term, individuals become dissatisfied with their job if they choose to have a job that pays more compared to a job with lower travel time. This is because material desires (earnings) have a higher rate of adaptation compared to intrinsic needs (free time) (Hershfield, Moligner, Barnea, 2016).

Focusing again on the Rate of Uniformity, the corresponding coefficients turned negative once the control variables have been added. The only exemption is model L, where the coefficient also increased compared to model K. One reason why this coefficient is higher is because of the lower amount of observations in model L[8]. Since models H and L contain fewer observations and higher standard errors, models G and K will be used for the answer of the second hypothesis. Contrary to model E and I, the coefficient for the rate of uniformity in these models are insignificantly negative.

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[8] CBS (2018) did not report the total value of the revenue and the investments for several job sectors. Moreover, the use of lags will also reduce the total number of observations.

Ceteris paribus, increasing the rate of uniformity by 10 percentage points will not significantly decrease employee satisfaction with 0.237 points and job satisfaction with 1.859 points on average. Hence, the second hypothesis is rejected.

Table 12. Fixed effect regression results for the relation between the rate of uniformity and employee satisfaction. The standard errors of the coefficients are presented in parenthesis.

Variable	Model E	Model F	Model G	Model H
RU	6.649 (1.089)***	6.853 (8.369)	-2.371 (5.147)	-3.965 (49.203)
2010		0.117 (0.182)	0.285 (0.269)	
2011		-0.131 (0.117)	0.211 (0.145)	0.172 (0.131)
2012		0.098 (0.194)	0.571 (0.416)	0.687 (0.333)
2013		0.009 (0.105)	0.521 (0.299)	0.398 (0.142)*
2014		-0.054 (0.148)	0.571 (0.415)	0.631 (0.297)
2015		-0.090 (0.094)	0.751 (0.474)	0.829 (0.829)*
2016		-0.019 (0.159)	0.854 (0.555)	0.916 (0.338)
2017		0.093 (0.226)	0.993 (0.591)	1.13 (0.440)*
Female employment share		-0.214 (2.099)	-5.078 (5.998)	5.404 (61.596)
Foreign employment share		0.471 (10.128)	-12.457 (7.551)	-23.976 (71.364)
Female and foreign employment share		-7.405 (13.890)	8.889 (7.032)	75.033 (70.175)
ln(hourly wage)			-8.279 (3.486)*	-13.840 (3.646)**
Total companies (millions)			1.489 (2.849)	-7.219 (8.041)
Bankruptcies (thousands)			0.111 (0.101)	0.072 (0.145)
1st Lag revenue (millions)				0.991 (2.931)
1st lag investments (thousands)				0.082 (0.078)
Constant	3.912 (0.587)***	4.006 (4.759)	36.083 (12.532)*	50.576 (46.125)
Observations	135	135	135	64
R squared	0.087	0.135	0.348	0.653
Adjusted R squared	0.081	0.051	0.265	0.535
F statistic	37.267	63.038	(missing)	(missing)

*P<0.05; **p<0.01; ***p<0.001

Table 13. Fixed effect regression results for the relation between the rate of uniformity and overall job satisfaction. The standard errors of the coefficients are presented in parenthesis.

Variable	Model I	Model J	Model K	Model L
RU	4.595 (0.713)***	-13.397 (10.144)	-18.585 (15.447)	14.968 (43.557)
2010		0.040 (0.168)	0.117 (0.231)	
2011		-0.0324 (0.081)	0.115 (0.199)	0.428 (0.337)
2012		0.0417 (0.140)	0.225 (0.299)	0.375 (0.258)
2013		-0.006 (0.130)	0.184 (0.287)	0.337 (0.195)
2014		-0.052 (0.240)	0.201 (0.452)	0.500 (0.576)
2015		-0.353 (0.206)	-0.001 (0.133)	0.077 (0.180)
2016		0.019 (0.231)	0.383 (0.531)	0.665 (0.621)
2017		0.029 (0.195)	0.408 (0.487)	0.696 (0.476)
Female employment share		-0.167 (5.450)	-3.083 (8.370)	61.639 (68.371)
Foreign employment share		-24.999 (13.288)	-31.996 (20.349)	12.445 (64.162)
Female and foreign employment share		10.338 (8.307)	15.720 (11.553)	-8.263 (70.655)
ln(hourly wage)			-3.795 (3.003)	-10.845 (5.147)
Total companies (millions)			-3.795 (1.622)	-0.233 (4.886)
Bankruptcies (thousands)			0.112 (0.801)	0.067 (0.125)
1st Lag revenue (millions)				2.507 (4.180)
1st lag investments (thousands)				0.153 (0.144)
Constant	4.822 (0.384)***	15.767 (7.388)	31.081 (18.587)	12.103 (38.619)
Observations	135	135	135	64
R squared	0.022	0.153	0.181	0.337
Adjusted R squared	0.015	0.071	0.078	0.111
F statistic	41.516	409.945	(missing)	(missing)

*P<0.05; **p<0.01; ***p<0.001

5. Conclusion and discussion.

5.1. Summary and main results.

The main purpose of this thesis was to elaborate on the existing literature regarding the encouragement and the benefits of diversity in the workplace. In order to answer the main research question: *"Can an anti-discrimination campaign reduce labor market discrimination and does an increase in workplace diversity improve the organizational welfare in the Netherlands?"* the results of the previous stated hypothesis will be summarized.

Marteau et al. (2002) and Dobbin and Kalev (2016) concluded that awareness campaigns may not bring sufficient results. They argued that awareness campaigns only focus on controlling behavior rather than changing behavior. Actively engaging managers to increase contact with employees from different social groups is a more successful way of achieving less labor market discrimination. Yet, while the main purpose of the 2015 Dutch "Zet een Streep tegen Discriminatie" was to increase awareness by using commercials, this paper contradicts to these previously mentioned articles since labor market discrimination has significantly reduced after this campaign in The Netherlands. Both the graphical representations in figure 4 and 5 and the results of table 10 and 11 indicated a significant negative treatment effect of the average foreign-born and female unemployment rate. More precisely, this treatment effect was even more negative for the foreign-born unemployment rate (-3.683) than for the female unemployment rate (-0.626). Furthermore, these negative effects were mostly explained by a significant reduction of the unemployment rates two years after the intervention[9]. These results are in line with Vaughan and Hansen (2004) and Thornicroft et al. (2014), who also found beneficial results of awareness campaigns towards people with a mental illness. People suffering from such an illness were more engaged to discuss their problems and suffered less from discrimination after the campaign. Still, this study does want to make clear that the structure and content of potential future campaigns should put an emphasis on

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[9] This may also contradict to Climate adapt (2015), who argued that awareness campaigns lack a long-term effect.

active engagement. This is because the ZSD campaign also stimulated this engagement, which makes it unclear on how this campaign reduced labor market discrimination.

For the second hypothesis, the impact of diversity on organizational welfare has been tested. Sutanto (2010), Nathan and Lee (2013) and Stempfle et al. (2001) indicated that a diverse workforce can improve the returns of an organization by means of a higher degree in innovations and employee well-being. Yet, this study contradicts to these findings. By approximating organizational welfare into job satisfaction and employee satisfaction for 15 job sectors, this thesis finds an insignificant negative relationship between the Rate of Uniformity and employee well-being. Model G and K in table 12 and table 13 report that the RU_j has an insignificant coefficient for both employee and job satisfaction, when controlling for several time-varying confounders. Thus, this thesis finds that employees do not necessarily experience more satisfaction at a diverse sector. This study may relate more to the earlier discussion of De Meuse et al. (2007) and Stockdale and Crosby (2004), who concluded a negative relationship between diversity and efficiency. Due to cultural and social differences, communication between employers becomes more difficult, which increases the probability of conflict within the organization. To summarize, this thesis does not find evidence towards greater efficiency of a diverse organization. Still, generally pursuing complete uniformity is unethical and against the earlier introduced 2010 equality act. Therefore, this study will conclude that more attention has to be devoted on the idea of working together within a diverse team. By doing so, task assignment will be improved and job satisfaction may increase.

5.2. Limitations and recommendations for future research.

Even though this study found evidence for the encouragement of diversity, several limitations of this study still need to be addressed. Firstly, the foreign-born unemployment rates in the national dataset were composed by combining Belgian and Dutch data from respectively Arvastat (2018) and CBS (2019). These two data sources used different measurements for the derivation of this value. While the Dutch data relied on the percentage of unemployed individuals in the workforce population, the Belgium data focused on the percentage of job seekers in the workforce

population. Furthermore, this study is limited by the approximation of labor market discrimination. It may be argued that the female and foreign-born unemployment rates do not account for the actual feeling of discrimination. Even though the ZSD campaign did reduce the female unemployment with a few percentage points, the self-assurance of these minority members can still increase after the introduction of this campaign. Moreover, discrimination goes beyond female and foreign-born unemployment. Labor market discrimination may also exist at the earnings of these social groups. Thirdly, the external validity of this study is limited, since my results only focus on a Dutch anti-discrimination campaign and because these results were estimated by using only observations from nine Dutch-speaking provinces. Lastly, it is not clear if the ZSD campaign was completely responsible for the reducing foreign and female unemployment rates. For instance, Trouw (2016) and BBC (2015) respectively reported that the total amount of jobs in the Dutch economy was rising and that Europe was facing a migration crisis.

The limitation that other time-varying confounders can bias the results is also suitable for the second topic in this paper, the benefits of a diverse workforce. While I controlled for several of these confounders in table 11 and 12, it is not possible to construct a fixed effects model that fully accounts for omitted variable bias. Furthermore, this study is also limited by the use of job satisfaction and employee satisfaction as the dependent variable. While Stempfle et al. (2001) may suggest a positive relation between diversity and job satisfaction, it can still be argued that job satisfaction does not completely explain why a firm has higher returns. Moreover, this dependent variable is also prone to measurement error, since employees may solely base their satisfactions score on earlier events rather than their overall employment. A final limitation of this study is the question to what extent job sectorial data can be used to provide a conclusion on the firm level.

Further research on the benefits of diversity may improve the internal and external validity of this study, by increasing the amount of observations. For instance, new panel data surveys may add questions regarding the diversity of an organization. Furthermore, more research can be devoted towards the results of figures 7, 8 and 9 (section 3.3.2). These figures indicated that after 2015, the average Rate of Uniformity

slightly declined while the average satisfaction scores slightly increased. Other research may thus provide more attention towards this discontinuity. Moreover, with the encouragement of workplace diversity, further research may provide an experiment to estimate the effect of an awareness campaign. Random firms may receive a letter that contains information about (for instance) the importance of equal opportunities for job applicants. After these letters have been sent, comparing the results of a later conducted correspondence survey may provide a constructive method to test the effectiveness of an awareness campaign. Finally, future research may also test the applied difference-in-difference models with the average wage of foreigners or the gender pay gap as the outcome variable and increase the amount of observations by looking at monthly data or by using other awareness campaigns.

6. Bibliography.

Altonji, J. G., & Blank, R. M. (1999). Race and gender in the labor market. *Handbook of labor economics*, *3*, 3143-3259.

Angner, E. (2016). *A Course in Behavioral Economics*. London: Palgrave Macmillan Education UK.

Arvastat. (2018). *Detailtabellen werkloosheid*. Retrieved from: https://arvastat.vdab.be/arvastat_detailtabellen_werkloosheid.html

Åslund, O., & Skans, O. N. (2012). Do anonymous job application procedures level the playing field?. *ILR Review*, *65*(1), 82-107.

BBC. (2016). *Germany shocked by Cologne New Year gang assaults on women*. Retrieved from: https://www.bbc.com/news/world-europe-35231046

Behaghel, L., Crépon, B., & Le Barbanchon, T. (2015). Unintended effects of anonymous resumes. *American Economic Journal: Applied Economics*, *7*(3), 1-27.

Benabou, R., & Tirole, J. (2010). Individual and corporate social responsibility. *Economica, 77*(305), 1-19.

Bianchi, M. (2012). Financial development, entrepreneurship, and job satisfaction. *Review of Economics and Statistics, 94*(1), 273-286.

Bild. (2015). *#auchichbindeautschland Diese Promis kämpfen gegen Rassismus*. Retrieved from: https://www.bild.de/unterhaltung/kino/iris-berben/dreht-kino-spot-gegen-rassismus-42414394.bild.html#fromWall

Bøg, M, & Kranendonk, E. (2011). *Labor market discrimination of minorities? Yes, but not in job offers*. doi: http://mpra.ub.uni-muenchen.de/33332/

Cain, G. G. (1986). The economic analysis of labor market discrimination: A survey. *Handbook of labor economics*, *1*, 693-785.

Cbs. (2016). *Nederland in 2015*. Retrieved from: https://www.cbs.nl/nl-nl/publicatie/2016/11/nederland-in-2015

CBS. (2018). *Regionale kerncijfers; nationale rekeningen 2010-2016*. Retrieved from: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82801NED/table?dl=FBB9

CBS. (2018). *Loonverschil tussen mannen en vrouwen iets kleiner*. Retrieved from: https://www.cbs.nl/nl-nl/nieuws/2018/47/loonverschil-tussen-mannen-en-vrouwen-iets-kleiner.

CBS. (2019). *Arbeidsdeelname; provincie.* Retrieved from: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/83523NED/table?fromstatweb

CBS. (2019). *Regionale kerncijfers Nederland*. Retrieved from: https://opendata.cbs.nl/statline/#/CBS/nl/dataset/82801NED/table?dl=FBB9

CBS. (2019). *Werkgelegenheid; geslacht, dienstverband, kenmerken werknemer, SBI2008*. Retrieved from: https://statline.cbs.nl/Statweb/publication/?DM=SNL&PA=81434NED&D1=a&D2=0&D3=0&D4=a&D5=0&D6=710&HDR=T&STB=G1,G2,G3,G4,G5&VW=T

CBS. (2019). *Investering in materiële vaste activa; bedrijfstak*. Retrieved from: https://statline.cbs.nl/StatWeb/publication/?PA=81352ned

CBS. (2019). *Bedrijfsleven; arbeids- en financiële gegevens, per brance, SBI 2008.* Retrieved from: https://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=81156NED&LA=NL

CBS. (2019). *Bedrijven; bedrijfstak*. Retrieved from: https://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=81589NED

CBS. (2019). *Arbeidspositie naar migratieachtergrond 2003-2017*. Retrieved from: https://www.cbs.nl/nl-nl/achtergrond/2019/08/arbeidspositie-naar-migratieachtergrond-2003-2017

Centre for Social Investigation. (2019). *New CSI research reveals high levels of job discrimination faced by ethnic minorities in Britain*. Retrieved from: http://csi.nuff.ox.ac.uk/?p=1299

Chang, E. H., Milkman, K. L., Gromet, D. M., Rebele, R. W., Massey, C., Duckworth, A. L., & Grant, A. M. (2019). The mixed effects of online diversity training. *Proceedings of the National Academy of Sciences*, *116*(16), 7778-7783.

Christiano, A., & Neimand, A. (2017). *Stop Raising Awareness Already*. Retrieved from: https://ssir.org/articles/entry/stop_raising_awareness_already

Climate Adapt. (2015). *Awareness campaigns for behavioural change (2015)*. Retrieved from: https://climate-adapt.eea.europa.eu/metadata/adaptation-options/awareness-campaigns-for-behavioural-change

Columbia Mailman School. (2019). *Difference-in-Difference Estimation*. Retrieved from: https://www.mailman.columbia.edu/research/population-health-methods/difference-difference-estimation

Combs, G. M., & Luthans, F. (2007). Diversity training: Analysis of the impact of self-efficacy. *Human Resource Development Quarterly*, *18*(1), 91-120.

De Meuse, K. P., Hostager, T. J., & O'Neill, K. S. (2007). A longitudinal evaluation of senior managers' perceptions and attitudes of a workplace diversity training program. *People and Strategy*, *30*(2), 38-47.

De Volkskrant. (2018). *Beboet discriminatie op de werkvloer zwaar*. Retrieved from: https://www.volkskrant.nl/columns-opinie/beboet-discriminatie-op-de-werkvloer-zwaar~b905e674/

Dobbin, F., Schrage, D., & Kalev, A. (2015). Rage against the iron cage: The varied effects of bureaucratic personnel reforms on diversity. *American Sociological Review*, *80*(5), 1014-1044.

Dobbin, F., & Kalev. A. (2016). *Why diversity Programs Fail*. Retrieved from: https://www.pediatrics.umn.edu/sites/pediatrics.umn.edu/files/why_diversity_programs_fail_hbr2016.pdf

EOC. (2019). *Definition of Equal Opportunities Under The Equality Act 2010*. Retrieved from: https://www.eoc.org.uk/

European Commission. (2019). *European Economic Forecast*. Retrieved from: https://ec.europa.eu/info/sites/info/files/economy-finance/ip102_en.pdf

European Union Agency for Fundamental Rights. (2017). *Second European Union Minorities and Discrimination Survey*. Retrieved from: https://fra.europa.eu/sites/default/files/fra_uploads/fra-2017-eu-midis-ii-main-results_en.pdf

Eurostat. (2018). *Employment rate by sex*. Retrieved from: https://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=tesem010

Eurostat. (2018). *Gender pay gap in unadjusted form by NACE Rev. 2 activity – structure of earnings survey methodology*. Retrieved from: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=earn_gr_gpgr2&lang=en

Financial Times. (2018). *Part-time working plays crucial role in gender pay gap*. Retrieved from: https://www.ft.com/content/fccde92e-0817-11e8-9650-9c0ad2d7c5b5

Forbes. (2018). *Companies Should Stop Focusing On Diversity*. Retrieved from: https://www.forbes.com/sites/paologaudiano/2018/04/02/stop-focusing-on-diversity/#571702736764

Glassdoor. (2019). *Progress on the Gender Pay gap: 2019*. Retrieved from: https://www.glassdoor.com/research/app/uploads/sites/2/2019/02/Gender-Pay-Gap-2019-Research-Report.pdf

Giuliano, L., Levine, D. I., & Leonard, J. (2011). Racial Bias in the Manager-Employee Relationship: An Analysis of Quits, Dismissals, and Promotions at a Large Retail Firm. *Journal of Human Resources, 46*(1), 26-52.

Green, K. A., López, M., Wysocki, A., & Kepner, K. (2002). Diversity in the workplace: Benefits, challenges, and the required managerial tools. *University of Florida*, *1*(4), 1-3.

Hershfield, H. E., Mogilner, C., & Barnea, U. (2016). People who choose time over money are happier. *Social Psychological and Personality Science, 7*(7), 697-706.

Investopedia. (2019). *Herfindahl-Hirschman Index (HHI)*. Retrieved from: https://www.investopedia.com/terms/h/hhi.asp

Jacquet, J. L., & Pauly, D. (2007). The rise of seafood awareness campaigns in an era of collapsing fisheries. *Marine Policy*, *31*(3), 308-313.

Kaas, L., & Manger, C. (2012). Ethnic discrimination in Germany's labour market: a field experiment. *German Economic Review*, *13*(1), 1-20.

Knack. (2018). *Ondanks de goede conjunctuur, blijft de hoge werkloosheid een serieus probleem*. Retrieved from: https://www.knack.be/nieuws/belgie/ondanks-de-goede-conjunctuur-blijft-de-hoge-werkloosheid-een-serieus-probleem/article-analyse-970121.html?cookie_check=1557400060

Krause, A., Rinne, U., & Zimmermann, K. F. (2012). Anonymous job applications in Europe. *IZA Journal of European Labor Studies*, *1*(1), 5.

Lesniewski, R., (2019). *De kaart van Benelux*. Retrieved from: https://nl.dreamstime.com/stock-illustratie-de-kaart-van-benelux-image65759396

Lewis, J. S., & Geroy, G. D. (2000). Employee spirituality in the workplace: A cross-cultural view for the management of spiritual employees. *Journal of Management Education*, *24*(5), 682-694.

Likeminds. (2019). *Forty seven per cent of New Zealanders will experience mental illness or distress in their lifetime*. Retrieved from: http://www.likeminds.org.nz/about/

Linnehan, F., Chrobot-Mason, D., & Konrad, A. M. (2006). Diversity attitudes and norms: The role of ethnic identity and relational demography. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *27*(4), 419-442.

LISS. (2019). *6 Work and schooling*. Retrieved from: https://www.dataarchive.lissdata.nl/study_units/view/16

Marteau, T. M., Sowden, A. J., & Armstrong, D. (2002). Implementing research findings into practice: beyond the information deficit model. *Getting research findings into practice. London: BMJ Books*, 68-76.

McKinsey & Company. (2015). *Why diversity matters*. Retrieved from: https://www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters

Migration Data Portal. (2019). *Migration data in Europe*. Retrieved from: https://migrationdataportal.org/regional-data-overview/europe

Migration Policy Institute. (2017). *Total immigrant and Emigrant Populations by Country*. Retrieved from: https://www.migrationpolicy.org/programs/data-hub/charts/total-immigrant-and-emigrant-populations-country

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties. (2018). *Handreiking antidiscriminatiebeleid voor gemeenten*. Retrieved from: https://www.movisie.nl/sites/movisie.nl/files/publication-attachment/Handreiking-antidiscriminatie-gemeenten%20%5BMOV-13953983-1.2%5D.pdf

Morgan, J., & Várdy, F. (2009). Diversity in the Workplace. *American Economic Review, 99*(1), 472-85.

Nathan, M., & Lee, N. (2013). Cultural Diversity, Innovation, and Entrepreneurship: Firm-level Evidence from London. *Economic Geography*, *89*(4), 367-394.

NBB.Stat. (2018). *Regionale rekeningen per institutionele sector – NACE 2008*. Retrieved from: http://stat.nbb.be/Index.aspx?DataSetCode=REGACSEC&lang =nl.

NBC News. (2016). *Belgium spooked by Migrant Influx as Europe's Refugees Crisis Spirals*. Retrieved from: https://www.nbcnews.com/storyline/europes-border-crisis/belgium-spooked-migrant-influx-europe-s-refugees-crisis-spirals-n527911

OECD. (2017). *Foreign-born unemployment*. Retrieved from: https://data.oecd.org/migration/foreign-born-unemployment.htm

OIS. (2016). *Monitor Jeugdwerkloosheid over 2016*. Retrieved from: https://www.ois.amsterdam.nl/downloads/pdf/2017_jeugdwerkloosheid_2016.pdf

Phelps, E. S. (1972). The statistical theory of racism and sexism. *The American economic review*, *62*(4), 659-661.

PBL. (2014). *Buitenlandse kenniswerkers in Nederland Waar werken en wonen ze en waarom?* Retrieved from: https://www.pbl.nl/sites/default/files/cms/publicaties/PBL_2014_Buitenlandse%20 kenniswerkers%20in%20Nederland_684.pdf

Rijksoverheid. (2019). *Aanpak van discriminatie op het werk*. Retrieved from: https://www.zeteenstreepdoordiscriminatie.nl

Rijksoverheid. (2019). *Discriminatie zet een streep door discriminatie*. Retrieved from: https://discriminatie.nl/#/home

Roberson, L., Kulik, C. T., & Pepper, M. B. (2009). Individual and environmental factors influencing the use of transfer strategies after diversity training. *Group & Organization Management*, *34*(1), 67-89.

Statbel. (2018). *Bevolking naar woonplaats, nationaliteit, burgerlijke staat, leeftijd en geslacht*. Retrieved from: https://bestat.statbel.fgov.be/bestat/crosstable. xhtml?view=5525fea5-4abb-424b-918c-d5a5658b9e34

Stempfle, J., Hübner, O., & Badke-Schaub, P. (2001). A functional theory of task role distribution in work groups. *Group processes & intergroup relations*, *4*(2), 138-159.

Stockdale, M. S., & Crosby, F. J. (2004). *The psychology and management of workplace diversity*. Malden: Blackwell Publishing.

Subeliani, D., & Tsogas, G. (2005). Managing diversity in the Netherlands: a case study of Rabobank. *The international journal of human resource management*, *16*(5), 831-851.

Sutanto, E. M. (2010). Turning Diversity into Competitive Advantage: A Case Study of Managing Diversity in the United States of America. *Jurnal Manajemen dan Kewirausahaan*, *11*(2), 154-160.

The Australian Human Rights Commission. (2015). *National Anti-Racism Strategy and Racism. It Stops with Me*. Retrieved from: https://bringingthemhome.humanrights.gov.au/sites/default/files/ National%20AntiRacism%20Strategy%20Summary%20Evaluation%20and%20Future %20Direction.pdf

The Economist. (2018). *Ten years on from Norway's quota for women on corporate boards*. Retrieved from: https://www.economist.com/business/2018/02/17/ ten-years-on-from-norways-quota-for-women-on-corporate-boards

The Global Economy. (2017). *Compare countries with annual data from official sources*. Retrieved from: https://www.theglobaleconomy.com/compare-countries/

The Washington post. (2016). *To improve diversity, don't make people go to diversity training. Really.* Retrieved from: https://www.washingtonpost.com/news/on-leadership/wp/2016/07/01/to-improve-diversity-dont-make-people-go-to-diversity-training-really-2/?noredirect=on&utm_ter m=.4b6e3011347f

Thornicroft, C., Wyllie, A., Thornicroft, G., & Mehta, N. (2014). Impact of the "Like Minds, Like Mine" anti-stigma and discrimination campaign in New Zealand on anticipated and experienced discrimination. *Australian & New Zealand Journal of Psychiatry*, *48*(4), 360-370.

Trouw. (2016). *Grote steden in Nederland bloeien: werk zat en hoge lonen*. Retrieved from: https://www.trouw.nl/home/grote-steden-in-nederland-bloeien-werk-zat-en-hoge-lonen~a14c1c3f/

Trouw. (2016). *Integratie-expert: 'Ontvriend nooit een racist'*. Retrieved from: https://www.trouw.nl/home/integratie-expert-ontvriend-nooit-een-racist-~a4f78c6c/

United Nations. (2019). *The Universal Declaration of Human Rights*. Retrieved from: http://www.claiminghumanrights.org/udhr_article_23.html#at25

Unia. (2019). *Campagnes*. Retrieved from: https://www.unia.be/nl/sensibilisering-en-preventie/campagnes

Vaughan, G., & Hansen, C. (2004). 'Like Minds, Like Mine': a New Zealand project to counter the stigma and discrimination associated with mental illness. *Australasian Psychiatry*, *12*(2), 113-117.

7. Appendix.

Appendix A. National time series data.

Figure A.1. Map of the Netherlands and Belgium and Luxemburg to show the geographical location of the already stated Dutch area and Belgium area. Lesniewski, R., (2019). *De kaart van Benelux*. Retrieved from: https://nl.dreamstime.com/stock-illustratie-de-kaart-van-benelux-image65759396

Table A.2. Key figures of the stated Dutch provinces and Belgium provinces. Retrieved from CBS (2018), CBS (2019), Arvastat (2018), NBB.Stat (2018) and Statbel (2018).

Province / Key figure	Noord Brabant	Limburg (NL)	Zeeland	Zuid Holland	Limburg (BE)	Antwerpen	Vlaams-Brabant	Oost-Vlaanderen	West-Vlaanderen
Surface (km^2)	5081	2209	2934	3403	2414	2867	2106	2991	3125
Total residents (2018) (thousands)	2,528	1,117	382	3,681	871	1847	1138	1505	1191
Total immigrants (2018) (thousands)	474	244	69	1164	88	210	114	97	61
GDP per capita (2016) (euro)	43058	35213	32097	41437	30799	44829	40742	34810	36809
Total labor force (2018) (thousands)	1364	573	197	1931	369	771	390	658	514
Unemployment rate (2018) (%)	3.4	3.6	3	4.2	6.4	8.1	5.4	6.2	5

Table A.3. Key figures of the Netherlands, Belgium and Germany in 2017. Retrieved from the Global Economy (2017) and Migration Policy Institute (2017).

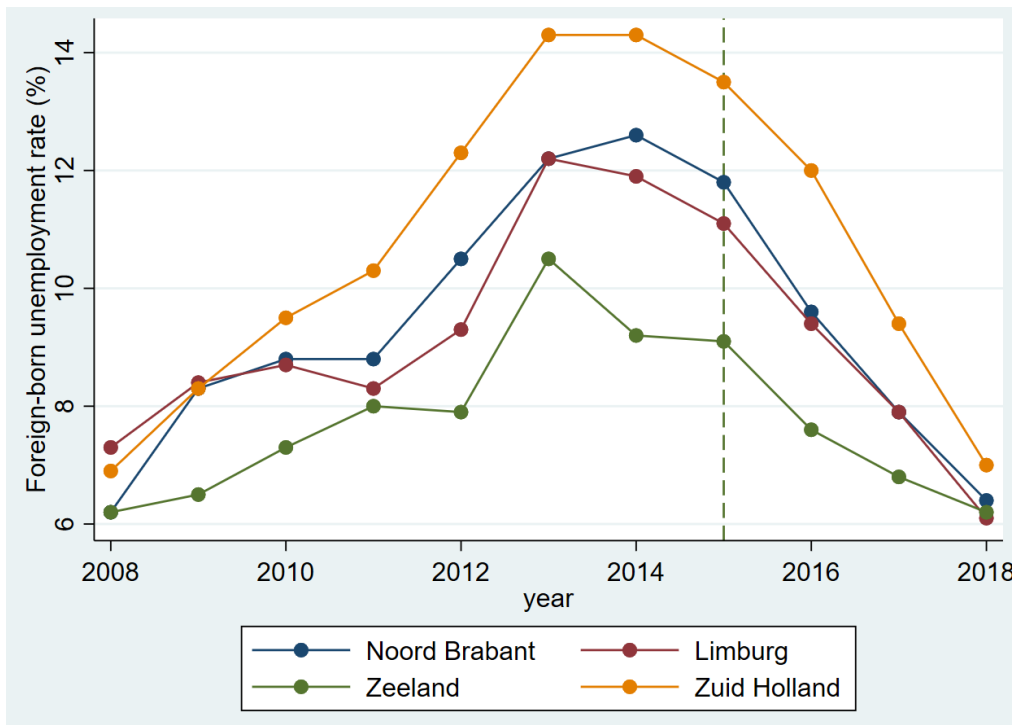| Key figure (measurement)	Netherlands	Belgium	Germany
Surface (thousand km^2)	42.5	30.7	357.4
Total residents (millions)	17.13	11.37	82.7
Total migrants (millions)	2.06	1.27	12.17
Total labor force (millions)	9.1	5.04	43.6
Gross domestic product per capita (current US dollars)	48,482.77	43,467.45	44,665.51
Unemployment rate (%)	4.84	7.09	3.75

Figure A.4. Trend of the foreign-born unemployment rate for four Dutch provinces between 2008 and 2018.
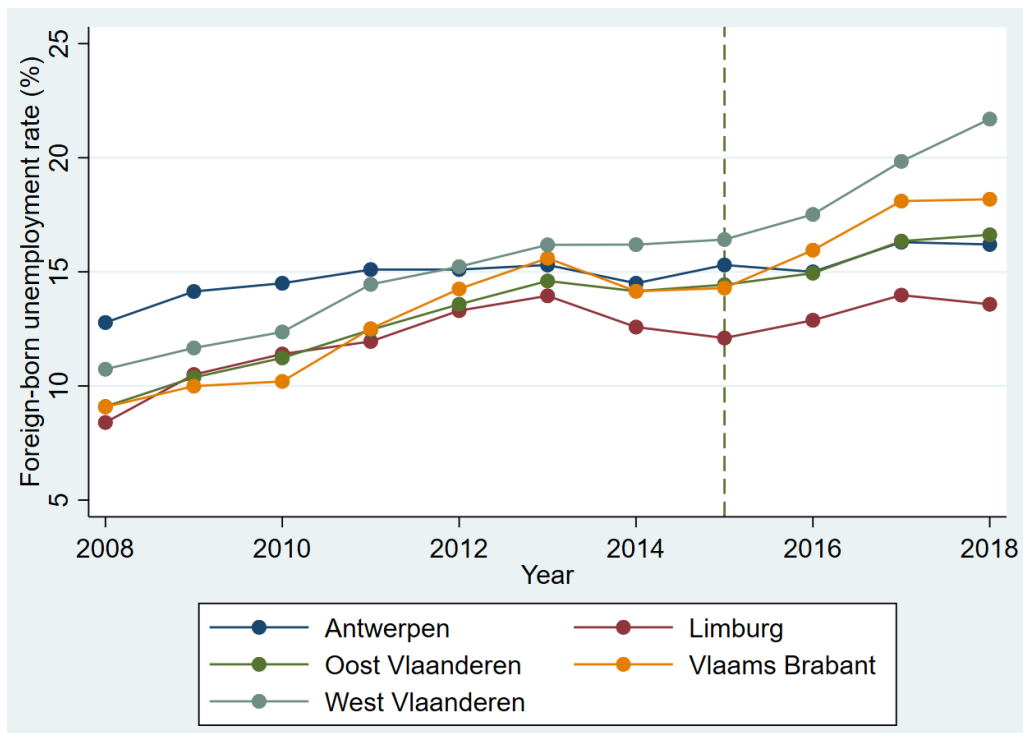

Figure A.5. Trend of the foreign-born unemployment rate for five Belgium provinces between 2008 and 2018
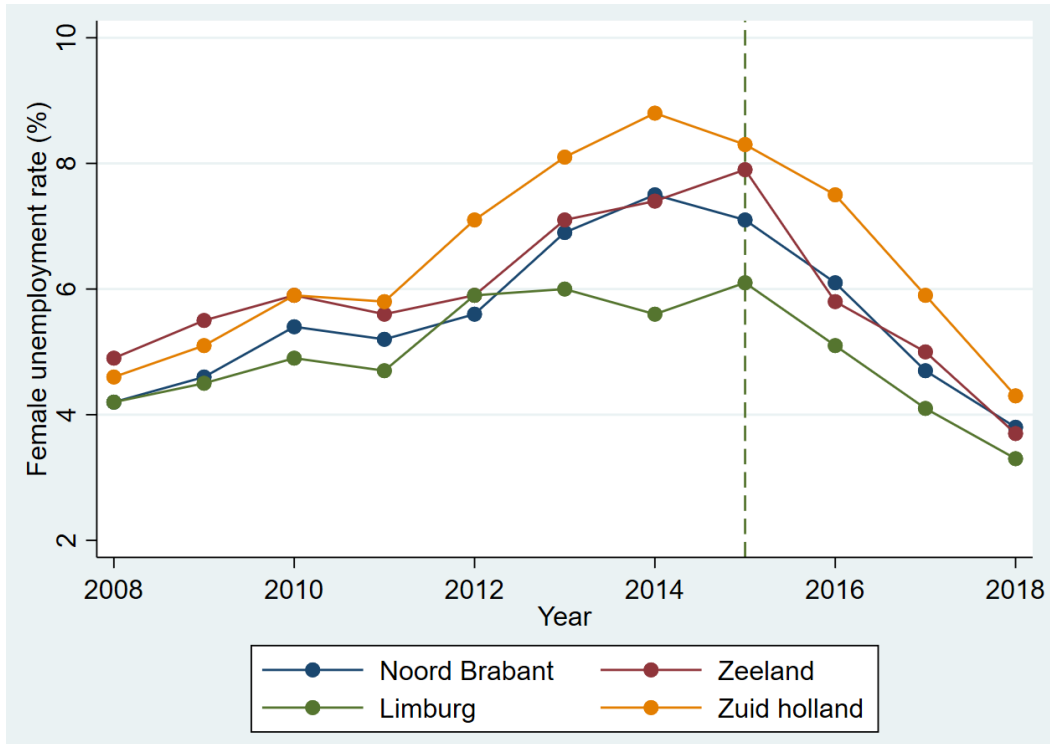
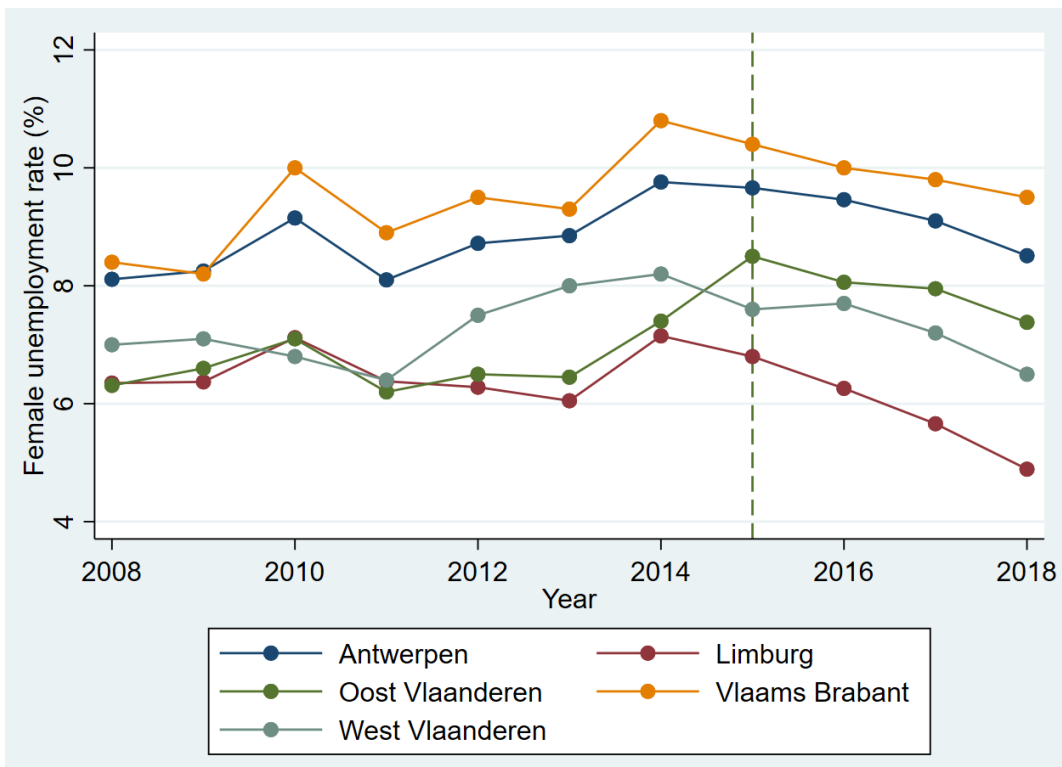*Figure A.6. Trend of the female unemployment rate for four Dutch provinces between 2008 and 2018.*

Figure A.7. Trend of the female unemployment rate for five Belgium provinces between 2008 and 2018.

Appendix B. Dutch panel data.

Table B.1. Amount of observations for every job category and year.

ISC0-08 sector	2009	2010	2011	2012	2013	2014	2015	2016	2017
Agriculture	68	56	41	58	52	54	55	50	59
Mining	4	3	2	4	1	3	2	1	1
Industrial production	289	303	241	280	261	295	279	251	254
Utilities	36	39	28	28	30	33	30	28	31
Construction	151	138	111	131	113	128	129	120	119
Retail	230	250	188	206	200	231	201	196	206
Catering	67	72	64	72	69	89	75	62	65
Transport, storage and communication	138	140	117	128	111	147	137	130	150
Financial	149	158	129	141	132	152	143	202	127
Business services (including real estate)	208	217	166	198	182	220	213	202	203
Government	287	299	260	278	255	293	279	257	252
Education	286	317	266	276	251	268	277	257	246
Healthcare	594	639	547	606	564	656	583	542	566
Environmental	60	68	63	74	64	71	68	67	62
Other	507	505	403	443	387	510	431	369	385
Total	3074	3204	2626	2923	2672	3150	2902	2662	2726

Table B.2. Lists of job sectors merged together.

| Job sector	CBS (2019)	LISS (2019)
A	Agriculture forestry and fishing	Agriculture, forestry, fishery, hunting
B	Mining and quarrying	Mining
C	Manufacturing	Industrial production
D+E	Energy supply and water supply	Utilities production
F	Construction	Construction
G	Wholesale and retail trade	Retail trade
H+J	Transportation, storage, information and communication	Transport, storage and communication
I	Accommodation and food serving	Catering
K	Financial institutions	Financial
L+M+N	Renting, other specialized business services and support	Business services, including real estate
O	Public administration and services	Government services, public administration
P	Education	Education
Q	Health and social work	Healthcare and welfare
R	Culture, sports and recreation	Environmental services, culture, recreation
S	Other service activities	Other

Appendix C. Methodology.
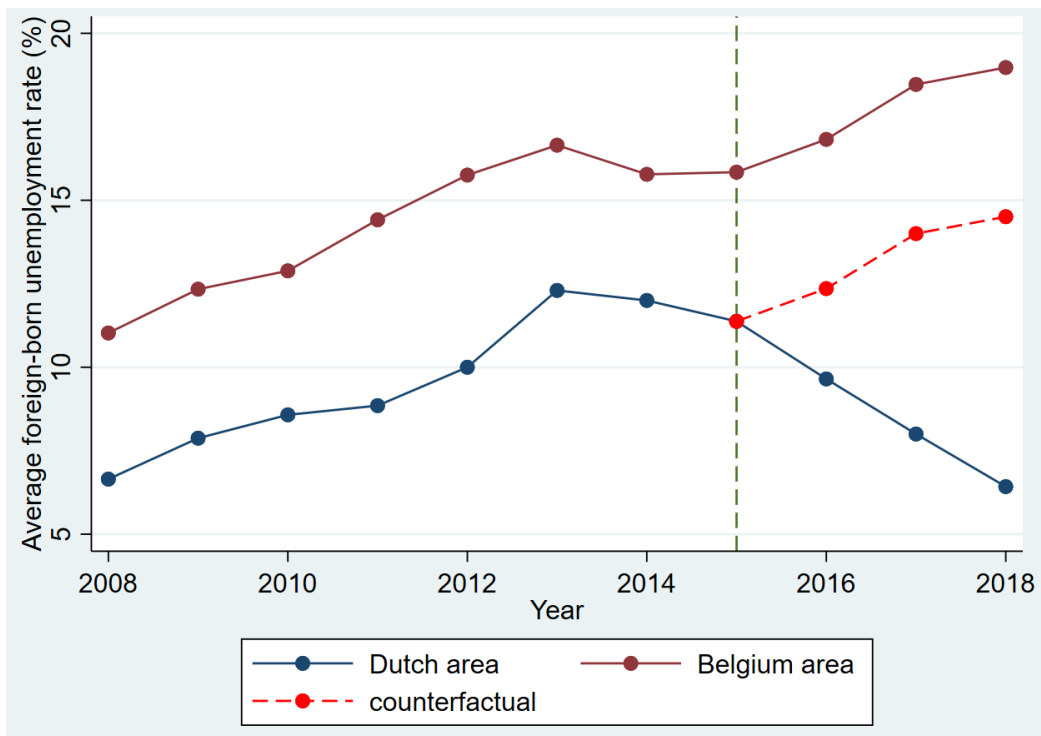
Figure C.1. Graphical representation of the counterfactual for the difference-in-difference design with foreign unemployment rate as the dependent variable.
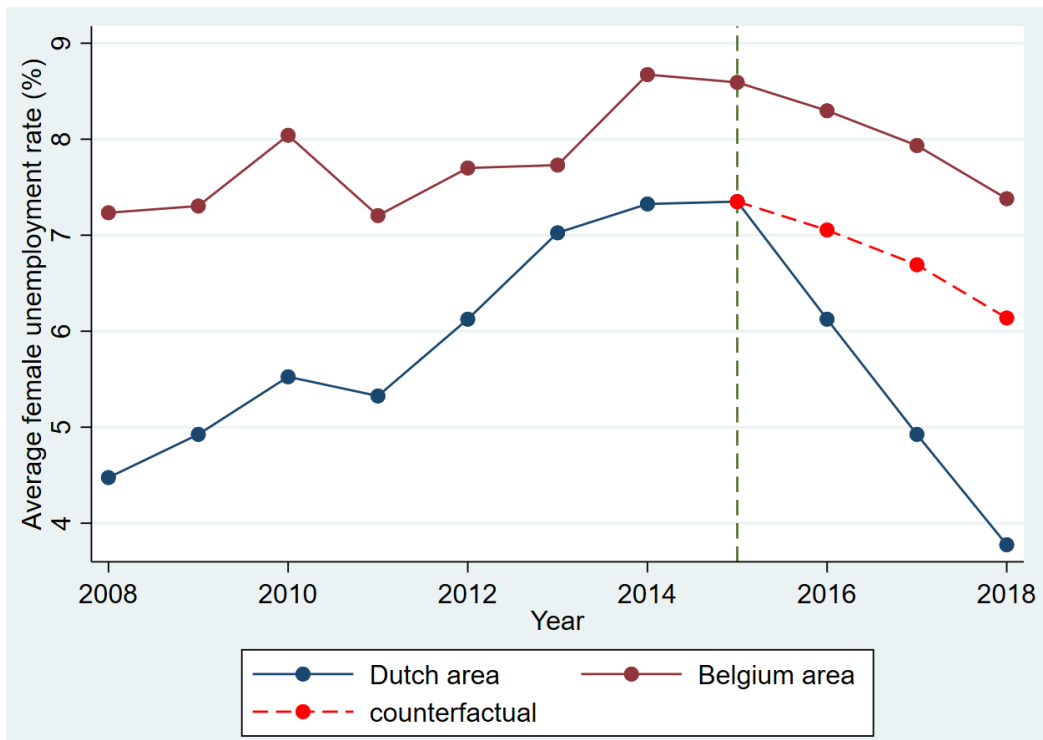

Figure C.2. Graphical representation of the counterfactual for the difference-in-difference design with female unemployment rate as the dependent variable.
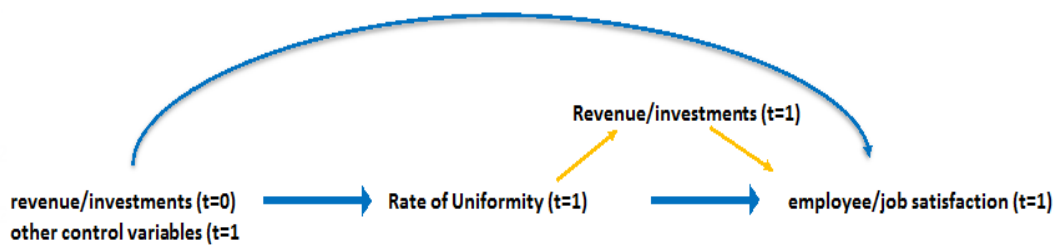
Figure C.3. Causal diagram to illustrate potential mechanisms.

Appendix D. Results.

Table D.1. Coefficients and p-values of the treatment lead variables with the foreign unemployment rate as the dependent variable.

Lead	Coefficient (Std. error)	p-value
Zero	-3.683 (0.696)	0.000
first	-2.534 (1.648)	0.051
Second	-1.819 (1.135)	0.056
Third	-1.758 (1.065)	0.051
fourth	-1.898 (1.145)	0.061

Table D.2. Coefficients and p-values of the treatment lead variables with the female unemployment rate as the dependent variable.

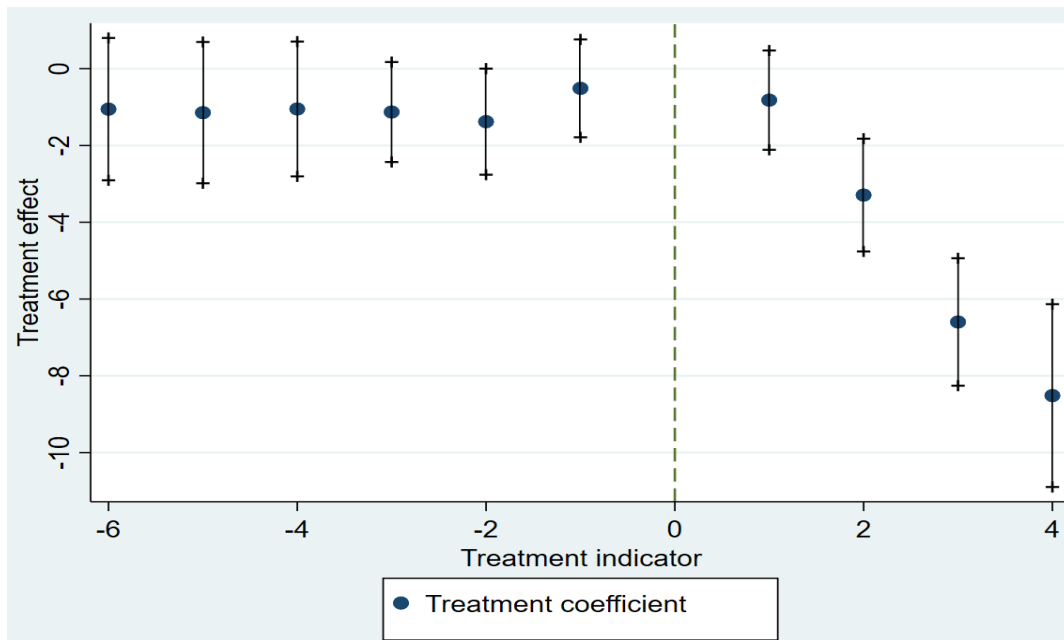| Lead	Coefficient (Std. error)	p-value
Zero	-0.626 (0.264)	0.020
first	-0.303 (0.259)	0.245
Second	0.210 (0.247)	0.398
Third	0.432 (0.235)	0.069
fourth	0.611 (0.338)	0.078

Figure D.3. Graphical representation of the treatment effects (ρ_t) in the pre-treatment period and treatment period for the foreign-born unemployment rate. The bars contain the 95% confidence intervals for these coefficients. the green dashed line indicates the reference point (2014).
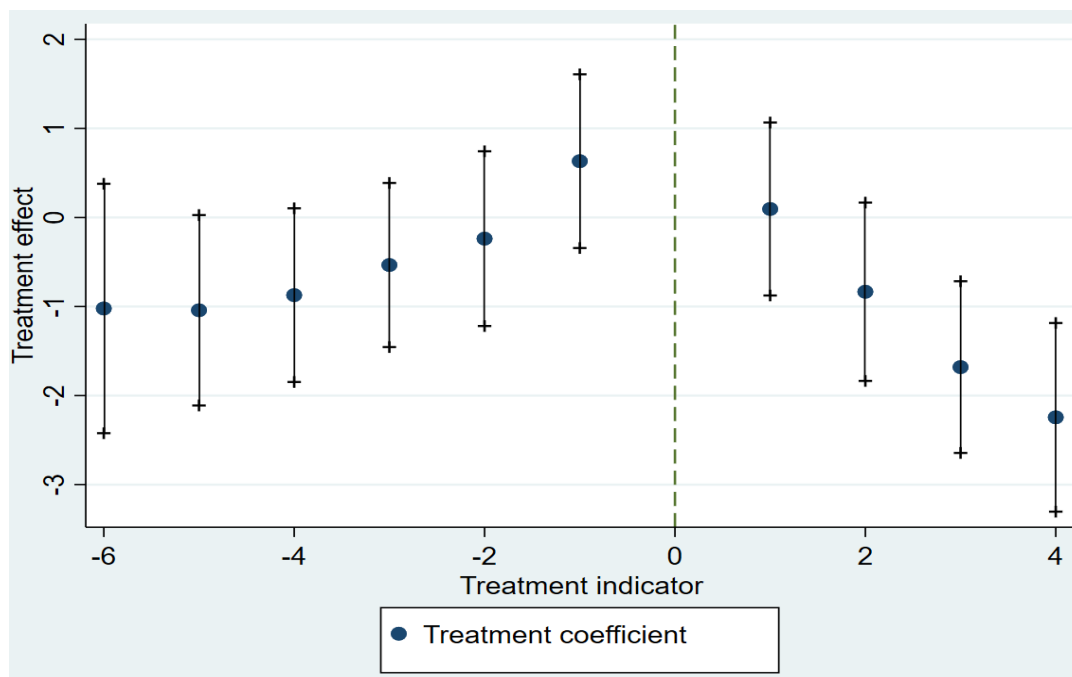

Figure D.4. Graphical representation of the treatment effects (ρ_t) in the pre-treatment period and treatment period for the female unemployment rate. The bars contain the 95% confidence intervals for these coefficients. the green dashed line indicates the reference point (2014).