# ERASMUS UNIVERSITY ROTTERDAM ERASMUS SCHOOL OF ECONOMICS MSc Economics & Business Master Specialization Economics of Markets and Organisations

# Foreign Women in European Employment Environments: An Empirical Analysis in Psychosocial Working Conditions

Author:	Merle Nikki Josette Raven
Student number:	449742
Thesis supervisors:	dr. Anne L. Boring
Second Reader:	dr. Josse Delfgaauw
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The views stated in this thesis are those of the author and not necessarily those of the supervisors, second assessor, Erasmus School of Economics or Erasmus University Rotterdam.

### Preface and Acknowledgements

I would like to take some time to thank Anne Boring for giving me the opportunity to write my Master Thesis under her supervision. Her enthusiasm about the field inspired me to write my master thesis about gender inequality at European workplaces. I am very grateful for her guidance. Her suggestions and feedback helped me to improve my research. Thank you, I highly appreciate it.

#### Abstract

Using data from the 5<sup>th</sup> and 6<sup>th</sup> wave of the European Working Conditions Survey from respectively 2010 and 2015, this research aims to resolve the question whether foreign female employees experience less favourable psychosocial working conditions in European countries. By performing several OLS regressions with three different dependent variables, being a dummy variable whether someone experienced violence, bullying, or sexual harassment in the past twelve months, a dummy variable indicating whether someone experienced discrimination in the past twelve months, and a dummy variable indicating whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the past month, this research finds that both women and foreigners experience less favourable working conditions compared to respectively men and non-foreigners. Moreover, this research provides empirical support that gender minority employees experience less favourable psychosocial working conditions. However, while this research does not find any empirical support that the effect of being a foreigner leads to more unfavourable psychosocial working conditions for female employees compared to male employees, it does find some empirical support that the effect of being a foreign woman is less favourable in countries with very traditional gender norms compared to countries with less traditional gender norms.

**Keywords:** Psychosocial Working Conditions, Harassment, Workplace Bullying, Discrimination, Europe

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#### 1 Introduction

Traditional gender norms refer to the idea that there is a segregation in work and family responsibilities between men and women. Countries with very traditional gender norms have the ideology that women should be more responsible for the family, while men should provide income for the household. Such gender norms might lead to less favourable working conditions for women at their workplace. Folke and Rickne (2020) show for example that women experience three times as much sexual harassment compared to men. This stems from the fact that sexual harassment is mostly a result of expressing gender norms and mostly results from the hierarchy between men and women. Moreover, Folke and Rickne (2020) also find empirical support that employees who are a gender minority are more likely to be sexually harassed, in which gender minority is defined as either being a female in a male-dominated workplace or a male in a female-dominated workplace. Foreign employees also seem to be more likely to experience unfavourable working conditions. Bergbom, Vartia-Vaananen and Kinnunen (2015) show for example that foreign employees are more likely to be bullied compared to native workers. This could be a result of the social identity theory, which states that people categorize other persons into social groups, treating their own group as the most favourable category (Tajfel, 1974). Based on those two observations, it is a plausible that foreign women have the highest likelihood of experiencing unfavourable working conditions.

This research will focus on gender differences in psychosocial working conditions, and this gap will be further analysed for foreign women. Therefore, the research question that will be answered in this research is: To what extent do foreign women experience less favourable psychosocial working conditions in Europe?

In this research, someone is defined as foreigner if either the respondent him-/herself or his/her parents are born outside the country he or she is currently working in. Psychosocial working conditions are defined as all working conditions which are related to the interaction between people and the prevailing culture in their workplace. This research will use three different indicators for psychosocial working conditions. The first one is whether someone experienced physical violence, sexual harassment or bullying in the last twelve months. The second one is an indicator whether someone was subject to discrimination linked to race, ethnic background or colour, discrimination based on sex, or discrimination linked to nationality in the last twelve months. The last one is an indicator whether someone experienced verbal abuse, unwanted sexual attention, or threats and humiliating behaviour in the last month.

Using the 5<sup>th</sup> and 6<sup>th</sup> wave of the European Working Conditions Survey from respectively 2010 and 2015, several different indicators on the psychosocial working conditions can be analysed from the perspective of the employee. Fagan and Burchell (2002), Burchell and Fagan (2004) and Schütte et al. (2014) are to my knowledge the only studies who also use data from the European Working Conditions Survey to study gender differences in working conditions. However, their approach differs significantly from the perspective of this research paper. The research of Burchell and Fagan (2004) only analyses the gender gap related to work intensity but does not further analyse the psychosocial working conditions or correlations with being native or foreigner. Moreover, Burchell and Fagan (2004) use data from 2000 and compare this with data from 1991 and 1996, while this research uses data from 2010 and 2015. Fagan and Burchell (2002) use the same data as Burchell and Fagan (2004) to identify trends in the data. Their results showed that gender patterns regarding working conditions remained quite stable over the 1990s. However, they did not include correlations related to being foreigner or native. The aim of the research of Schütte et al. (2014) also differs significantly from this research, as they aim to explore correlations between psychosocial working conditions and psychosocial wellbeing of European employees.

This research is socially relevant in a sense that it aims to detect correlations between psychosocial working conditions and both gender and origin. It explores psychosocial working conditions from the perspective of the employee, implying that this research analyses how foreign women experience their working conditions. Detecting differences in perceived working conditions between gender and origin is a first step which is essential to strive into the direction of equality at the workplace.

Based on several linear regression models, this research provides empirical support that both female and gender minority employees experience on average less favourable psychosocial working conditions compared to respectively male employees and gender nonminorities. Female and gender minority employees experienced on average respectively 1.5 and 3.2 percentage points more verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. Surprisingly, this research finds that the effect of being a gender minority is higher for male employees compared to female employees. A possible explanation could be that female employees are already at higher risk compared to male employees, resulting in the observation that the additional effect of being a gender minority is less pronounced for female employees. Additionally, this research finds that foreign employees experience more unfavourable psychosocial working conditions compared to natives. However, the effect of being a foreigner does not appear to be more pronounced for female employees compared to male employees. However, this might again be explained by the observation that female employees are already at higher risk compared to male employees, resulting in the observation that the additional effect of being a foreigner is less pronounced for female employees. Diving deeper into this effect of being a foreign female employee, it turns out that the effect of being a foreign female employee on experiencing psychosocial working conditions is higher in countries with very traditional gender norms.

The remaining structure of this research is as follows. In Section 2, the existing literature and their findings are described, resulting in the development of three hypotheses. In Section 3, the data coming from the European Working Conditions Survey is described, as well as the data cleaning process and the resulting descriptive statistics. In Section 4, the methodology to test the three hypotheses is described, which consists of several multiple linear regression models. Section 5 provides the corresponding results. Lastly, Section 6 summarizes the main findings, and concludes with some possible limitations of this research and recommendations for future research.

#### 2 Related Literature

#### 2.1 Working Conditions

Working conditions are referred to as all conditions which are related to the work environment and all aspects of the contract of employment of the employee. Firstly, this includes physical working conditions such as exposure to noise, safety, and physical lifting. Secondly, this includes mental working conditions such as boredom, monotony, and fatigue. Lastly, this includes psychosocial working conditions, such as stress, job control and relationships with colleagues. This research will only consider psychosocial working conditions of employees. Psychosocial working conditions in this research is defined as working conditions which refer to the interaction between people in a workplace and the workplace culture.

#### 2.2 Gender Differences in Working Conditions

Some previous literature studied gender differences in working conditions. Fagan and Burchell (2002) studied the European Working Conditions Survey (EWCS) from 2000 and compared those results to the surveys from 1991 and 1995. Their analysis shows that women are less likely to be exposed to physical hazards, to have planning responsibilities and to have high levels of job autonomy. Moreover, women are on average more likely to be lower paid, and more likely to have the feeling that the information provision in case of hazardous working situations is insufficient. Regarding psychosocial working conditions, Fagan and Burchell (2002) find that female employees are more likely to experience discrimination or intimidation at their workplace.

According to Fagan and Burchell (2002), there are two hypotheses which might explain gender differences regarding working conditions. On the one hand, the *gender segregated job hypothesis* predicts that the gender differences in working conditions are caused by a difference in selection into particular occupations. Despite the growing participation of women in the labour market and the narrowing of the gender gap in the last decades, there still exists a strong gender segregation regarding occupations, but also in sector, type of workplace, employment status and employment contract (Burchell et al., 2007). In general, women are overrepresented in the public sector and particular service sectors. Regarding occupations, women are overrepresented in jobs related to services, clerical support and jobs related to health, education, and family support such as teachers, nurses, and childcare. Next to this horizontal segregation into different occupations, there also exists vertical segregation, in a sense that women are in general underrepresented in higher-level and high-paid management roles and senior positions. These segregations might account for a significant part of the difference in working conditions between men and women (Fagan & Burchell, 2002).

Overall, the gender segregated job hypothesis would thus predict that working conditions are similar for women and men within a particular occupation. On the other hand, the *gender relations hypothesis* states that some of the gender differences in working conditions are due to gender inequality in society. While this hypothesis would still assume gender segregation in the labour market, it also assumes that gender differences might still be present within occupations, such as differences in earnings or exposure to harassment and intimidation. Fagan and Burchell (2002) had a closer look at this distinction and showed that both hypotheses are relevant for understanding the differences in working conditions between male and female employees. Important to note, however, is that Fagan and Burchell (2002) consider all physical, mental, and psychosocial working conditions.

A second research which shows gender differences in psychosocial working conditions is the research of Folke and Rickne (2020). They provide empirical support that women experience three times as much sexual harassment compared to men. This stems from the fact that sexual harassment is mostly a result of expressing gender norms and mostly results from the hierarchy between men and women. They show that female employees are in general at higher risk, as sexual harassment rates are higher for women in gender-mixed and maledominated workplaces, while harassment rates are higher for men in female-dominated workplaces. Their results thus show that gender minorities are at higher risk of experiencing less favourable psychosocial working conditions. Moreover, Folke and Rickne (2020) show that sexual harassment at the workplaces reinforces the gender segregation and pay inequality in the labour market, as female employees shift back to lower-paid female-dominated workplaces.

Bursztyn, González and Yanagizawa-Drott (2020) also explain how self-selection might enhance gender segregation. They show that *pluralistic ignorance*, as mentioned by Katz, Allport, and Jenness (1931), plays a role in the Saudi society. It refers to a situation in which people act against their own opinion, as they believe that others have a contradicting opinion and fear for social sanctions. If the majority behaves in this way, they incorrectly end up in a situation where they believe that almost everyone else has this opposite view. Bursztyn et al. (2020) show that this phenomenon holds for the opinion whether women should work outside home in Saudi Arabia. Summarizing, their research shows that women self-select according to general gender norms. Based on the results of Fagan and Burchell (2002) that female employees are more likely to experience discrimination and intimidation at their workplace, as well as the results of Folke and Rickne (2020), who show that employees who are a gender minority are at higher risk of being sexually harassed at their workplace, the first hypothesis is formulated:

Hypothesis 1: Both female and gender minority employees experience less favourable psychosocial working conditions compared to respectively male and gender non-minority employees.

#### 2.3 Differences in Working Conditions between Foreigners and Non-foreigners

In this study, foreigners are referred to as all people who are either themselves born outside the country they are currently working in, or people whose parents are born outside the country in which the respondent is currently working in. There are two theories which predict that foreigners are more likely to be unfavourably treated at their workplace compared to natives. The first theory is the *social identity theory*, which predicts that people classify themselves and other people into different social categories based on characteristics which are easily noticeable, like gender or ethnicity (Tajfel, 1974). In general, people perceive their category as the most favourable category, while other categories are seen as less favourable. Immigrants are more likely to be classified into such an out-group category due to noticeable reasons like their appearance and their foreign accent, making them more likely to be a victim of bullying and social exclusion.

The *social interactionist approach* might give another explanation for immigrants being at higher risk of being bullied (Felson, 1992). This theory is based on the premise that violations of common rules and social norms might lead to aggressive behaviour against those violators. Immigrants are in general more likely to violate the general social norms and rules, as their social behaviour is mostly in accordance with their own culture. Therefore, dissimilarities between cultures might be a significant determinant of conflicts and misunderstandings, leading to more aggressive behaviour against immigrants.

Bergbom, Vartia-Vaananen and Kinnunen (2015) studied both theories by using a crosssectional survey in a transport company in Finland and found empirical support in favour of both hypotheses. Their results showed that immigrants are more likely to be bullied at work compared to natives, which is in line with the predictions of the social identity theory. Moreover, dividing immigrants into groups of culturally most, intermediate, and least distant from the natives' culture, their results suggest that the risk of being bullied becomes larger when the distance from the natives' culture becomes more apparent. Regarding the intermediate distance group of immigrants, the risk of being bullied was nearly three times higher than the risk of natives, while the risk for the most culturally distance group was eight times higher compared to natives. The type of bullying which is most common turns out to be social exclusion.

Based on the results of Bergbom et al. (2015), the second hypothesis is formulated as follows:

Hypothesis 2: Foreigners experience less favourable psychosocial working conditions compared to natives, and the effect of being a foreigner is more pronounced for female employees compared to male employees.

#### 2.4 Gender Norms

Gender norms are the spoken and unspoken rules on how men and women are expected to behave, act, look, feel, and think in society (Weber et al., 2019). Those gender norms are strengthened but also challenged in daily life, for example at someone's home, school, sports club, workplace and in the media. Such gender norms can be very powerful in someone's life, as deviating from these gender norms can lead to censure from society, which might in turn induce social exclusion, harassment, or violence (Fleming & Agnew-Brune, 2015).

Relating gender norms to labour markets, gender norms imply that some occupations are typical male jobs, while others are highly appropriate for women. These gender norms might increase the gender segregation in the labour market (Eagly & Karau, 2002). Despite an increase in women's participation in the labour market, there still exists a strong gender division regarding employment and domestic responsibilities (Burchell, Fagan, O'Brien & Smith, 2007). Data from Eurostat (2003) show that women account for most tasks in the household, childcare, and eldercare. This is in line with the results of Burchell et al. (2007), who show that in relationships in which both persons are employed, it is mostly the man who works full-time and the woman who has a part-time job. Their results also show that there is a difference in female employment in western European countries compared to central and eastern European countries. In eastern and central European countries, women's employment rates are relatively low due to economic recessions and slow recovery. According to Burchell et al. (2007), the smallest gender gaps in employment rates are in Finland, Sweden, Estonia and Lithuania, and the biggest gender differences are in Malta, Greece, Italy, and Spain.

In summary, countries with very traditional gender norms refer to countries in which there is a strong gender segregation. In these countries, people might react more aggressively to deviations from the prevailing gender norms. Based on the previous literature, the third hypothesis will explore whether the effect of being a foreign woman is even more pronounced in countries with very traditional gender norms, resulting in the following hypothesis: Hypothesis 3: The effect of being a foreign female employee on psychosocial working conditions is more unfavourable in countries with very traditional gender norms.

#### **3** Data

#### 3.1 Data Source

The data used in this research comes from the 5<sup>th</sup> and 6<sup>th</sup> European Working Conditions Survey from respectively 2010 and 2015. The first EWCS had been conducted in 1990 – 1991 and has been evolving since then. The survey collects data on the working conditions and wellbeing of European employees in several European countries. Table 3.1 shows that 34 and 35 countries were included in the survey of respectively the 5<sup>th</sup> and 6<sup>th</sup> wave. The respondents who took part in the survey were all randomly selected. The interviews took place at the respondents' homes and the collected data are strictly anonymous. Since the data source is a survey, all data is self-reported by the respondents. This means that it is important to note that there exists selflabelling in this dataset. While the survey is designed very carefully to restore validity and measurability, the self-reported nature of this design must be considered while interpreting the results.

#### 3.2 Data Cleaning

Firstly, the two datasets from the 5<sup>th</sup> and 6<sup>th</sup> wave are merged into one dataset. Since the two surveys are not identical to each other, some adjustments had to be made to combine the datasets. For example, regarding the question "Over the last month, during the course of your work have you been subjected to any of the following?", the survey from 2015 differentiates between verbal abuse, unwanted sexual attention, threats, and humiliating behaviour, while the last two categories are combined into one category in the survey from 2010. Therefore, the two separate categories in the survey from 2015 are combined into one category to match the survey design from 2010. Moreover, the education categories are also not identical in the two surveys. Both are based on the International Standard Classification of Education (ISCED), however, the 6<sup>th</sup> wave survey contained one additional category. Also, the bachelor and master category to perfectly match the 5<sup>th</sup> wave survey. Lastly, an extra variable has been created to indicate the year of the survey, being either 2010 or 2015.

Secondly, a few steps are taken to clean the combined dataset. Since this paper aims to analyse employees' working conditions, only employees are considered. This means that self-employed workers are excluded. Moreover, since the dataset contains a survey, some people did not respond to some of the questions, or responded with "not applicable", "don't know" or "refusal". Respondents who chose one of these categories regarding the variables used in this

Year	Wave	Number of countries	Countries
2010	5 <sup>th</sup> EWCS	34	EU Member States and
			Norway, Albania, North
			Macedonia, Turkey,
			Montenegro
			Croatia, and Kosovo
2015	6 <sup>th</sup> EWCS	35	EU Member States and
			Norway, Switzerland,
			Albania, North
			Macedonia,
			Montenegro, Serbia and
			Turkey

**Table 3.1** The 5<sup>th</sup> and 6<sup>th</sup> wave of the EWCS including the corresponding countries which participated in the survey

research are excluded from the sample. Moreover, a dummy variable is created indicating whether the gender of the respondent is female, as well as a dummy indicating whether the respondent is a foreigner. The 6<sup>th</sup> wave survey contains two questions regarding whether both him-/herself and his/her parents are born in the country the respondent is currently working in, and whether the respondent is born in the country they are currently working in. However, the 5<sup>th</sup> wave survey only contains the first question whether both him-/herself and his/her parents are born in the country they are currently working in. However, the 5<sup>th</sup> wave survey only contains the first question whether both him-/herself and his/her parents are considered foreigners in this research if they answered 'no' to this particular question. This implies that a respondent is considered to be a foreigner if either him-/herself or his parents are born outside the country in which the respondent is currently working. All other respondents are considered natives. Moreover, a dummy variable *gender minority* has been created. This variable takes value 1 when the respondent is a woman and reported that the majority of other employees at their workplace is male, and when the respondent is a man and reported that the majority of employees at their workplace is female. In all other cases, the variable takes on value 0.

To explore their psychosocial working conditions, the answers to several survey questions about their workplace will be used. These questions were formulated in the survey as follows: "And over the past 12 months, during the course of your work have you been subjected to any of the following?". One dummy variable is created to indicate whether someone experienced physical violence, sexual harassment or bullying/harassment over the last twelve months at their workplace. Secondly, another dummy variable is created to indicate whether someone experienced discrimination linked to race, ethnic background or colour, discrimination based on sex, or discrimination linked to nationality over the last twelve months at their workplace. Lastly, a dummy variable is created to indicate whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviours over the last month at their workplace. This question was formulated as follows: "And over the last month, during the course of your work have you been subjected to any of the following?".

Moreover, the variable *earnings* has been created based on the self-reported net monthly earnings from their main paid job. If a respondent did not know his/her net monthly earnings or refused to answer this question, a second question was asked which asked the respondent to indicate an approximate range instead. In case a respondent indicated this range, the average of this range is taken as their net monthly earnings. Afterwards, the natural logarithm has been taken to create the variable *earnings*.<sup>1</sup> Lastly, the data is cleaned in such a way that all variables are given in the same direction. After those adjustment, the final data sample contains 55,534 observations.

As described in Section 2.4, the third hypothesis aims to test whether the effect of being a foreign woman differs between countries with very and less traditional gender norms. Therefore, a distinguishment is made between countries which are defined as very traditional countries and countries which are more egalitarian. For both the 5<sup>th</sup> and 6<sup>th</sup> wave of the EWCS, the division of countries into the category very traditional or less traditional is based on the 4<sup>th</sup> wave from European Values Study (EVS), which is from the years 2008-2010 (EVS, 2008). The 4<sup>th</sup> wave of the EVS contains among other things the following statement: "A pre-school child is likely to suffer if his or her mother works", and respondents could answer from strongly agree (category 1) to strongly disagree (category 4). Table C.1 shows the mean value of this answer per country. Afterwards, a dummy variable is created, which takes on value 1 if a country is defined to be very traditional, and 0 otherwise. A country is defined to be very traditional if their mean value is below the average of all country values, which means that a country is defined to be traditional if their country's mean value is below 2.47.

The use of one wave of the EVS for both survey years of the EWCS can be justified based on the trend that the ranking of countries remains rather stable over time. Boring and Moroni (2022) show that, while there is an overall trend of countries becoming less traditional, the ranking of countries does not change much over time. They showed this, among other things, explicit for the statement "When a mother works for pay, the children suffer", which is almost identical to the statement used in this research to rank the countries.

<sup>&</sup>lt;sup>1</sup> The natural logarithm is calculated by taking the logarithm of one plus the net monthly earnings of the respondent.

Panel A: Categorical va	ariables		
Variable	Category	Frequency	Percentage
Female	Yes	28,775	51.82
Foreigner	Yes	7,624	13.73
Foreign female	Yes	3,961	7.13
Gender minority	Yes	4,677	8.42
Violence	Yes	1,086	1.96
Sexual harassment	Yes	1,547	2.79
Bullying	Yes	1,693	3.05
Violence, sexual	Yes	3,687	6.64
harassment, or			
bullying			
Discrimination based	Yes	907	1.63
on race			
Discrimination based	Yes	966	1.74
on nationality			
Discrimination based	Yes	1,104	1.99
on gender			
Discrimination	Yes	2,194	3.95
Verbal abuse in the	Yes	6,438	11.59
last month			
Unwanted sexual	Yes	1,027	1.85
attention in the last			
month			
Threats or humiliating	Yes	4,097	7.38
behaviour in the last			
month			
Verbal abuse,	Yes	8,101	14.59
unwanted sexual			
attention, or			
threats/humiliating			
behaviour			
Female boss	Yes	18,267	32.89
Number of employees	1	1,660	2.99
	2-9	15,318	27.58
	10-249	30,683	55.25
	250+	7,873	14.18
Gender of employees	Mostly men	19,931	35.89
with same job title	Mostly women	19,742	35.55
J	Approximately equal number of men	11,119	20.02
	and women	-	
	Nobody else has the same job title	4,742	8.54
Occupation	Armed forces occupations	266	0.48
_	Managers	2,686	4.84

**Table 3.2** Descriptive statistics regarding the main variables of interest, the dependent variables and control variables

	Pı	rofessionals			10,07	7	18.15
	Te	echnicians	and	associate	7,790		14.03
	pr	ofessionals					
	C	lerical suppor	rt workers		5,817		10.47
	Se	ervice and sal	es workers		11,68	4	21.04
	Sl	killed agricul	tural, foresti	y and fish	486		0.88
	C	raft and relate	ed trades wo	orkers	6,556		11.81
	Pl	lant and mach	ine operato	rs	4,496		8.10
	El	lementary oc	cupations		5,676		10.22
Education	Ea	arly childhoo	d education		190		0.34
	Pı	rimary educat	tion		2,148		3.87
	L	ower seconda	ry education	n	8,850		15.94
	U	pper seconda	ry education	1	22,893		41.22
	Po	ost-secondary	education	non tertiary	3,362		6.05
	ec	lucation					
	Sl	hort-cycle ter	tiary educat	ion	2,950		5.31
	Fi	irst stage terti	ary education	on	14,67	7	26.43
	Se	econd stage to	ertiary education	ation	464		0.84
Year	20	010			26,77	5	48.21
	20	015			28,75	9	51.79
Traditional	Y	es			22,13	9	39.87
	Ν	0			33,39	5	60.13
Panel B: Contin	uous varial	bles					
Variable	Obs.	Mean	Median	Std D	ev.	Min	Max
Age	55,534	41.54	42	11.97		15	91
Earnings	55,534	4,009.22	1,150	15,50	6.63	1	1,600,000

Panel A contains the descriptive statistics of the categorical variables. Panel B contains the descriptive statistics regarding the continuous variables.

#### **3.2 Descriptive Statistics**

Table 3.2 shows that about half of the respondents in the final sample is female, and the other half is male. 13.73 percent of the respondents are labelled as foreigner. Moreover, only 7.13 percent of the whole sample are foreign female. The variable *gender minority* shows that only 8.42 of the employees is a minority at their workplace. The variables regarding physical violence, sexual harassment, and bullying are indicators over the past twelve months. The same yields for the variables indicating discrimination regarding race, nationality, or gender. As Table 3.2 shows, those kinds of negative psychosocial working conditions are only present for a very small subset of the sample. The other three variables regarding verbal abuse, unwanted sexual attention and threats/humiliating behaviour are indicators over the last month. While unwanted sexual attention and threats/humiliating behaviour are only present for a small subsample, verbal abuse tends to be more common, with a percentage equal to 11.59.

	tuble die Mean of psychosocial working conditions for mare and remain employees						
	Female	Male	p-value				
One year	0.076	0.056	0.000				
Discrimination	0.045	0.033	0.000				
Last month	0.159	0.132	0.000				

Table 3.3 Mean of psychosocial working conditions for male and female employees

The variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discrimination* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. The last column shows the p-value of a two-sample t-test with unequal variances testing the statistical difference between the two groups.

The first control variable is *female boss*, which takes the value 1 in case if the direct boss of the employee is female. As can be seen in Table 3.2, a great majority of the bosses is male. The second control variable is the gender of the other employees. This variable indicates whether the gender of colleagues with the same job title as the respondent are mostly men, women, or equally divided. Approximately 20 percent reported to work at a gender-mixed workplace, while approximately 35 percent reported to work at a male-dominated workplace and 35 percent reported to work at a female-dominated workplace. The occupations are based on the International Standard Classification of Occupations (ISCO-08). While the variable is quite scattered, it can be seen that professionals and service and sales workers are the most represented. Education corresponds to the highest level of education. Upper secondary education is most common in this sample, followed by first stage tertiary education. Early childhood education and second stage tertiary education are the least common categories. The variable age indicates the age of the respondent at the moment of the survey. The variable is quite divided, ranging from 15 years up until 91 years. The variable earnings corresponds to the net monthly earnings from their main paid job, and ranges from 1 euro monthly earnings up until 1.6 million euros. To restore reliability, the variable is transformed into a natural logarithm.

Table 3.3 shows the descriptive statistics of male and female employees regarding their psychosocial working conditions. Notable is that for all three indicators of psychosocial working conditions, female employees experienced more violence, sexual harassment, or bullying, and more discrimination over the past twelve months, as well as more verbal abuse, unwanted sexual attention, and threats/humiliating behaviour in the previous month, and the differences between females and males is highly statistically significant. Table A.1 and Table A.2 also show highly significant differences between gender minorities and gender non-

minorities, as well as foreigners and non-foreigners. The results show that the average rates are always higher for gender minority and foreign employees.

#### 4 Methodology

#### 4.1 Ordinary Least Squares Regressions

To analyse the first hypothesis, whether women experience less favourable psychosocial working conditions compared to men and whether this also yields for gender minorities, several Ordinary Least Squares (OLS) regression models are performed. A dummy variable indicating whether the employee is female will be used as the main variable of interest, as well as a dummy variable indicating whether someone is a gender minority at their workplace. Moreover, an interaction term between *female* and *gender minority* will be included in the regression. Three different dependent variables are used in separate regressions to analyse their psychosocial working conditions. These include a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months, a dummy variable indicating whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. Lastly, several control variables are included. The first regression will look as follows:

Psychosocial working conditions variable =  $\beta_0 + \beta_1$  female +  $\beta_2$  gender minority +  $\beta_3$  female \* gender minority +  $\beta_4$  female boss +  $\beta_5$  number of employees +  $\beta_6$  age +  $\beta_7$  age<sup>2</sup> +  $\beta_8$  education +  $\beta_9$  ln earnings +  $\delta$  +  $\theta$  +  $\varepsilon$  (1)

in which female boss, the number of employees, age,  $age^2$ , education and the natural logarithm of earnings are used as control variables,  $\delta$  are occupation fixed effects and  $\theta$  are year fixed effects, and  $\varepsilon$  is the error term.

To test the second hypothesis, whether foreigners experience less favourable psychosocial working conditions compared to natives and whether the effect of being a foreigner is most pronounced for foreign female, several OLS regressions will be performed with the same dependent variables as mentioned for regression (1). The main variable of interest in this regression is *foreigner*. Moreover, an interaction term between *foreigner* and *female* will be used to test whether the effect of being a foreigner is more pronounced for female employees. Lastly, the same control variables are used as in regression (1). The second regression will look as follows:

Psychosocial working conditions variable =  $\beta_0 + \beta_1$  female +  $\beta_2$  foreigner +  $\beta_3$  female \* foreigner +  $\beta_4$  gender minority +  $\beta_5$  female boss +  $\beta_6$  number of employees +  $\beta_7$  age +  $\beta_8$  age<sup>2</sup> +  $\beta_9$  education +  $\beta_{10}$  ln earnings +  $\delta$  +  $\theta$  +  $\varepsilon$  (2) in which the remaining variables are similar to the variables used in equation (1).

The third hypothesis aims to test whether the expected effect of being a foreign woman is more pronounced in countries with very traditional gender norms. Therefore, a dummy variable is included which takes on value 1 if a country has very traditional gender norms. The main variable of interest will be an interaction term between *female*, *foreigner*, and *traditional*. As explained in Section 3.2, a country is defined to be very traditional if their mean value is below the average of all country values. The regression will include the same control variables as regression (1) and (2). The third regression will look as follows:

Psychosocial working conditions variable =  $\beta_0 + \beta_1$  female +  $\beta_2$  foreigner +  $\beta_3$  traditional countries +  $\beta_4$  female \* foreigner +  $\beta_5$  female \* traditional +  $\beta_6$  foreigner \* traditional +  $\beta_7$ female \* foreigner \* traditional +  $\beta_8$  gender minority +  $\beta_9$  female boss +  $\beta_{10}$  number of employees +  $\beta_{11}$  age +  $\beta_{12}$  age<sup>2</sup> +  $\beta_{13}$  education +  $\beta_{14}$  ln earnings +  $\delta$  +  $\theta$  +  $\varepsilon$  (3)

in which the remaining variables are similar to the variables from regression (1).

#### 4.2 Alternative Specifications

Foreigner is defined as someone who him-/herself or his/her parents are born outside the country they are currently working in, since the 5<sup>th</sup> wave of the EWCS does not include a separate question asking about the origin from the respondent. However, the 6<sup>th</sup> wave of the EWCS does include this additional question, asking whether the respondent is born in the country he/she is currently working in. Therefore, as a robustness test, only the 6<sup>th</sup> wave of the EWCS is used in order to adjust the definition of foreigner into being a foreigner if and only if the employee him-/herself is born outside the country he/she is currently working in. Therefore, regression (2) is performed with this renewed definition of foreigner. The number of observations has dropped to 28,757, due to excluding the 5<sup>th</sup> wave of the EWCS and due to some missing values regarding the question whether the respondent is born outside the country they are currently working in.

As a second robustness test, the definition of traditional countries is adjusted. Rather than splitting up the whole sample into two groups, only the 25 percent most traditional countries and the 25 least traditional countries are considered. In this way, countries which are just below or above the benchmark and which might be considered mediocre are left out of the comparison between traditional and non-traditional countries. Therefore, regression (3) is performed with this adjusted definition, and the number of observations has dropped to 31,413.

Lastly, as a final robustness test, all three hypotheses are tested using binary logistic regression models, rather than OLS regressions. Since all dependent variables are binary

variables which only take on value 1 or 0, a binary logistic regression model is an appropriate estimation method.

#### 5 Results

#### 5.1 Gender Differences in Psychosocial Working Conditions

Table 5.1 shows the regression results testing the relationship between psychosocial working conditions and female employees as well as gender minorities. All regression coefficients of *female* are positive and highly statistically significant, implying that female employees experienced on average both more violence, bullying, or sexual harassment and discrimination in the past twelve months, as well as verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. According to regression (4), for example, female employees experienced on average 1.3 percentage points more discrimination compared to male employees. These results are in line with the results of Schütte et al. (2014), who also reported that female employees experienced on average more sexual harassment, bullying and discrimination.

Moreover, the regression coefficients on *gender minority* are positive and highly significant. This means that on average, employees who are a gender minority at their workplace experienced less positive psychosocial working conditions. For example, looking at regression (2), employees who are a gender minority at their workplace experienced on average 1.8 percentage points more violence, bullying, or sexual harassment in the last twelve months at their workplace compared to employees who are not a gender minority. These results are in line with the results of Folke and Rickne (2020), who shows that gender minorities are at higher risk of experiencing more sexual harassment. Both results regarding female and gender minority employees are in line with the predictions of the first hypothesis.

Notable however is the negative coefficient in regression (2) and (6) on the interaction term between *female* and *gender minority*. While the coefficient in regression (2) is not statistically significant, the coefficient in regression (6) is highly significant. The interaction term indicates that the effect of being a gender minority is higher for male employees compared to female employees. The graphic representation of the interaction terms in regression (2), (4) and (6) are given in respectively Figure 5.1, Figure 5.2 and Figure 5.3. Figure 5.1 and Figure 5.3 clearly show that the effect of being a gender minority is less steep for female employees. A possible explanation could be that the dependent variables are all variables indicating whether or not someone experienced these negative psychosocial working conditions, rather than variables indicating to what extent the employees experienced them. Since female employees are in the first place more likely to experience unfavourable psychosocial working conditions, the effect

Variables	Psychosocial working conditions					
	(1)	(2)	(3)	(4)	(5)	(6)
	One year	One year	Discr	Discr	Last month	Last month
Female	0.019***	0.012***	0.012***	0.013***	0.027***	0.015***
	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.004)
Gender minority	0.017***	0.018***	0.042***	0.023***	0.020***	0.032***
	(0.004)	(0.006)	(0.004)	(0.005)	(0.006)	(0.009)
Gender minority x		-0.010		0.035***		-0.034***
female		(0.008)		(0.008)		(0.016)
Female boss		0.008***		-0.009***		0.015***
		(0.003)		(0.002)		(0.004)
Number of		0.023***		0.006***		0.026***
employees		(0.002)		(0.001)		(0.002)
Age		0.003***		0.000		0.003***
		(0.001)		(0.000)		(0.001)
Age <sup>2</sup>		-0.000***		-0.000***		-0.000***
		(0.000)		(0.000)		(0.000)
Education		0.003***		0.002**		0.005***
		(0.001)		(0.001)		(0.001)
Ln Earnings		0.007***		0.003***		0.005***
		(0.001)		(0.001)		(0.001)
Intercept	0.055***	-0.134***	0.030***	-0.014	0.130***	-0.083***
	(0.001)	(0.021)	(0.001)	(0.015)	(0.002)	(0.028)
Obs.	55,534	55,534	55,534	55,534	55,534	55,534
R-squared	0.002	0.014	0.005	0.010	0.002	0.016
Occupation fixed	NO	YES	NO	YES	NO	YES
effects						
Year fixed effects	NO	YES	NO	YES	NO	YES

**Table 5.1** OLS regressions testing the relationship between psychosocial working conditions variables

 and female employees

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month.

of being a gender minority might be tempered for female employees. These results are in line with the results of Folke and Rickne (2020). They show that women are in general at higher risk to experience sexual harassment, as they have higher harassment rates in both male-dominated and gender-mixed workplaces. while male employees only have higher harassment rates in female-dominated workplaces. Moreover, it can be clearly seen in Figure 5.1 that violence, bullying, or sexual harassment rates are higher for women compared to men both



**Figure 5.1** Graphic representation of the effect of gender minority on the perception of violence, bullying, or sexual harassment for male and female employees



**Figure 5.3** Graphic representation of the effect of gender minority on the perception of verbal abuse, unwanted sexual attention, or threats/humiliating behaviour for male and female employees



**Figure 5.2** Graphic representation of the effect of gender minority on the perception of discrimination for male and female employees

when they are a minority and when they are not. Surprisingly, Figure 5.3 shows that the linear prediction for females is slightly decreasing, implying that the rates of verbal abuse, unwanted sexual attention, or threats/humiliating behaviour for female employees is slightly lower when they are a gender minority. This result suggests that in a female dominated workplace, there exists more verbal abuse, unwanted sexual attention, or threats/humiliating behaviour than in male-dominated workplaces, since these rates are both higher for women in female-dominated places as men in female-dominated places, compared to their counterpart male-dominated places. To further analyse which psychosocial working conditions are driving these results, Table B.1 shows the regression results separately for verbal abuse, unwanted sexual attention, and threats/humiliating behaviour. It can be clearly seen that the coefficient on the interaction term between *female* and *gender minority* is only significant in the regression with verbal abuse as dependent variable. This suggests that the negative coefficient on the interaction term in regression (6) in Table 5.1 is mainly driven by verbal abuse.

However, it is notable that regarding discrimination in regression (4), the coefficient is positive and significant. This implies that the effect of being a gender minority on discrimination rates is higher for female employees compared to male employees, as shown in Figure 5.2. This result is in line with the expectation that being both female and a gender minority increases the probability of being discriminated.

A second notable observation is the positive and highly significant coefficient on *female boss* in regression (2) and (6), while the coefficient is negative and significant in regression (4). This indicates that while employees who have a female boss experience on average less discrimination, they did on the other hand experience more violence, bullying, or sexual harassment in the last twelve months as well as more verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the past month. Table B.1 separates between the last three categories and shows that the coefficient on *female boss* in regression (6) is mainly driven by verbal abuse and threats/humiliating behaviour. The coefficient on *female boss* in regression (2) from Table B.1 is non-significant, implying that employees who have a female boss. Table B.2 separates between violence, bullying and sexual harassment, and shows that violence is the main driver of these results.

A possible explanation on the positive and significant coefficients of female boss in regression (2) and (6) of Table 5.1 could be in line with to the so-called Queen Bee effect. This phenomenon argues that female leaders in organizations in which most executive positions are held by men reinforce the gender segregation rather than challenging it, and that female leaders

even adjust their personal leadership style to male leadership styles (Ellemers, Rink, Derks, & Ryan, 2012). In line with this, female bosses might consciously or not take their personal experiences regarding psychosocial working conditions into account when developing their own leadership style. Their current position of power in combination with their past unfavourable experiences with psychosocial working conditions might lead to a harsher leadership style. As the coefficient is positive and significant, it suggests that rates of violence, bullying, or sexual harassment as well as verbal abuse or threats/humiliating are even higher when employees have female bosses compared to male bosses. This could be an indication of overcompensating behaviour. As the coefficient on *female boss* is negative and significant in regression (4), it suggests that female bosses do not differentiate between employees with respect to their leadership style.

#### 5.2 Psychosocial Working Conditions for Foreign Women

Table 5.2 shows the regression results of the relationship between psychosocial working conditions and foreign employees. The coefficients on *foreigner* are positive and highly significant in all regression models, implying that foreign employees experience on average less favourable psychosocial working conditions compared to natives. Regression (4) for example shows that foreign employees experienced on average 8 percentage points more discrimination in the past twelve months compared to native employees. These results are both in line with the second hypothesis and in line with the results of Bergbom et al. (2015), who showed that foreign employees are more likely to be bullied.

However, the interaction term *foreigner x female* has only negative coefficients, and is significant in regression (3), (4), (5) and (6). These results indicate that the effect of being a foreigner is less pronounced for female employees compared to male employees. While the regression results show that foreign employees experienced less favourable working conditions compared to natives in line with the second hypothesis, the expectation that this effect would be higher for female employees appears not to be true. An explanation could be that the dependent variables are a dummy variable indicating whether someone experienced discrimination in the last twelve months and whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the past month, rather than a variable indicating to what extent someone experienced these working conditions. As female employees turn out to be more likely to experience unfavourable psychosocial working conditions, it is plausible that being a foreigner does not change much for female employees,

Variables	Psychosocial working conditions					
	(1)	(2)	(3)	(4)	(5)	(6)
	One year	One year	Discr	Discr	Last month	Last month
Female	0.020***	0.011***	0.014***	0.020***	0.030***	0.014***
	(0.002)	(0.003)	(0.002)	(0.002)	(0.003)	(0.004)
Foreigner	0.029***	0.027***	0.082***	0.080***	0.038***	0.036***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)
Foreigner x female	-0.002	-0.001	-0.018**	-0.018**	-0.022**	-0.021**
	(0.007)	(0.007)	(0.007)	(0.007)	(0.009)	(0.009)
Gender minority	0.017***	0.012***	0.042***	0.041***	0.020***	0.014**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.006)
Female boss		0.009***		-0.012***		0.018***
		(0.003)		(0.002)		(0.004)
Number of		0.022***		0.006***		0.025***
employees		(0.002)		(0.001)		(0.002)
Age		0.003***		0.000		0.003***
		(0.001)		(0.000)		(0.001)
Age <sup>2</sup>		-0.000***		-0.000**		-0.000***
		(0.000)		(0.000)		(0.000)
Education		0.003***		0.001*		0.005***
		(0.001)		(0.001)		(0.001)
Ln Earnings		0.007***		0.002***		0.004***
		(0.001)		(0.001)		(0.001)
Intercept	0.051***	-0.132***	0.019***	-0.012	0.125***	-0.082***
	(0.001)	(0.021)	(0.001)	(0.015)	(0.002)	(0.028)
Obs.	55,534	55,534	55,534	55,534	55,534	55,534
R-squared	0.003	0.015	0.021	0.025	0.003	0.016
Occupation fixed effects	NO	YES	NO	YES	NO	YES
Year fixed effects	NO	YES	NO	YES	NO	YES

**Table 5.2** OLS regressions testing the relationship between psychosocial working conditions variables

 and foreign female employees

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month.

while the effect of being a foreigner compared to being native for male employees might change the likelihood of experiencing unfavourable psychosocial working conditions substantially. Figure 5.4 shows this very clearly. While the discrimination rates for foreign women and foreign men do not differ much, the discrimination rates for native women and men differ substantially. Figure 5.5 even shows that being a foreigner as a male employee leads to higher



**Figure 5.4** Graphic representation of the effect of foreigner on the perception of discrimination for male and female employees



**Figure 5.5** Graphic representation of the effect of foreigner on the perception of verbal abuse, unwanted sexual attention, or threats/humiliating behaviour for male and female employee

rates of verbal abuse, unwanted sexual attention, or threats/humiliating behaviour compared to foreign female employees. These results are not in line with the second hypothesis.

## 5.3 Differences in Psychosocial Working Conditions between more and less Traditional Countries

Table 5.3 shows the regression results testing whether the effect of being a foreign woman differs among countries with very and less traditional gender norms. Remarkable are the regression coefficients on *traditional*, which are negative in regression (1), (2), (5), and (6), while they are positive in regression (3) and (4). This indicates, according to regression (3) and (4), that in countries with very traditional gender norms the perceived discrimination rates are 0.4 percentage points higher than in countries with less traditional gender norms, which is a relatively small difference. Moreover, according to regression (1) and (5), violence, bullying, or sexual harassment rates and verbal abuse, unwanted sexual attention, or threats/humiliating behaviour rates are respectively 0.8 percentage points and 1.8 percentage points lower in countries with very traditional gender norms. Those differences. While employees in traditional countries are used to certain behaviour and do not label this behaviour as, for example, bullying or sexual harassment, employees in less traditional countries might on the other hand label this as such behaviour.

A second explanation could be that gender segregation is bigger in these countries, leading to less interactions between female and male employees, which also lowers the probability of experiencing gender differences in psychosocial working conditions. This could also possibly explain the negative coefficient of the interaction term between *female* and *traditional*.

However, the main variable of interest is the interaction term between *female*, *foreigner*, and *traditional*. This interaction term is positive in all six regression models, and significant in regression (2), (5) and (6). These results indicate that the effect of being a foreign female employee on their psychosocial working conditions is on average less favourable in countries with very traditional gender norms compared to countries which are more egalitarian. However, since the interaction term is only significant in three out of six regression models, this research only provides weakly empirical support in favour of the third hypothesis.

Variables	Psychosocial working conditions					
	(1)	(2)	(3)	(4)	(5)	(6)
	One year	One year	Discr	Discr	Last month	Last month
Female	0.027***	0.018***	0.018***	0.024***	0.040***	0.024***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.004)	(0.005)
Foreigner	0.031***	0.028***	0.082***	0.079***	0.035***	0.030***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.008)
Traditional	-0.008***	-0.004	0.004**	0.004**	-0.018***	-0.014***
	(0.003)	(0.003)	(0.002)	(0.002)	(0.004)	(0.004)
Foreigner x female	-0.011	-0.010	-0.022**	-0.022**	-0.036***	-0.035***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.019)	(0.012)
Female x	-0.018***	-0.018***	-0.009***	-0.010***	-0.026***	-0.026***
traditional	(0.004)	(0.004)	(0.003)	(0.003)	(0.006)	(0.006)
Foreigner x	-0.005	-0.002	0.000	0.003	0.005	0.014
traditional	(0.010)	(0.010)	(0.011)	(0.011)	(0.013)	(0.013)
Foreigner x female	0.022	0.023*	0.010	0.011	0.036*	0.037**
x traditional	(0.014)	(0.014)	(0.015)	(0.015)	(0.019)	(0.019)
Gender minority	0.017***	0.013***	0.042***	0.041***	0.020***	0.014**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)
Female boss		0.008***		-0.012***		0.016***
		(0.003)		(0.004)		(0.004)
Number of		0.022***		0.006***		0.025***
employees		(0.002)		(0.001)		(0.002)
Age		0.003***		0.000		0.003***
		(0.001)		(0.000)		(0.001)
Age <sup>2</sup>		-0.000***		-0.000**		-0.000***
		(0.000)		(0.000)		(0.000)
Education		0.003***		0.001*		0.005***
		(0.001)		(0.001)		(0.001)
Ln Earnings		0.006***		0.002***		0.003**
		(0.001)		(0.001)		(0.001)
Intercept	0.054***	-0.125***	0.017***	-0.015	0.132***	-0.067**
_	(0.002)	(0.021)	(0.001)	(0.015)	(0.003)	(0.028)
Obs.	55,534	55,534	55,534	55,534	55,534	55,534
R-squared	0.005	0.016	0.021	0.026	0.004	0.018
Occupation fixed	NO	YES	NO	YES	NO	YES
effects						
Year fixed effects	NO	YES	NO	YES	NO	YES

**Table 5.3** OLS regressions testing the relationship between psychosocial working conditions variables

 and foreign female employees for countries with very and less tradition gender norms

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month.

#### **5.4 Alternative Specifications**

Table 5.4 shows the robustness test of the regression models in which *foreigner* is defined as a respondent who is not born in the country he or she is currently working in. The regression results of *female* show as expected positive coefficients, while they are only significant in regression (1). Moreover, the effect of *female* in regression (1) and (3) seems to be reduced compared to the regression results from Table 5.2. A reason could be that the number of observations has significantly dropped, since the subsample only consist of the 6<sup>th</sup> wave of the EWCS. Due to the low variation in the dependent variable, it could be that the smaller subsample is not able to identify this effect.

The same yields for the variable *foreigner*. While the regression coefficients are as expected positive in all regression models, the coefficient is only significant in regression (2). The effect also seems to be reduced compared to the regression results in Table 5.2. This can be explained, as part of the employees who have foreign parents were firstly categorized as foreigner, while they are now categorized as natives. If those employees with foreign parents experience on average more unfavourable psychosocial working conditions compared to employees with native parents, the difference in psychosocial working conditions between natives and foreigners in the renewed definition declines. Moreover, since only a subsample is used, it could be harder to identify the main effect due to the low variation in both the dependent variables as the variable *foreigner*.

The coefficient on the interaction term between *foreigner* and *female* is positive in regression (1) and (3), which is in contrast to the negative coefficient in Table 5.2. However, the coefficient in regression (3) in Table 5.4 is not statistically significant, so it cannot be concluded that the effect is in contrast to the regression coefficient of model (6) in Table 5.2. The same yields for regression (1) of Table 5.4. While the effect is positive and significant, the coefficient of regression (2) in Table 5.2 is not statistically significant, implying that it cannot be concluded that the effect is in contradiction.

The coefficient of gender minority is as expected positive and significant in all regression models, which is similar to the results of Table 5.2. Lastly, the results of female boss are also similar to the regression results shown in Table 5.2.

Table 5.5 shows the regression results with the altered definition of traditional countries. Taking only the 25 percent most and least traditional countries into account, the regression models show similar results to the results in Table 5.3. The main variable of interest, which is the interaction term between *female*, *foreigner*, and *traditional*, is still positive in all three

Variables	Psychosocial working conditions					
	(1)	(2)	(3)			
	One year	Discr	Last month			
Female	0.006	0.019***	0.007			
	(0.004)	(0.003)	(0.005)			
Foreigner	0.011	0.031***	0.016			
	(0.007)	(0.010)	(0.015)			
Foreigner x female	0.026*	-0.006	0.034			
	(0.010)	(0.014)	(0.022)			
Gender minority	0.014**	0.041***	0.014*			
	(0.006)	(0.006)	(0.008)			
Female boss	0.007**	-0.010***	0.021***			
	(0.004)	(0.003)	(0.005)			
Number of employees	0.026***	0.009***	0.031***			
	(0.002)	(0.002)	(0.003)			
Age	0.004***	0.001	0.005***			
-	(0.001)	(0.001)	(0.001)			
Age <sup>2</sup>	-0.000***	-0.000***	-0.000***			
	(0.000)	(0.000)	(0.000)			
Education	0.001	0.002*	0.004**			
	(0.001)	(0.001)	(0.002)			
Ln Earnings	0.002**	0.001	0.002			
-	(0.001)	(0.001)	(0.001)			
Intercept	-0.117***	-0.019	-0.104**			
	(0.031)	(0.024)	(0.041)			
Obs.	28,757	28,757	28,757			
R-squared	0.015	0.010	0.017			
Occupation fixed effects	YES	YES	YES			
Year fixed effects	YES	YES	YES			

**Table 5.4** Robustness test testing the relationship between psychosocial working conditions variables and foreign female employees using the  $6^{th}$  wave of the EWCS

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month.

regression models and statistically significant in the first regression model. Therefore, the results of Table 5.3 seem to be robust to alternative specifications.

Appendix D shows some additional robustness tests, using binary logistic models rather than OLS regression models. Table D.1 shows that the results are similar to the results of Table 5.1, as the regression results show that both female employees and a gender minority employees have a higher probability of experiencing less favourable psychosocial working conditions.

Variables	Psychosocial working conditions			
	(1)	(2)	(3)	
	One year	Discr	Last month	
Female	0.033***	0.029***	0.030***	
	(0.005)	(0.004)	(0.007)	
Foreigner	0.036***	0.095***	0.029**	
	(0.009)	(0.009)	(0.012)	
Traditional	-0.008*	0.008***	-0.023***	
	(0.004)	(0.003)	(0.006)	
Foreigner x female	-0.026*	-0.040***	-0.041**	
	(0.013)	(0.013)	(0.017)	
Female x traditional	-0.030***	-0.012***	-0.031***	
	(0.006)	(0.004)	(0.009)	
Foreigner x traditional	-0.011	-0.000	0.020	
	(0.013)	(0.014)	(0.017)	
Foreigner x female x	0.040**	0.026	0.028	
traditional	(0.019)	(0.020)	(0.024)	
Gender minority	0.021***	0.047***	0.024***	
	(0.006)	(0.006)	(0.008)	
Female boss	0.006*	-0.014***	0.015***	
	(0.004)	(0.003)	(0.005)	
Number of employees	0.023***	0.007***	0.020***	
	(0.002)	(0.002)	(0.003)	
Age	0.004***	0.001	0.004***	
	(0.001)	(0.001)	(0.001)	
Age <sup>2</sup>	-0.000***	-0.000**	-0.000***	
	(0.000)	(0.000)	(0.000)	
Education	0.003**	0.003***	0.003	
	(0.001)	(0.001)	(0.002)	
Ln Earnings	0.009***	0.003**	0.008***	
	(0.001)	(0.001)	(0.002)	
Intercept	-0.144***	-0.027	-0.093*	
	(0.029)	(0.022)	0.036	
Obs.	31,413	31,413	31,413	
R-squared	0.020	0.031	0.022	
Occupation fixed effects	YES	YES	YES	
Year fixed effects	YES	YES	YES	

**Table 5.5** Robustness test testing the relationship between psychosocial working conditions variables

 and foreign female employees for countries with very and less tradition gender norms

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month.

Table D.2 also shows similar results to the regression results shown in Table 5.2. Table D.2 shows that being a foreigner leads to a higher probability of experiencing unfavourable psychosocial working conditions. Moreover, as already found in Table 5.2, the results show that being a foreigner does not lead to a more negative effect on psychosocial working conditions for women. These results indicate that the regression results found in Table 5.2 are robust to alternative estimation methods.

Lastly, Table D.3 shows the regression results testing the third hypothesis using binary logistics regression models. As expected, the main variable of interest, which is the interaction term between *foreigner*, *female*, and *traditional*, shows positive coefficients, and is even significant at the 10 percent level in all three regressions. It can thus be concluded that the regression results found in Table 5.3 are robust for using alternative estimation methods.

#### 6 Conclusion

This research uses the 5<sup>th</sup> and 6<sup>th</sup> wave of the European Working Conditions Survey to study gender differences in psychosocial working conditions according to the main question: To what extent do foreign women experience less favourable psychosocial working conditions in Europe?

Using several OLS regressions, this research finds' empirical support that female employees experience on average more violence, bullying, or sexual harassment, more discrimination, and more verbal abuse, unwanted sexual attention, or threats/humiliating behaviour compared to male employees. The same yields for employees who are a gender minority. This research also provides empirical support that foreign employees experience less favourable psychosocial working conditions compared to natives, while this effect does not appear to be more pronounced for foreign women. However, comparing the effect of being a foreign female employee between countries with very traditional gender norms and countries with less traditional gender norms, it turns out that being a foreign female employee leads to higher rates of violence, bullying, or sexual harassment, higher rates of discrimination, and higher rates of verbal abuse, unwanted sexual attention, or threats/humiliating behaviour compared to male employees.

Summarizing, this research shows that while both female and foreign employees experience less favourable psychosocial working conditions in Europe, it provides no empirical support that foreign female employees experience less favourable psychosocial working conditions than foreign male employees.

A potential limitation of this research is that it only includes a correlational study, which makes it impossible to draw conclusions about causality. A second potential limitation might be that this research only includes questions from the European Working Conditions Survey which indicate whether someone did or did not experience any of these psychosocial working conditions. This leaves out the opportunity to study the degree to which employees experience for example discrimination, verbal abuse or sexual harassment. Using survey data which gives respondents the opportunity to indicate to what extent they experienced those psychosocial working conditions might be an improvement of this research. Lastly, it is important to note that selection effects play an important role in this research. Especially when studying the difference between countries with very traditional gender norms and more egalitarian countries, it is important to consider selection effects.

A remarkable observation is that while employees who have a female boss experience on average less discrimination, they did experience more violence, bullying or sexual harassment in the last twelve months as well as more verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the past month. These results suggest that in organizations with female bosses, the working atmosphere seems more hostile. Future research could focus on these results by diving deeper into this correlation and examining potential explanations for this observation. In line with this, another remarkable observation is that in female-dominated workplaces, there seems to be more verbal abuse, unwanted sexual attention, or threats/humiliating behaviour compared to male-dominated workplaces. Future research could dive deeper into this observation by studying what is driving these results, and whether this observation is mainly caused by female employees or female bosses.

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#### **Appendix A: Differences in Psychosocial Working Conditions**

Table 14.1 Wiedli of ps	yenosoeiai working eonar	tions for male and female ef	npioyees
	Gender minority	Gender non-minority	p-value
One year	0.082	0.065	0.000
Discrimination	0.078	0.036	0.000
Last month	0.164	0.144	0.000

Table A.1 Mean of psychosocial working conditions for male and female employees

The variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discrimination* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. The last column shows the p-value of a two-sample t-test with unequal variances testing the statistical difference between the two groups.

Table A.2 Mean of psychosocial working conditions for male and female employees

	Foreigner	Non-foreigner	p-value	
One year	0.091	0.063	0.000	
Discrimination	0.102	0.030	0.000	
Last month	0.169	0.142	0.000	

The variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discrimination* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. The last column shows the p-value of a two-sample t-test with unequal variances testing the statistical difference between the two groups.

## Appendix B: Separate OLS Regressions testing Psychosocial Working Conditions

Variables	Psychosocial working conditions			
	(1)	(2)	(3)	
	Verbal abuse	Unwanted sexual	Threats/humiliating	
		attention	behaviour	
Female	0.003	0.018***	0.004	
	(0.003)	(0.001)	(0.003)	
Gender minority	0.025***	0.006**	0.018***	
	(0.008)	(0.003)	(0.007)	
Gender minority x	-0.038***	0.005	-0.013	
female	(0.010)	(0.004)	(0.009)	
Female boss	0.015***	-0.002	0.008***	
	(0.003)	(0.002)	(0.003)	
Number of	0.020***	0.003***	0.019***	
employees	(0.002)	(0.001)	(0.002)	
Age	0.003***	-0.002***	0.003***	
	(0.001)	(0.000)	(0.001)	
Age <sup>2</sup>	-0.000***	0.000***	-0.000	
	(0.000)	(0.000)	(0.000)	
Education	0.005***	0.000	0.003***	
	(0.001)	(0.000)	(0.001)	
Ln Earnings	0.001	0.003***	0.004***	
	(0.001)	(0.001)	(0.001)	
Intercept	-0.062**	0.019**	-0.118***	
	(0.025)	(0.001)	(0.021)	
Obs.	55,534	55,534	55,534	
R-squared	0.012	0.015	0.014	
Occupation fixed	YES	YES	YES	
effects				
Year fixed effects	YES	YES	YES	

Table	<b>B.1</b>	OLS	regressions	testing	the	psychosocial	working	conditions	variables	verbal	abuse,
unwan	ted so	exual	attention, and	d threats	/hun	niliating behav	viour sepa	rately			

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. All three dependent variables are indications over the past month.

Variables	Psychosocial working conditions		
	(1)	(2)	(3)
	Violence	Bullying	Sexual harassment
Female	-0.003**	0.007***	0.011***
	(0.001)	(0.002)	(0.002)
Gender minority	0.007*	0.011***	0.004
	(0.004)	(0.004)	(0.004)
Gender minority x	-0.014***	-0.005	0.001
female	(0.004)	(0.006)	(0.006)
Female boss	0.009***	-0.001	0.000
	(0.001)	(0.002)	(0.002)
Number of	0.010***	0.010***	0.007***
employees	(0.001)	(0.001)	(0.001)
Age	0.001***	0.002***	0.001***
	(0.000)	(0.000)	(0.000)
Age <sup>2</sup>	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
Education	0.000	0.000	0.002***
	(0.001)	(0.001)	(0.001)
Ln Earnings	0.004***	-0.001	0.004***
	(0.001)	(0.001)	(0.000)
Intercept	-0.053***	-0.052***	-0.036***
	(0.014)	(0.014)	(0.013)
Obs.	55,534	55,534	55,534
R-squared	0.015	0.019	0.019
Occupation fixed	YES	YES	YES
effects			
Year fixed effects	YES	YES	YES

**Table B.2** OLS regressions testing the psychosocial working conditions variables violence, bullying, and sexual harassment separately

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. All three dependent variables are indications over the past twelve months.

Country		Mean
1. Turkey*	TR	1.91
2. Malta*	MT	2.02
3. Greece*	GR	2.04
4. Cyprus*	CY	2.11
5. Italy*	IT	2.15
6. Austria*	AT	2.20
7. Portugal*	РТ	2.21
8. Lithuania*	LT	2.22
9. Estonia <sup>2</sup> *	EE	2.22
10. Latvia*	LV	2.23
11. Poland*	PL	2.29
12. Montenegro*	ME	2.31
13. Switzerland*	СН	2.32
14. Albania*	AL	2.34
15. Hungary*	HU	2.36
16. Luxembourg*	LU	2.39
17. Romania*	RO	2.45
18. Serbia	RS	2.49
19. Germany	DE	2.51
20. Croatia	HR	2.54
21. Macedonia	МК	2.55
22. Czech Republic	CZ	2.58
23. Bulgaria	BG	2.60
24. Spain	ES	2.60
25. Slovakia	SK	2.67
26. Netherlands	NL	2.67
27. Slovenia	SI	2.68
28. Great Britain	GB-GBN	2.72
29. Ireland	IE	2.75
30. France	FR	2.77
31. Belgium	BE	2.82
32. Sweden	SE	3.07
33. Finland	FI	3.07
34. Norway	NO	3.38
35. Denmark	DK	3.39

## Appendix C: The Degree of Traditionality based on the European Value Studies

Table C.1 Countries and their corresponding mean value in the 4<sup>th</sup> wave of the European Value Studies

All countries which are considered as traditional are marked with a \*.

 $<sup>^{2}</sup>$  Estonia was missing in the 4th wave of the EVS, so this value of Estonia contains the mean value of the  $3^{rd}$  wave of the EVS.

Variables	Psychosocial working conditions			
	(1)	(2)	(3)	
	One year	Discr	Last month	
Female	1.227***	1.433***	1.140***	
	(0.053)	(0.083)	(0.035)	
Gender minority	1.321***	1.782***	1.277***	
	(0.110)	(0.188)	(0.077)	
Gender minority x	0.843	1.363**	0.769***	
female	(0.099)	(0.182)	(0.067)	
Female boss	1.128***	0.798***	1.123***	
	(0.045)	(0.043)	(0.032)	
Number of	1.464***	1.187***	1.238***	
employees	(0.038)	(0.041)	(0.022)	
Age	1.068***	1.034**	1.031***	
	(0.011)	(0.014)	(0.007)	
Age <sup>2</sup>	0.999***	0.999***	1.000***	
	(0.000)	(0.000)	(0.000)	
Education	1.043***	1.044**	1.044***	
	(0.015)	(0.019)	(0.010)	
Ln Earnings	1.116***	1.075***	1.036***	
	(0.014)	(0.019)	(0.011)	
Intercept	0.002***	0.006***	0.024***	
	(0.001)	(0.003)	(0.006)	
Obs.	55,534	55,534	55,534	
Pseudo R-squared	0.029	0.028	0.019	
Occupation fixed	YES	YES	YES	
effects				
Year fixed effects	YES	YES	YES	

#### Appendix D: Robustness Tests using Binary Logistic Models

**Table D.1** Logit regression models testing the relationship between psychosocial working conditions variables and female employees

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. The displayed coefficients are odds-ratios.

Variables	Psychosocial working conditions		
	(1)	(2)	(3)
	One year	Discr	Last month
Female	1.221***	1.850***	1.131***
	(0.053)	(0.116)	(0.034)
Foreigner	1.567***	4.929***	1.338***
	(0.107)	(0.349)	(0.066)
Foreigner x female	0.900	0.579***	0.832***
	(0.081)	(0.055)	(0.056)
Gender minority	1.202***	2.197***	1.115**
	(0.069)	(0.136)	(0.047)
Female boss	1.139***	0.756***	1.144***
	(0.044)	(0.039)	(0.032)
Number of	1.459***	1.177***	1.234***
employees	(0.038)	(0.040)	(0.022)
Age	1.067***	1.026*	1.031***
	(0.011)	(0.014)	(0.007)
Age <sup>2</sup>	0.999***	0.999***	1.000***
	(0.000)	(0.000)	(0.000)
Education	1.042***	1.038**	1.044***
	(0.015)	(0.019)	(0.010)
Ln Earnings	1.111***	1.058***	1.033***
	(0.016)	(0.020)	(0.011)
Intercept	0.002***	0.006***	0.024***
	(0.001)	(0.003)	(0.006)
Obs.	55,534	55,534	55,534
Pseudo R-squared	0.031	0.064	0.020
Occupation fixed effects	YES	YES	YES
Year fixed effects	YES	YES	YES

**Table D.2** Logit regression models testing the relationship between psychosocial working conditions variables and foreign female employees

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. The displayed coefficients are odds-ratios.

Variables	Psychosocial working conditions		
	(1)	(2)	(3)
	One year	Discr	Last month
Female	1.328***	2.136***	1.205***
	(0.069)	(0.170)	(0.043)
Foreigner	1.534***	5.054***	1.265***
	(0.131)	(0.471)	(0.079)
Traditional	0.907	1.214**	0.878***
	(0.056)	(0.110)	(0.036)
Foreigner x female	0.801**	0.499***	0.759***
	(0.090)	(0.062)	(0.065)
Female x	0.776***	0.701***	0.831***
traditional	(0.063)	(0.080)	(0.046)
Foreigner x	1.050	0.958	1.157
traditional	(0.149)	(0.138)	(0.119)
Foreigner x female	1.413*	1.445*	1.297*
x traditional	(0.266)	(0.281)	(0.181)
Gender minority	1.206***	2.204***	1.118***
	(0.069)	(0.137)	(0.047)
Female boss	1.127***	0.757***	1.134***
	(0.044)	(0.040)	(0.031)
Number of	1.451***	1.180***	1.229***
employees	(0.038)	(0.040)	(0.022)
Age	1.067***	1.026*	1.031***
	(0.011)	(0.014)	(0.007)
Age <sup>2</sup>	0.999***	0.999***	1.000***
	(0.000)	(0.000)	(0.000)
Education	1.041***	1.038**	1.043***
	(0.015)	(0.019)	(0.010)
Ln Earnings	1.102***	1.061***	1.024**
	(0.015)	(0.020)	(0.011)
Intercept	0.002***	0.005***	0.027***
	(0.001)	(0.002)	(0.007)
Obs.	55,534	55,534	55,534
Pseudo R-squared	0.033	0.026	0.018
Occupation fixed	YES	YES	YES
effects			
Year fixed effects	YES	YES	YES

**Table D.3** Logit regression models testing the relationship between psychosocial working conditions variables and foreign female employees for countries with very and less tradition gender norms

Robust standard errors are given in parentheses. \*\*\*, \*\*, \* shows that a coefficient is significant at respectively a 1, 5 and 10 percent level. The dependent variable *one year* is a dummy variable indicating whether someone experienced violence, bullying, or sexual harassment in the last twelve months. *Discr* indicates whether someone experienced discrimination in the last twelve months and *last month* indicates whether someone experienced verbal abuse, unwanted sexual attention, or threats/humiliating behaviour in the last month. The displayed coefficients are odds-ratios.