Working Mothers;

The influence of employment on motherhood

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Abstract

The central questions in this paper are; "*To what extent is having children explained by unemployment, self-employment and wage employment for women in 15 European countries?*" and "*To what extent can differences, in having children, between the types of employment be explained by (a) job autonomy, (b) working hours, (c) partner status and (d) the degree of parental support in countries?*". Theory suggests that certain types of employed are differently associated with having children. This is mainly because these types of employment offer different levels of flexibility. Job autonomy is a facilitator of flexibility, whereas part-time working weeks is an outcome of flexibility, these two factors also need to be analyzed since found preferences might be caused by differences in job-autonomy and working hours associated with different types of employment. Articles also suggest that women living in countries with extensive parental leave policies are more inclined to have children as a wage-employed female. Furthermore, whether a woman has a partner (with an income), might change the necessity of a female to work more often at home. Using data from the ESS and the ILO, a sample of 4585 women between age 25 and 47, not in education is created. Logistic regression analysis has shown that unemployed females overall have the highest chance to be a mother. Self-employed females are not more likely to be a mother compared to wage-employed. Job autonomy and part-time work are positively related to motherhood. Since self-employed women have more job autonomy and are more often working part-time, self-employment has an indirect relation with motherhood. Women living in countries with a high parental leave level, do not prefer working in wage-employment over self-employment differently than women living in countries with low parental leave levels. Single females and females with an employed partner are more likely to combine motherhood with unemployment than employment in general.

1. Introduction

Scientific articles concerning women's employment are available in abundance. The latter is also the case for motherhood and employment. There are several sub streams regarding motherhood and employment, yet individually they fail to give an overall picture of the relationship between motherhood and employment.

One branch of research focusses on the motherhood employment gap. This stream, in general, tries to find underlying mechanisms on why mothers are hindered in their labor-participation and subsequently could possibly end up in unemployment. In 2014, Rense Nieuwenhuis published his book called; "Combining Institutional and Demographic Explanations of Women's Employment and Earnings Inequality in OECD Countries, 1975-2005". In this book the motherhood employment gap is described and later partially explained by national contextual factors, such as policies. His main finding regarding this inequality in employment is that women with children were more often unemployed, compared to women without children, in the period between 1975 and 1999. Baker (2010) adds that mothers are more often unemployed than women without children and males altogether because of similar reasons indicated by Nieuwenhuis, yet Baker indicates different reasons too; domestic arrangements and "societal judgements". Then there is the phenomenon that mothers are underpaid. Budig and England (2001) claim that mothers are underpaid because of three reasons; they have less experience due to a temporal absence of the labor market, the negative effect of children on their productivity and finally, straight-up discrimination.

Another line of research, centers on the effects of children on the mothers mode of employment. The conclusions of the latter branch of research share the similarity that they accept the notion that there is a relationship between the presence of children and the mother's self-employment status (Wellington, 2006; Caputo & Dolisnky, 1998; Aidis & Wetzels, 2007). Uncertainty exists to what the cause is for this increase in the proportion of the self-employment branch. One established phenomena is that women who have young children are more often in the self-employment branch compared to women without

children (Wellington, 2006; Caputo & Dolinsky, 1998). This empirical relation is most often explained with the notion that self-employed mothers can balance life and career in a much more effective way compared to regular employment. This stream of research primarily investigates the effect of women's individual characteristics, like human capabilities and household composition.

Unfortunately, problems occur when the two different streams of research are brought together, for the sake of getting a more elaborate and inclusive overview. The focus of the motherhood employment gap lies on explaining differences between and within the levels of unemployment and employment. This however is difficult to combine with the dichotomy, which the other branch of research primarily focusses on; self-employment versus wage-employment.

While reviewing the literature to the best of my knowledge, articles exclusively make the comparison between either the unemployed and employed (Nieuwenhuis, 2014; Baker, 2010) *or* the self-employed and paid-employed (Wellington, 2006; Caputo & Dolisnky, 1998; Aidis & Wetzels, 2007). Articles which include all the three mentioned groups, unemployed, paid-employed and self-employed, are non-existent. I have yet encountered articles which represent the entire group of women participating in the labor market properly. Therefore this article functions as a bridge between the two branches of mothers' labor research. Considering the relation between women's wage-employment, self-employment, unemployment and the presence of young children in the family household. Taking into account both (a portion) of contextual and individual characteristics. Another opportunity in this article is to investigate the effect of "job-characteristics".

Different types of employment, bring up different constraints and opportunities. Raising children while working a 40-hour workweek might not prove to be ideal. Job autonomy and control is an important job-characteristic that differs significant between the three included groups. Self-employed women have more job autonomy than women in the wage-employed sector (Boden, 1999). This job autonomy puts women in control over two important aspects regarding time management. Women could choose their own working times and even the amount of working hours. Job autonomy and subsequently self-employment might prove to be a way for women to combine family and employment in an effective way (Wellington, 2006).

Furthermore the effect of partner's will also be taken into account. The case might be that partners provide enough income, taking away the female's need to participate in the working force for economic reasons. Other important options to consider regarding partners, is whether there is a partner at all. I assume that women with a child do more often have a partner than no partner, since it takes two to create a child and the likelihood of ending the relationship between the time of the birth of the child and its twelfth birthday[1] is smaller than the likelihood relation continuing. But none the less it is interesting to examine the employment type of choice if any at all for this growing group of single mothers. Also interesting is that both single women and women with a partner point equally often (±55%) towards taking care of the children as a reason for part-time employment (Ruggeri & Bird, 2014).

Then there is the point of context; geographical location and time period. Firstly, most of the encountered established articles focus on the North-Americas (Wellington, 2006; Caputo & Dolisnky, 1998; Budig & England, 2001) or very particular European countries (Aidis & Wetzels, 2007). Secondly, the researches use data of at least 10 years of age (Wellington, 2006; Caputo & Dolisnky, 1998; Aidis & Wetzels, 2007; Nieuwenhuis, 2014; Budig & England, 2001).

The majority of data for this article will come from the European Social Survey round 7 collected throughout 2014 and published in December of that year. This survey has data of respondents inhabiting 15 European countries. When focusing on different European countries, differences in institutional context could be larger than when focusing on the United States solely. European countries provide

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[1] In this paper young children are defined as children of at most 12 years of age.

overall extensive policies regarding parental leave, but variance between them is tremendous (Addati, Cassirer & Gilchrist, 2014).

Parental support policies grand women paid time off for a certain period of time. It is important to note that both the percentage of payment and the amount of weeks differ significantly between continents and countries. On average, Europe has the most extensive policies, but the actual amount of leave differs allot. For example Norway's parental leave for women is about three times as high as Switzerland's or Belgium's arrangements. These arrangements only are available for females in paid-employed, which might pull women into paid-employment since it might prove to enable women to combine their active employment status and motherhood (Addati, Cassirer & Gilchrist, 2014).

In an attempt to combine the two discussed streams and also partially controlling for the unaccounted job-characteristics, the next central question is constructed: *To what extent is having children explained by unemployment, self-employment and wage employment for women in 15 European countries?* Then the effect of specific job characteristics (a & b) which are more present in some types of employment will be investigated as intervening factors. The individual (c) and contextual (d) characteristic are interaction variables in the second question: *To what extent can differences, in having children, between the types of employment be explained by (a) job autonomy, (b) working hours, (c) partner status and (d) the degree of parental support in countries?*

After laying down the theoretical brickwork, the methodology will be discussed. Subsequently, the results of the conducted regression analysis will be discussed in the results section. In the conclusion the empirical results will be connected with the theoretical assumptions and derived hypothesis. Finally, a discussion in which both the limitations of this study and possible future research topics are displayed.

2. Theory

2.1 Type of work

The most important demographic factor when it comes to explaining whether women are employed in general, is the presence of at least one child in the household. Now, the negative association between children and employment does not automatically imply a causal relationship in which children is the cause of unemployment (Nieuwenhuis, Need & van der Kolk, 2012). Several studies show that women who already are in employment are making a serious effort to not get pregnant. (Bernhardt, 1993; Cramer, 1980; Waite & Stolzenberg, 1976). In this particular study the type of employment is treaded as the cause for motherhood[2].

In her article "Self-Employment and Providing Child Care" (1992), Rachel Connelly, points out several mechanisms that make mothers more reluctant towards employment. When these women work, they need to have someone to take care of the children. By outsourcing childcare, a woman's effective net income decreases substantially and subsequently making employment less attractive. Secondly, most women have concerns relating to the quality of childcare by "others". This pushes people, in particular women, to take care of their children themselves, making them less attractive as an employee.

Many mothers try to find alternative ways to combine employment and children. One strategy is self-employment. Edwards and Field-Hendrey (2002), Boden (1996 and 1999), Connelly (1992), Wellington (2001) and MacPherson (1988) all found that women in self-employment are more likely to have children relative to the wage-employed. The differences between these articles is primarily centered around the age of the children they consider.

Caputo and Dolinsky (1998), indicate that self-employment in general allows for more flexibility concerning working hours, both in quantity and allocation. Several studies support their notion that self-

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[2] More about this in the method section

employment (relative to wage-employment) grants females more of the necessary flexibility (Birley, 1989; Brush, 1992 and 1990; Scott, 1986; Darian, 1975).

The finding that unemployed women have more children compared to the employed in general, together with the finding that self-employed women are more likely to be a mother relative to the wage-employed, bring me to the first hypothesis:

H1: Self-employed women will have more often children compared to wage-employed women (a) and have less often children compared to unemployed women (b).

2.2 Job autonomy

As mentioned before Caputo and Dolinsky (1992) point out that flexibility concerning working schedule is a determinant of having children. Part-time work could be seen as the outcome of flexibility concerning working schedule, whereas job autonomy is more of a facilitator of flexibility and subsequently part-time work (Marchese & Ryan, 2001).

Gash (2009) finds in her paper that in every country which she analyzed, mothers have a slightly higher score for job autonomy compared to women without children. She also provides a possible explanation to why this might be the case: "*Job autonomy, is likely to facilitate work-life balance and may, therefore, be pursued by working-mothers.*"

Many papers state that self-employment grants overall more job-autonomy, compared to wage-employment (Benz & Frey, 2003; Feldman & Bolino, 2000; Hundley, 2001).

The above two paragraphs combined make me believe that job-autonomy is a mediator between type of employment and motherhood. Hence, the next hypothesis:

H2: The relationship between the "type of employment" and "having children" (as formulated in H1) is (partially) explained by "job autonomy".

2.3 Working hours

Mothers work more often part-time compared to their non-mothers counterparts. Coming down to the observation that there is an association between part-time jobs and having children (Budig & England, 2001). Part-time work allows mothers to still be in employment and (partially) provide childcare (Connelly, 1992).

Connelly (1992), states that self-employment facilitates part-time employment, temporal employment, and independent contracting better compared to wage-employment. Females engage disproportionately in so called part-time-self-employment. This is portrait by data from the LFS (2014); "*The proportion of women among the self-employed was much lower (34.2 %) than among employees, but was higher among part-time self-employed persons (55.4 %).*"

The combination of two statements; Mothers engage more often in part-time working schedules (relative to the full-time working schedules) *and* self-employed women work more often in part-time employment (compared to wage-employed women), bring me to the next (mediating) hypothesis:

H3: The relationship between the "type of employment" and "having children" (as formulated in H1) is (partially) explained by "working hours".

There are also factors which might alter the necessity for flexibility. One example could be policies which allow parents to take (paid) time off; the so called parental leave. A second example could be the household situation of a female, where other household members could either take care of the childcare and/or financial income.

2.4 Parental leave

Nieuwenhuis (2014) found that (paid) parental leave policies allow employed women to combine work and family. There are two reasons to why this might be the case. Firstly, it allows time for a mother to provide childcare during the most critical time of her child's life. Secondly, parental leave also guarantees women that they can return to their position in an organization after this period of parental leave.

These two reasons might make women perceive the combination of employment and motherhood more favorably. Important to note is that these leave policies (often) only address the wage-employed, not the unemployed and self-employed. This could imply that in countries with high parental leave levels, wage-employed women are more likely to have children, compared to wage-employed women inhabiting low parental leave level countries. This makes me believe that the effect of parental leave is not a direct effect, but rather an interaction effect. This brings me to the next hypothesis:

H4: The effect of self-employment and unemployment on the likeliness of motherhood, will be weaker, the more extensive parental leave policies within a country are.

2.5 Partner effects

Moving on to the effect of different types of partners. I expect that women's preference for combining a certain type of employment with having children changes, when also considering their partner. In the next subsection I consider three types of partners; no partners, partners without an income and partners with an income. This means that hypothesis 5 is made out of three expectations.

The first group to consider are the single mothers. These females are more frequently unemployed, than the entire population of females in general. Youngblut, Braden, Brooten and Thomas (2000) point out that single mothers desire employment, but have difficulty balancing this with their obligation and responsibility to provide the necessary childcare. These authors also name the absent partner as a reason to why these women are more often unemployed. Partners could relieve mothers by supporting mothers in giving childcare or even (partially) providing the necessary childcare themselves.

To my knowledge, there are no scientific articles describing the relationship between self-employment and single motherhood. However, since many authors (Edwards and Field-Hendrey, 2002; Boden, 1996 and 1999; Connelly, 1992; Wellington, 2001; MacPherson, 1988) describe self-employment as a strategy to balance family and employment, I would imagine this would be especially true for single mothers. Hence, I think that single mothers are more likely to be either self-employed or unemployed. This leads to the next hypothesis:

H5a: The effect of self-employment and unemployment on the presence of at least one child, will be stronger, when a woman has no partner.

About the group of women with an employed partner is, to my knowledge, no scientific writing yet. My assumption to why this might be the case, is the size of the group; it is a relatively (very) small group. Unfortunately that leaves me no other option but to theorize about the (underlying) mechanisms myself.

My expectation is that when an unemployed partner is present, the mother in question would prefer the financial and procedural stability offered by wage-employment over unemployment and self-employment. In the subsection about single mothers, the lack of a partner makes mothers bear the entire load of childcare themselves and this might discourage them from working. For the mothers an unemployed partner, this is not the case. The unemployed partner could hypothetically provide (all) childcare, allowing the mother to acquire the necessary financial income.

However not grounded on actual scientific theory, I believe that women with an unemployed partner are more willing to combine wage-employment and motherhood. This brings met to the following hypothesis:

H5b: The effect of self-employment and unemployment on the presence of at least one child, will be weaker, when a woman has a partner with no income.

Several authors (Budig, 2006; Conelly, 1992; MacPherson, 1988), found that women whose partners have incomes are more likely to be self-employed. This makes me believe that the financial stability provided by the partner, women stimulates to get into self-employment. Self-employment has its merits, as earlier discussed (primarily flexibility), but it also brings uncertainties about. When a partner provides a stable income, the necessity for the female to acquire a stable income becomes less. When a female becomes a mother the balance between merits and disadvantages of self-employment, shifts more towards the side of the merits, since mothers are preferring flexibility over stability. This paragraph also stands in a similar fashion for the unemployed (Anderson & Levine, 1999). This leads to my last hypothesis:

H5c: The effect of self-employment and unemployment on the presence of at least one child, will be stronger, when a woman has a partner with income.

The next figure is a summary of the described theory in diagram form.

Figure 1. Central l Model
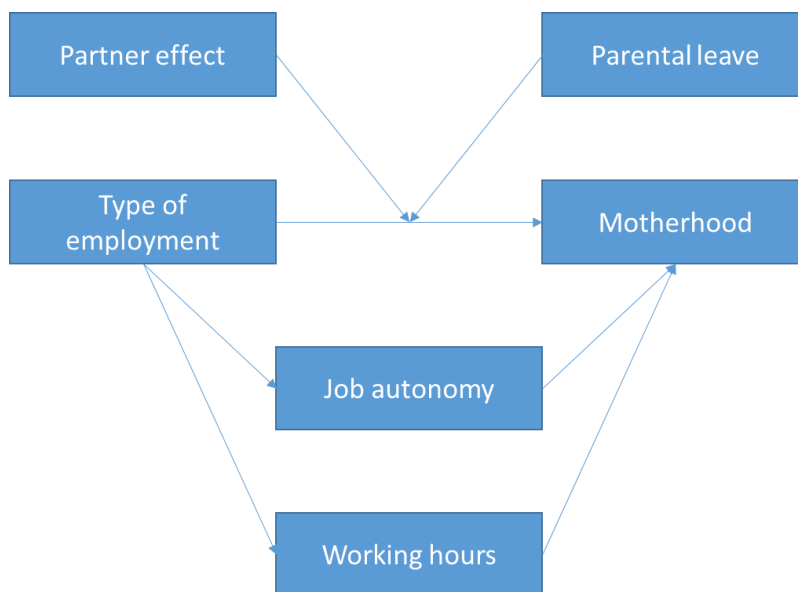
3. Methods

3.1 Introduction to Methods

Data from the European Social Survey round 7 will be used. This data was collected throughout 2014 and finally published in early 2015. This survey contains a high amount (±500) of variables for 28221 people. The respondents come from 15 European member states, unfortunately the focus lies very centered on the Northern-European countries. France is the most Southern country which is an indication of the center of attention for this broad survey (ESS, 2015). The countries in this survey are: Austria,

Belgium, Switzerland, Czech Republic, Denmark, Germany, Estonia, Finland, France, Ireland, Netherlands, Norway, Poland, Sweden and Slovenia.

This is observational data only, bringing threats, primarily to internal validity. Time order when determining causality is a legit problem in this specific investigation. It is uncertain whether women first have a child and then (possibly) prefer one mode of employment over the other, or that females first have a type of work and then decide to have children. This makes this study one of association rather than one of causality. Since regression is the method with which the relationship will be tested and motherhood is a binary variable opposed to the three nominal categories of type of employment, motherhood will be treated as the dependent variable. Choosing type of employment as the dependent variable would mean multinomial regression analysis is the specific subtype of regression, which I am not familiar with at this point. Since, the dependent variable is binary, logistic regression can be used, which I am also not familiar with, but is easier to master than multinomial regression. In this paper four controls are used; age, education, religiosity and country. How these are categorized, treaded and coded will be explained in section 3.8 till 3.11.

To create the sample of interest three filters will be included; gender, age and education. Only women aged between 25 and 47 and not in education are included. The lower age limit is since a majority of this group younger than 25 does not have children for all kinds of reason (education, finances, lifestyle, etc.) Since, this article tries to explain the combining of childcare and employment and a child in this instance is someone less than 12 years of age it would not really make sense to include women outside of their peak of fertility. Hence, I set the upper limit to women who were 35 plus 12 years of age at the time of the survey. Women in education might be for that reason unemployed and childless, including them would skew the results. Women with a missing value on one of the variables will be excluded from the sample. After doing all these steps, 4585 cases remain.

The numbers regarding the paid parental leave weeks and amount of pay is accessible in a series of publications: "Maternity and paternity at work: Law and practice across the world" in the "International Labour Organization" (Addati, Cassirer & Gilchrist, 2014). Appendix 4 contains a guide how to use the spss-syntax file and the actual syntax written out. With this syntax it is possible to examine every coding and test, which I have computed.

3.2 Dependent Variable (Y): Motherhood

The dependent variable will be treated as a binary variable. Women with at least one child, with an age of 12 or lower, will be given the score; 1. Women without children of this age will be attributed a 0. I somewhat arbitrarily chose 12 years of age since this is the age where most children start going to secondary education (Eurydice, 2015).

3.3 Independent Variable (X1): Type of work

For retrieving the main independent variable I will use the variable "Employment relation", which is included in the data set. This variable has 7 different possible values; 1. Employee 2. Self-Employed 3. Working for own family business 6. Not applicable 7. Refusal 8. Don't know 9. No answer. Individuals with 1 as an answer "Employee" are considered regular wage-employees. Individuals with either 2 or 3 as a value are the "Self-Employed". The group with the value "not applicable" are the unemployed. Individuals with either answer 7, 8 and 9 are not included in the analysis.

3.4 (Mediating) Independent Variable (X2): Job autonomy

The values for job autonomy will be derived from the variable; "Allowed to decide how daily work is organized". I am aware this variable does not cover the concept of job autonomy fully, however it measures that aspect of job autonomy I am especially interested in. This variable indicates how much freedom people have when deciding about working hours and is measured on a 0 to 10 scale. Women answering with "Not applicable" are unemployed and it therefore seems illogical to include these since

there is not such a thing as job autonomy in those cases. Cases with "Refusal", "Don't know" and "No answer" will be treated as cases with missing values.

3.5 (Mediating) Independent Variable (X3): Working hours

The amount of working hours an individual works is derived from the variable; "Total hours normally worked per week in main job overtime included". Ranging from 0 to 168 hours a week, with a peak around the 40-hours mark. Part-time employment is defined as an individual working 5 till 30 hours on a weekly basis. Full-time employment is typical working weeks of atlest 30 hours (Buddelmeyer, 2005).

3.6 Independent Variable (X4): Partner effects

To check the "partner's effect hypothesis" three categories will be constructed. The first one being no partner, the second partner without paid work and lastly partner with paid work. To divide "no partner", "partner without paid work" and "partner with paid work", the variable-series "Partner's doing last 7 days" will be used. Where "not applicable" stands for "no partner". The group "partner without paid work" is made of persons checking one of the next boxes; "education", "unemployed, actively looking for job", "unemployed, not actively looking for job", "permanently sick or disabled", "retired", "community or military service", "housework, looking after children, others" and "other". Person checking the box "paid work" make up the group "partner with paid work".

3.7 (Interacting) Independent Variable (X5): Parental leave

The numbers regarding the paid weeks and amount of pay is accessible in a series of publications: "Maternity and paternity at work: Law and practice across the world" in the "International Labour Organization" (Addati, Cassirer & Gilchrist, 2014). For the height of the parental leave a new variable will be created; "Cumulative Parental Leave". The amount of paid weeks times the percentage of pay will be the function of this newly constructed variable (and can be found in the appendix). This variable will further be categorized into low and high parental support. The cut-off point is the average height of the parental leave, which for my sample is 1747,01. A quick analysis shows that Norway (3500) scores higher for this variable than Belgium (1153), Sweden (1120) and Switzerland (1120) combined. Appendix 2 shows what the height of this newly computed variable, the amount of weeks and the percentage of pay is and whether they fall into the low or into the high category.

3.8 Control Variable: Education

For the control variable, education; "Highest level of education" out of the ESS file will be used. The levels of education are presented as ISCED-levels, ISCED stands for The International Standard Classification of Education, and is widely used. The ESS provides all types of ISCED-classifications. Also many kinds of sub forms, which I will combine to reduce back to 7 original levels of education. Appendix 1 contains a very detailed description of how these groups are constructed. These 7 levels of education are split into two groups; "No/Lower Education" and "Higher Education". The bigger group "No/Lower Education" is made out of the subgroups; "Not completed ISCED level 1", "ISCED1", "ISCED 2", "ISCED 3". "ISCED 4", "ISCED 5" and "ISCED 6" are the subgroups which make up the group "Higher Education".

3.9 Control Variable: Age

For the second control variable, age. I will use "Age of respondent, calculated". As mentioned earlier only women between 25 and 47 are included, this will leave this variable with not have that much variance, but then again it is a control variable and therefore I am not that interested in the effects of extreme cases. Ideally the inclusion of this variable leaves the "real model" unaltered.

3.10 Control Variable: Religiosity

The third variable is religiosity. In the survey respondents were asked: "*Belonging to particular religion or denomination*". They could answer either with "yes" (1), "no" (2), "refusal" (7), "don't know" (8) and "no answer" (9). 7, 8, and 9 are treated as missing values. The other two answers are operationalized as dummies.

3.11 Control Variable: Country

The final control variable is the country a women lives in. There are 15 different countries included in the original ESS. The 15 included countries are: Austria, Belgium, Switzerland, Czech Republic, Denmark, Germany, Estonia, Finland, France, Ireland, Netherlands, Norway, Poland, Sweden and Slovenia. These 15 countries will all be coded as a dummy.

3.12 Descriptive statistics and frequencies for dependent, independent and control variables

The tables below show different frequencies and descriptive statistics for the independent, control and dependent variable(s). All the frequencies regarding the categorical control variables can be found in the appendix (table 2a and table 2b).

Table 1. Frequencies of Dummies

N=4585	Yes	% of total (Yes)
Mother (Y)	2461	53,7%
Type of employment (X1)	-	-
-Wage-employed	4076	88,9%
-Self-employed	368	8,0%
-Unemployed[3]	141	3,1%
Working hours (X2)	-	-
-Part-time	1090	23,8%
-Full-time	3354	73,2%
Type of partner (X4)	-	-
-No partner	1268	27,7%
-Partner without paid work	281	6,1%
-Partner with paid work	3036	66,2%
Parental leave (X5)	-	-
-Inhabiting low parental leave country (<1747)	2641	57,6%
-Inhabiting high parental leave country (>1747)	1944	42,4%

Table 3. Descriptive Statistics

	X2	Control 1
N=4585	Job Autonomy (Scale)[4]	Age of respondent (Years)
Minimum	0	25
Maximum	10	47
Mean	6,32	36,84
Std. Deviation	3,23	6,38

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[3] Unemployment is both a value in the variables "type of employment" and "working hours"

[4] Important to note here is that the N for this variable is actually 4735 since I marked the unemployed as being missing on this value.

4.Data Analysis

4.1 Introduction

Since I want to know how the different variables correlate to each other and what the strength of this relation is, I started the analysis with performing a bivariate analysis. The main purpose of this correlation analysis is to get a preliminary glance at the "simple" association between the independent and dependent variables. After the correlation analysis, a regression analysis is performed to see which independent variables and control variables can explain what percentage of the observed variance of the dependent variable. This can be seen by consulting the Nagelkerke pseudo R. The regression table shows which variables have a statistically significant effect, as well as size and direction of this effect.

4.2 Discussion of the results

4.2.1 Bivariate analysis

This bivariate analysis consist of roughly three parts and purposes to find "preliminary answers" on my hypotheses. In the first part the relationship between type of employment and motherhood is examined. In the second part I will assess the relationship between the main independent variable and the two mediating variables; job autonomy and working hours. In the third and final part I will examine the association between these mediating variables and the main dependent variable (motherhood). Figure 2 displays a schematic representation of the approach to this part of the analysis.

Figure 2. Schematic representation of the bivariate analysis.
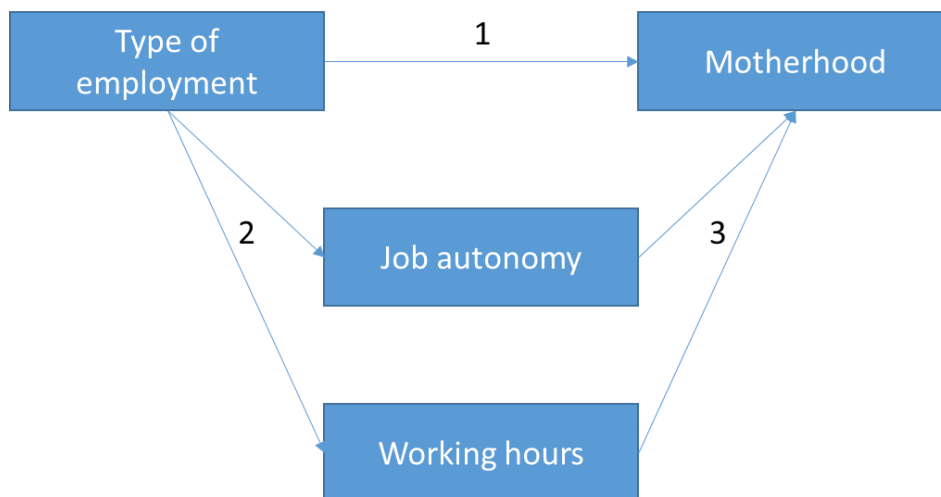
4.2.1.1 "Type of employment" vs "Motherhood"

The relationship between type of employment and motherhood is the basis of my first hypothesis. This relationship is being tested by creating crosstabs and computing the Pearson Chi-Square score. The type of employment is inputted not as three separate dummies, but rather as one nominal variable. In table 4 the frequencies, row percentages and difference between motherhood and non-motherhood are presented.

Looking at this table we can see that the biggest fraction of the women is mother. However when splitting up the women on type of employment it reveals that there is quite a difference to the actual fractions of women being mother. Wage-employed women are overall less likely to be a mother compared to the other groups. Self-employed women (53,5%) are slightly more often mother compared to the wage-employed women (53,1%). The unemployed women are most likely to be mother. 70,9% of the unemployed women is mother, comparing this to the wage-employed and self-employed they are respectively 17,8% and 17,4% more likely to be mother. Although the differences between the wag- and self-employed are minimal it is in line with hypothesis 1, as stated in the theory section.

Table 4. Employment relation and motherhood cross tabulation

N=4585	No-Mother	Mother	Difference
Wage-Employed	1912 (46,9%)	2164 (53,1%)	6,2%
Self-Employed	171 (46,5%)	197 (53,5%)	8,6%
Unemployed	41 (29,1%)	100 (70,9%)	41,8%

The relation also proved to be significant. The Pearson Chi-Square for this relationship is 17,429, with 2 degrees of freedom, at a significance level of $p<0,01$. The assumption of at least 5 expected counts is met; the minimum expected count is 65,32. This tells us that there is indeed a relationship.

4.2.1.2 "Type of employment" vs "Job autonomy" and "Working hours"

Job autonomy and working hours are both modeled as mediating effects between type of employment and motherhood. In this part I will check the first section of these mediating relationship. Therefore in this section the relationship between type of employment and job autonomy, respectively working hours is closer examined. Important to note is that unemployed females are assigned into the missing group when it comes to job-autonomy and are not categorized into the part-time and full-time groups and therefore will not have a score for these two variables. Hence, the group of unemployed women is not further analyzed in this section.

Type of employment is, as said many times before, a nominal variable. Job autonomy is operationalized as a scale ranging from 0 till 10. To see whether the groups (self-employed and wage-employed) differ on this variable, the groups are being split. Then to determine whether these groups have a significantly different value for this job-autonomy, a t-test is performed. This test is used to assess the correctness of hypothesis 2. Table 5 shows the mean and standard deviation (between brackets) split for wage-employees and self-employees. Also the difference in percentages and probability is displayed in the last two columns.

Table 5. Comparing job-autonomy scores between wage- and self- employed

N=4444	Wage-employed (N=4348)	Self-employed (N=387)	Difference	Probability (2-sided)
Job autonomy	6,06 (3,222)	9,25 (1,652)	52,64%	<0,0001

The difference between the mean job-autonomy score for the wage employed (6,06) and self-employed (9,25) is statistically significant on a high level ($p<0,0001$). This indicates that the difference of 52,64% cannot be ascribed to chance. The average score of the self-employed is exceptionally high, since the scale has a maximum value of 10. This is a (preliminary) indicator that the first part of hypothesis 2 is correct.

Now moving on to the other mediating variable; working hours. This variable is coded as a dummy variable. The part-time group is made out of person working typically 5-30 hours a week and the full-time group is made out of person working typically more than 30 hours on a weekly basis. Because this variable has nominal characteristics and so does the other variable of interest; type of employment, a similar strategy is used as in 4.2.1.1. Coming down to a cross tabulation and a computing of the Pearson Chi-Square test.

The wage-employed females are (relatively) less often participating in part-time working weeks compared to the self-employed. Self-employed women (28,8%) participate more often in part-time work compared to the wage-employed (24,1%). This finding is (preliminary) support of the first part of hypothesis 3. What is rather remarkable however, is that self-employed females work overall more weekly-hours (40,41) compared to the wage-employed (36,85). This might be an indication that self-employed women have a wider range of working hours; they can choose how many hours they work

more freely compared to the wage-employed. In table 6 the frequencies, row percentages and difference between Part-time and Full-time are presented.

Table 6. Employment relation and working hours cross tabulation

N=4444	Part-time	Full-time	Difference
Wage-Employed	1000 (24,1%)	3257 (75,9%)	51,8%
Self-Employed	106 (28,8%)	262 (71,2%)	42,4%

The Pearson Chi-Square score for this relationship is 3,965, with 1 degree of freedom, at an (exact) significance level of 0,050 (2-sided). With a minimum expected count of 90,26, the assumption of at least 5 expected counts is met. I can conclude that the relationship is significant, since I expected a sided relationship; Self-employees work relatively more often part-time.

4.2.1.3 "Job autonomy" and "Working hours" vs "Motherhood"

The final thing left to do is to see whether the mediating variables have association with the dependent variable; motherhood. After that the overall mediating paths will be closer looked at. In this (sub)section the unemployed females will be left out for similar reasons as mentioned in 4.2.1.2.

For the association between job autonomy and motherhood the sample will be split into non-mothers and mothers, the job autonomy means for both groups will be computed and a t-test is computed in order to acknowledge what the probability is that these differences in means can be ascribed to mere chance. In other ways table 7 will look an awful lot like table 5. Where the only difference is that wage-employed is replaced by non-mothers and self-employed is replaced by mothers.

Table 7. Comparing job-autonomy scores between non-mothers and mothers

N=4444	Non-mothers (N=2083)	Mothers (N=2361)	Difference	Probability (2-sided)
Job autonomy	6,22 (3,307)	6,41 (3,186)	3,05%	0,0514

Mothers have generally speaking more job autonomy than non-mothers. The difference between these groups is rather small, but statistically significant (on a p<0,1 level). That mothers have higher job autonomy is in line with theoretical expectations.

It is difficult to say whether the effect of job autonomy that contribute via this mediating variable to be a mother is significant in size. As discussed earlier self-employed women have on average 52,64% more job autonomy and mothers have only 3,05% more job autonomy.

Now there is only the relationship between working hours and motherhood to examine. For the association between working hours and motherhood a Pearson Chi-Square score will be computed and the row percentages will also be presented. This table, on its turn, will look a lot like table 6 since working hours and motherhood are both treated as nominal variables.

Table 8. Motherhood and working hours cross tabulation

N=4444	Non-mother	Mother	Difference
Part-time	390 (35,8%)	700 (64,2%)	28,4%
Full-time	1693 (50,5%)	1661 (49,5%)	-1,0%

For this test the Pearson Chi-Square score is 58,845 at an (exact) significance level of p<0,001 (2-sided). The minimum expected count for this Chi-Square test is 575,87; which is well-above the threshold of a minimum expected count of 5. Part-time workers are more often mother compared to full-time workers.

To be specific, part-time workers (64,2%) are more often mother compared to full-time workers (49,5%). This is what I expected in the text accompanying hypothesis 3 in the theoretical framework.

With this finding and the finding in the earlier (sub)section we can conclude that, at least looking when looking at the isolated relationship, that self-employed women work more often part-time and subsequently that part-time work contributes to being a mother. The size of this effect is difficult to assess however.

4.2.1.4 Conclusion of the bivariate analysis

The findings in section 4.2.1 are all in line with personal expectations. However, these findings do not fulfill the requirements to accept my hypotheses; more is needed. Since, the expectation is that multiple factors explain (partial) variance in motherhood[5], it is also necessary to model and analyze their effect simultaneously. The need also exists to check whether these found relationships also uphold when controlling for (possible) interfering variables like age, education, religiosity and country. Another reason why bivariate analysis is not the endpoint in this analysis is that hypotheses 5 and 6 are not included in the bivariate analysis and might especially alter the findings of hypothesis 1. Hypotheses 2 and 3 are not directly affected but the possibility exists that they actually are influenced in some unforeseen way.

4.2.2 Logistic regression analysis

Logistic regression analysis is the type of statistics used for checking models with multiple independent variables and a binary dependent variable. Since I also included interaction effects in my model "partner effect" and "parental leave", the final model (4) will additionally be conducted a total of 5 times; 1 for each partner effect (3 in total) and for each category of parental leave (2 in total). So, the sample will be split up a total of 5 times and then the changes in coefficients will be examined. Changes in the coefficients could tell something about the effect of these variables.

For the logistic linear regression I will build up a model in an incremental and systematic way. To test hypothesis 1, model 1 is used. In the first model only the type of employment is treated as an independent variable. The first model serves the purpose of estimating the relationship between type of employment and having children. I expect that self-employed females have a positive B-coefficient since I expected them to be more likely to be a mother, the B-coefficient for the unemployed should be even more positive for the same reason.

Model 1 in combination with model 2 or model 3 is used for hypothesis 3, respectively hypothesis 2. In these models we are especially interested in the actual coefficient for working hours and job autonomy in combination with changes in the B-coefficients for self-employment. Model 4 contains the main independent variable, type of employment, together with the hypothesized mediators (working hours and job autonomy).

Changes in model 4, particularly a decrease of the B-coefficient, both in size and significance, for self-employment tells us that there indeed is a mediating path at work. Model 4 is also used to compare to model 5 and 6.

In model 5, the sample is split on the height of the parental leave in the respondent's country, the cutoff point here is the mean height of the parental leave (1747). The purpose of this is to see whether the preference of mothers to combine a particular type of employment with motherhood changes when they live in a country with either a high or low parental leave level. Decreases of B-coefficients for self-employment and unemployment when moving from model 5a (low parental leave) to model 5b (high parental leave) would support hypothesis 4.

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[5] This is supported in the previous section: "Bivariate analysis"

In model 6, I split the sample on "partner status" and compute the regression for each of the values for this variable. Here my expectation is that the B-coefficients for self-employment and unemployment increase when moving from model 4 to model 6a (no partner) and 6c (partner with income), since I expect women without a partner or a partner with an income to be more likely to combine motherhood with either self-employment and unemployment. The opposite should be the case when moving from model 4 to model 6b (partner without income), my expectation is that women with an unemployed partner are more likely to be wage employed. In table 9 the buildup for the model is summarized.

Table 9. Model build-up

N=4585[6]	1	2	3	4	5a[7] (Low parental leave)	5b (High parental leave)	6a[8] (No partner)	6b (Partner without income)	6c (Partner with income)
Type of employment	X	X	X	X	X	X	X	X	X
Part/full-time	-	X	-	X	X	X	X	X	X
Job autonomy	-	-	X	X	X	X	X	X	X
Age	X	X	X	X	X	X	X	X	X
Education	X	X	X	X	X	X	X	X	X
Religiosity	X	X	X	X	X	X	X	X	X
Country	X	X	X	X	-	-	X	X	X

4.2.2.1 Results of the logistic regression analysis

In the next table the findings of all models are summarized. Important to note is that the reference category is the group with the highest frequency. To show how much of the variance is explained by the actual model the Nagelkerke R^2 is used. In table 10 the B-coefficient, the standard error (between brackets), the statistical significance level and the Nagelkerke R^2 is presented. The B-coefficient represents the logit chance of Y=1 happening, compared to the chance of Y=0 happening. The odds ratio can be found by computing $e^{\text{B-coefficient}}$.

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[6] This is the initial starting point of this analysis, some cases will get excluded in later paragraphs

[7] The regression model will be conducted for both types of parental leave, to estimate the interaction effect, the country control is left out for these models for reasons I will discuss in that particular section

[8] The regression model will be conducted for all values for partner effect to estimate the effect of this variable

Table 10. Regression results (part 1)

	N=4585	1 B (se)		2 B (se)	
	Constant	1,162***	(0,205)	1,001***	(0,207)
Type of employment	Self-employed	0,092	(0,111)	0,061	(0,113)
	Unemployed	0,722***	(0,193)	0,894***	(0,194)
	Job autonomy	-		-	
	Part-time	-		0,663***	(0,078)
Controls	Age	-0,029***	(0,005)	-0,030***	(0,005)
	Education Low	0,004	(0,063)	-0,042	(0,064)
	Religious	0,347***	(0,066)	-0,322***	(0,067)
Control: Country (Ireland is reference)	AT	-0,685***	(0,147)	-0,659***	(0,149)
	BE	-0,065	(0,157)	-0,015	(0,159)
	CZ	-0,393***	(0,143)	-0,197	(0,146)
	CH	-0,340**	(0,169)	-0,392**	(0,171)
	DK	0,176	(0,170)	0,308*	(0,172)
	DE	-0,370***	(0,137)	-0,342**	(0,139)
	EE	0,113	(0,147)	0,280*	(0,149)
	NL	0,086	(0,147)	-0,014	(0,149)
	FI	-0,087	(0,156)	0,032	(0,158)
	FR	0,161	(0,151)	0,295*	(0,153)
	NO	-0,163	(0,170)	-0,070	(0,172)
	PL	-0,296*	(0,156)	-0,101	(0,159)
	SE	0,217	(0,160)	0,331**	(0,162)
	SI	-0,678***	(0,205)	-0,485***	(0,181)
Nagelkerke pseudo R²		0,045		0,066	

*p<0,1 **p<0,05 ***p<0,01 (2-sided)

The coefficients for model 1 differ quiet largely from each other. The constant is highly significant but is of little interest for this particular paper. The constant is the intercept with the Y-axis and basically tells us what the chance is when all other variables are 0. This however means that the reference categories are also part of this constant. Just to illustrate what the constant means in this example is that wage-employed, high-educated and non-religious women from Ireland have 3,196 ($e^{1,162}$) higher predicted odds of being a mother compared to non-mother.

Now to the actual coefficients of interest. Type of employment is the only included independent variable. Since the wage-employed group is bigger compared to the self-employed and the unemployed group, the wage-employed are the reference. Unfortunately the self-employed have a statically insignificant coefficient (p=0,092). The self-employed do not have a statically higher chance to be a mother compared to the wage-employed. Unemployment has a B-coefficient (+0,722) which is statistically significant (p<0,01). The unemployed therefore have a higher chance of being a mother and it is quite substantial; an odds ratio of 2,06 ($e^{0,722}$), meaning that for all unemployed non-mothers there are 2,06 unemployed mothers. Since the unemployed have a higher B-coefficient than the self-employed and this coefficient is insignificant, we can deduct that self-employed women are less-likely to be a mother compared to the unemployed. This is in line with the second (b) part of hypothesis 1.

Although of little interest in this paper, the control variables seem to have a lot of influence of the dependent variable. This is especially true for religiosity and the home country. The home country variable is interesting because Ireland's coefficient seems to be relatively high up the spectrum of B-coefficients for countries. Meaning that women in Ireland are much more likely to have children than comparable women in Austria (-0,685) and Slovenia (-0,678). In which country a woman lives in seems to be a good predictor for motherhood. Religious women are also more likely to have children compared to non-religious women.

In model 2; working hours is added as a dummy part-time (5-30h) or full-time (>30h). The B-coefficient for the self-employment is still not statically different in relation to the constant. When adding working hours to the equation something interesting happens. When we compare it to model 1, the gap between the unemployed (0,894) and self-employed and wage-employed gets bigger. Coming down to the observation that fulltime employed women are less likely to be a mother compared to the entire group of employed women. This is supported by the actual B-coefficient for part-time employment itself, which is positive (+0,663) and significant (p<0,01).

The explanatory power of this model is higher than model 1. The Nagelkerke pseudo R^2 has risen from 0,045 (model 1) to 0,066. The latter indicating that this model predicts motherhood better than model 1. The addition of part-time work is for that reason a justified inclusion.

Now this is a good moment to reflect on hypothesis 3. In that hypothesis I stated that the relationship between type of employment is partially explained by working hours. The direct effect of self-employed on motherhood is nonexistent. However, part-time employment seems to be a good, predictor for motherhood, combined with the finding in section 4.2.1.2, that part-time work is relatively more frequently the mode of working hours for the self-employed (28,8%) compared to the wage-employed (24,1%). The latter two statements combined indicate that although it does not explain the relationship between type of employment and motherhood directly, self-employed women are more often mother, because they work part-time more often (compared to the wage-employed).

You might have noticed that I tested hypothesis 3 before hypothesis 2. The reason why hypothesis 3 is tested before hypothesis 2 (job autonomy) is one with consequences. The expectation written down in hypothesis 2 is about job autonomy. But, job autonomy is only relevant for the employed, not in the slightest for the unemployed, since they have no job and for this reason alone a score for job autonomy would be meaningless for them. This is the main reason why unemployed women were attributed a missing value. The latter has consequences for the remainder of the regression analysis, they will simply not be included in the models when job autonomy is also included. Practically meaning that the unemployed females will be excluded for models 3 and 4, since job autonomy is included in these two upcoming models. The latter is off course a pity, but it is not that big of a miss. The B-coefficients for unemployment, have proven in earlier models (1 and 2) that the relationship is as expected and significant. Females in unemployment are more likely to be a mother compared to women in wage-employment and self-employment. Coming down to the statement that at least part b of hypothesis 1 is true. Now for model 3 and model 4, table 11 is created which is in a similar style as table 10, with the only exception that unemployed females are not included. Model 3 is primarily used to assess the correctness of hypothesis 2. Model 4 is used as an overall check, to see how the coefficients and variables behave when adding all theorized predictors.

Table 11. Regression results (part 2)

|	N=4444	3 B (se)		4 B (se)	
	Constant	1,089***	(0,212)	0,901***	(0,215)
Type of employment	Self-employed	0,047	(0,116)	-0,001	(0,118)
	Job autonomy	0,014	(0,011)	0,019*	(0,011)
	Part-time	-		0,678***	(0,078)
Controls	Age	-0,029***	(0,005)	-0,030***	(0,005)
	Education Low	0,016	(0,065)	-0,026	(0,066)
	Religious	0,342***	(0,067)	0,315***	(0,068)
Control: Country (Ireland is reference)	AT	-0,777***	(0,151)	-0,682***	(0,152)
	BE	-0,054	(0,161)	-0,005	(0,163)
	CZ	-0,391***	(0,147)	-0,176	(0,150)
	CH	-0,400**	(0,174)	-0,460***	(0,176)
	DK	0,159	(0,174)	0,290*	(0,176)
	DE	-0,388***	(0,141)	-0,365**	(0,143)
	EE	0,089	(0,150)	0,261*	(0,152)
	NL	0,074	(0,150)	-0,033	(0,153)
	FI	-0,096	(0,159)	0,023	(0,161)
	FR	0,138	(0,155)	0,274*	(0,157)
	NO	-0,190	(0,173)	-0,101	(0,175)
	PL	-0,304*	(0,159)	-0,093	(0,162)
	SE	0,193	(0,163)	0,306*	(0,153)
	SI	-0,616***	(0,184)	-0,410**	(0,187)
Nagelkerke pseudo R²		0,040		0,062	

*p<0,1 **p<0,05 ***p<0,01 (2-sided)

In model 3 job autonomy is added to the equation and working hours is left out. The B-coefficient for self-employment is statistically (highly) insignificant, coming down to the observation that self-employed and wage-employed women are even likely to be a mother. The B-coefficient for job-autonomy however is on the borderline of being significant, therefore model 4 will give additional information on the basis on which I will conclude whether or not hypothesis 2 is accepted.

Moving over to model 4, the B-coefficient for self-employment is still insignificant. The B-coefficient for job autonomy (0,019) is significant and has the "right" (positive) direction. The overall effect however is limited since the B-coefficient is relatively low and the scale ranges from 0 till 10. Meaning that part-time employment (0,678), contributes more to the likelihood of motherhood than what job autonomy maximally (0,019 x 10= 0,190) can contribute to the likeliness of being a mother. Since there was no relationship between self-employment and motherhood directly, job autonomy does not partially explain this relation. Hypothesis 2 therefore is rejected. What we can see however is that job autonomy contributes to having children and (section 4.2.1.2) that the mean for job autonomy is higher for the self-employed (9,25) compared to the wage-employed (6,06).

We can conclude that self-employment has no direct effect but does has an indirect (positive) effect on motherhood. The following two findings combined will explain why this is the case: (1) job autonomy and working hours are both statistical significant predictors of motherhood and (2) the finding (in 4.2.1.2) that self-employment houses the predictors, job autonomy and working hours, relatively more often than that wage-employment does. In figure 3, the causal path between self-employment and motherhood is schematically represented. Important to not with this figure is that the plus signs are in comparison to wage-employment.

Figure 3. Confirmed relationship(s)
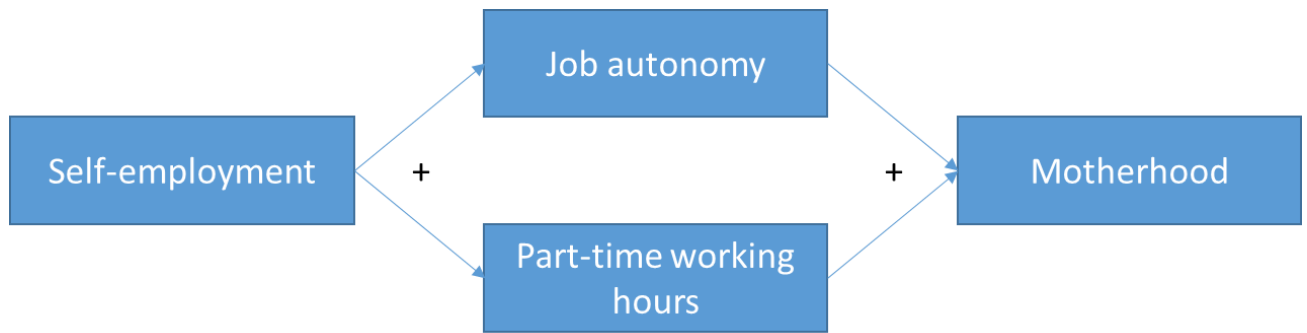
In the next paragraphs unemployment is added as a factor again, for two reasons. The first one is that I do not expect the interaction effects to have any influence on job autonomy at all and for that reason can be left out. The other reason is that it is necessary to include unemployment in order to be able to compare the interaction effect on wage-employment and self-employment with a "reference point"[9].

The goal of the next paragraph, accompanying table 12, is to analyze whether parental leave alters the relationship between type of employment and motherhood. Model 5a only includes females which are living in a country with low parental leave (<1747)[10], subsequently model 5b only includes females living in a country with high parental leave (>1747). The control variable, country, will be left out of the next model (5a and 5b). This is due to the fact that parental leave is a country characteristic and it therefore could cause multicollinearity issues.

Table 12. Regression results for final model when also controlling for "low and high parental leave"

		5a B (se)	5b B (se)
	Constant	0,450* (0,235)	1,749*** (0,286)
Type of employment	Self-employed	-0,003 (0,148)	0,033 (0,170)
	Unemployed	0,734*** (0,266)	0,966*** (0,281)
	Part-time	0,788*** (0,091)	0,347*** (0,126)
Controls	Age	-0,017*** (0,006)	-0,047*** (0,008)
	Education Low	-0,220*** (0,081)	-0,057 (0,094)
	Religious	0,288*** (0,080)	0,204** (0,094)
Nagelkerke pseudo R²		0,052	0,045
N=		2641	1944

*p<0,1 **p<0,05 ***p<0,01 (2-sided)

For this interaction effect we are especially interested in the changes of B-coefficients for type of employment (self-employment and unemployment). What we can see is that the B-coefficient for unemployment rises when moving from women living in low parental leave countries to women living in high parental leave countries. This means that when moving from model 5a to model 5b, the chance of the unemployed being a mother increases compared to the wage-employed and self-employed. This is the opposite of what was expected and written down in hypothesis 4. Therefore, we conclude that the height of the parental leave does not alter the relationship between type of employment and motherhood

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[9] Since it is already established that there is no significant difference between the self- and wage- employed when it comes to the likelihood of them being a mother

[10] The cutoff point is the average height of "parental leave" for this particular sample

in the expected way. As a matter of fact, the complete opposite might be true; the lower the parental leave the stronger the relationship between wage-employment and motherhood.

Then there is only one relationship and related hypothesis left to examine. In table 13 relevant output of the regression analysis is presented. In model 6a only females without a partner are included. In model 6b only females with a partner with no income are included. Finally, in model 6c only females with a partner with income are included.

Table 13. Regression results for final model when also controlling for "type of partner"

		6a (No-partner) B (se)	6b (Partner without income) B (se)	6c (Partner with income) B (se)
	Constant	-1,427*** (0,388)	4,982*** (1,004)	2,733*** (0,293)
Type of employment	Self-employed	0,088 (0,254)	0,767 (0,611)	-0,047 (0,137)
	Unemployed	1,264*** (0,292)	0,965 (0,671)	1,012*** (0,323)
	Part-time	0,750*** (0,158)	0,182 (0,326)	0,629*** (0,102)
Controls	Age	0,011 (0,010)	-0,105*** (0,023)	-0,059*** (0,007)
	Education Low	0,442*** (0,061)	-0,280 (0,308)	-0,216*** (0,081)
	Religious	0,285** (0,139)	0,108 (0,296)	0,298*** (0,086)
Control: Country (Ireland is reference)	AT	-1,053*** (0,275)	-1,250* (0,663)	-0,596*** (0,210)
	BE	-0,423 (0,329)	-0,256 (0,600)	-0,275 (0,214)
	CZ	-0,147 (0,266)	-1,916*** (0,646)	-0,460** (0,201)
	CH	-0,966*** (0,369)	-1,259 (0,832)	-0,492** (0,229)
	DK	-0,034 (0,360)	-0,442 (0,851)	0,066 (0,226)
	DE	-0,582** (0,271)	-1,114** (0,581)	-0,554*** (0,191)
	EE	0,043 (0,287)	-0,772 (0,665)	0,039 (0,204)
	NL	-0,463* (0,281)	-0,307 (0,732)	-0,094 (0,207)
	FI	-0,485 (0,357)	-1,856*** (0,569)	-0,066 (0,215)
	FR	0,261 (0,259)	-0,766 (0,654)	0,230 (0,218)
	NO	-0,833** (0,393)	-0,545 (0,889)	-0,212 (0,228)
	PL	-0,797** (0,373)	-0,504 (0,609)	-0,262 (0,213)
	SE	0,095 (0,303)	0,348 (0,901)	0,164 (0,222)
	SI	-1,622*** (0,509)	-1,186* (0,704)	-0,548** (0,237)
Nagelkerke pseudo R^2		0,119	0,245	0,087
N=		1268	281	3036

*p<0,1 **p<0,05 ***p<0,01 (2-sided)

In this section we are especially interested in in changes in the B-coefficients for unemployment and self-employment. Single women (6a) overall have less chance to be a mother compared to women with a partner. Women with a partner without income have a significant higher chance of being a mother. The B-coefficients for the self-employed are in none of the three groups statically different from the wage-employed. The B-coefficient for the unemployed is significant and positive in model 6a and 6c and not in 6b. Also when we compare model 6a and 6c to model 4 we can see an increase in the B-coefficient for the unemployed. This means that single mothers and mothers with an employed partner are more often unemployed. Mothers with an unemployed partner are not more likely to be unemployed than wage- or self-employed. The above discussed findings are somewhat in line with hypothesis 5. In these models, the changes in B-coefficients for unemployment are in the "correct" way, while the self-employed are not in the slightest way affected by the "partner effect". Coming down to the statement that the hypothesis themselves are rejected, but the expectations about the unemployed in hypothesis 5 are actually true.

5. Conclusion

In this paper I examined the effect of the type of employment and their characteristics on whether women will be more or less likely to have children. The main finding is that the type of employment does change the likelihood of women having children. In this paper three types of employment are included: unemployment, wage-employment and self-employment. The unemployed women are the most likely to be a mother. Self-employed women are more likely to be a mother compared to the wage-employed, but solely for the reason that self-employment offers more job autonomy and more flexibility when it comes to working hours. When levels of job autonomy and part-time work would be equal in both self- and wage-employment, no difference in motherhood-likelihood would be observed.

Most of the European countries cope with the question of how to finance the aging population. An increase in birthrates might prove an effective way to flatten the ageing. The findings in this paper suggest that women need flexibility and till some degree freedom in order to balance life and career. Increasing women's job autonomy and flexibility when it comes to working hours are possible measures to stimulate women to get children. This increase in the factors above might be achieved by supporting females to get into self-employment or have policy measure address these particular issues for the wage-employed.

Whether or not a women has a partner (with income), does not affect whether she will be more or less inclined to combine either self-employment or wage-employment with motherhood. The unemployed however are even more likely to be a single mother or be a mother with an employed partner, compared to the employed females. The expectation stated in the theory section was that when the parental leave is high the (positive) effect of self-employment and unemployment on having children would be dampened. This expectation was based on the fact that parental leave can offer wage-employed women more flexibility (in an somewhat artificial way) and for this reason might take away the merits of unemployment and self-employment. The results proof that the effect of parental leave is rather the opposite of this initial expectation. Although women are overall more likely to get children in these "high parental leave countries", the unemployed seem to be also more inclined to have children, compared both to their counterparts in "low parental leave countries" and the wage-employed and self-employed in general. Secondly, the likelihood of motherhood when being wage-employment is in no model statically different from the likelihood of self-employment women being a mother.

6. Discussion

This discussion serves two purposes. In this piece I will reflect on the internal and external validity of this paper and secondly recommendations for future research will be provided. The internal validity of this paper is troubled by a number of things. Because the time-order between type of employment and motherhood is unclear, this paper has become one of association rather that causality. This problem could be solved by doing a panel study. Unfortunately, because of the lack of time and monetary resources this was not possible in this particular paper.

Then there is the fact that the indicator for job autonomy is a rather narrow one. It asks the people to score their ability to decide about their daily activities on a 0 till 10 scale. Better, more objective job autonomy indicators could provide more accurate results.

A weak point of this study is the way I handled the interaction effects. I deliberately choose a less "elegant" way to test hypothesis 4 and 5. Since this is the first time I worked with logistic regression, interaction effects and dummies, time had to be cut somewhere when clocks started becoming my enemy. The number of cases used in this paper seem sufficient to generalize onto the entire population. The population here being, women between 25 and 47, not in education, in 15 European countries.

The control variables in this paper behaved in some occasions as a good predictor for motherhood. Especially the country variable showed a lot of variation and dispersion. It for some reason matters for

her chance of being a mother whether women comes from Austria or from Sweden. This is a direct indication that other contextual factors are at work. My recommendation for further research goes for that reason out to exploring and examining country policies and societal believes that might explain the variation in levels of motherhood.

A (latent) finding which I have not discussed in the results section, is that lower educated females have a higher chance to be a single mother compared to the higher educated. The second recommendation for further research is about this finding. Exploring and mapping the causes to why these lower educated females are more often single mother and what the consequences are for these females and society as a whole.

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Appendix

Appendix 1:

"Not completed ISCED level 1" is the first group, when starting with the least educated. "ISCED 1, completed primary education" is the second group. "Vocational ISCED 2C < 2 years, no access ISCED 3", "General/pre-vocational ISCED 2A/2B, access ISCED 3 vocational", "General ISCED 2A, access ISCED 3A general/all 3" and "Vocational ISCED 2A/2B, access ISCED 3 vocational" will all be reduced to the category "ISCED 2". The fourth category will be "ISCED 3" and consists out of the following; "Vocational ISCED 3C < 2 years, no access ISCED 5", "General ISCED 3 >= 2 years, no access ISCED 5", "General ISCED 3A/3B, access ISCED 5B/lower tier 5A", "General ISCED 3A, access upper tier ISCED 5A/all 5", "Vocational ISCED 3C >= 2 years, no access ISCED 5", "Vocational ISCED 3A, access ISCED 5B//lower tier 5A" and finally "Vocational ISCED 3A, access upper tier ISCED 5A/all 5". The fifth group "ISCED 4" will consist out of the following values: "General ISCED 4A/4B, access ISCED 5B/lower tier 5A", "General ISCED 4A, access upper tier ISCED 5A/all 5", "ISCED 4 programs without access ISCED 5", "Vocational ISCED 4A/4B, access ISCED 5B/lower tier 5A" and "Vocational ISCED 4A, access upper tier ISCED 5A/all 5". The sixth group "ISCED 5" will consist out of the following values: "ISCED 5A short, intermediate/academic/general tertiary below bachelor", "ISCED 5B short, advanced vocational qualifications", "ISCED 5A medium, bachelor/equivalent from lower tier tertiary", "ISCED 5A medium, bachelor/equivalent from upper/single tier tertiary", "ISCED 5A long, master/equivalent from lower tier tertiary" and finally "ISCED 5A long, master/equivalent from upper/single tier tertiary". The last group "ISCED 6" will consist of the group "ISCED 6, doctoral degree". The values "Other", "Refusal", "Don't know" and "No answer" will be treated as missing values. Since this variable is a control in my analysis, I am not too much interested in details regarding this variable. The purpose of this variable is just to prove that education does not alter the relationship between the variables of interest. Because it makes the analysis much more comprehendible, these 7 groups are further divided into 2 groups; "No/Lower Education" and "Higher Education".

Appendix 2:

Table 1. Frequencies of Dummies

	Weeks parental leave	% of previous earning	Low	High	Number of respondents
Austria	16	100	1600	-	334
Belgium	15	82% for first 30 days, 75% for the remainder	1153	-	276
Switzerland	14	80	1120	-	208
Czech Republic	28	70	-	1960	421
Denmark	18	100	-	1800	215
Germany	14	100	1400	-	422
Estonia	20	100	-	2000	350
Finland	18	70	1260	-	276
France	16	100	1600	-	317
Ireland	26	80	-	2080	477
Netherlands	16	100	1600	-	353
Norway	35	100	-	3500	210
Poland	26	100	-	2600	271
Sweden	14	80	1120	-	270
Slovenia	15	100	1500	-	185

Appendix 3:

	Table 2a. Frequencies of Control Variable Dummies			
	Control 2		Control 3	
N=4585	Low Education	High Education	Not-Religious	Religious
No	2450	2135	2275	2310
Yes	2135	2450	2310	2275

Appendix 4:

To use the data set go to http://www.europeansocialsurvey.org/data/download.html?r=7. Sign-up using your information, and download the spss file. Below my syntax is provided. To use it, copy it in the "syntax editor", rewrite the first command to have it select the ESS file on the computer. The first part of the syntax (until line 372), is used to create the needed data set to run the tests. Everything after line 372 is used to create different tables and other data. Enjoy:

* Encoding: UTF-8.

*** Taking only the variables of interrest out of the original ESS file **

GET

  FILE='C:\Users\Kevin\Downloads\ESS7e01.sav'

/KEEP gndr agea wkdcorga cntry edulvlb rlgblg emplrel wkhtot rshipa2 rshipa3 rshipa4 rshipa5 rshipa6 rshipa7 rshipa8 rshipa9 rshipa10 rshipa11 rshipa12 rshipa13

 yrbrn2 yrbrn3 yrbrn4 yrbrn5 yrbrn6 yrbrn7 yrbrn8 yrbrn9 yrbrn10 yrbrn11 yrbrn12 yrbrn13 pdwrkp edctnp uemplap uemplip dsbldp rtrdp cmsrvp hswrkp dngothp dngdkp dngnapp dngrefp dngnap edctn.

*** Filtering out males and females with an age not between 25 and 47 ***

FILTER OFF.

USE ALL.

SELECT IF (gndr = 2 & agea >= 25 & agea <= 47 & edctn = 0).

EXECUTE.

*** Creating a new variable which indicates wheter women have children below 12 living in the household ***

recode rshipa2 (66 77 88 99=sysmis) (else=0) into fam2_youngchild.

if (rshipa2=2 & yrbrn2 >= 2003) fam2_youngchild=1.

```
recode rshipa3 (66 77 88 99=sysmis) (else=0) into fam3_youngchild.
if (rshipa3=2 & yrbrn3 >= 2003) fam3_youngchild=1.


recode rshipa4 (66 77 88 99=sysmis) (else=0) into fam4_youngchild.
if (rshipa4=2 & yrbrn4 >= 2003) fam4_youngchild=1.


recode rshipa5 (66 77 88 99=sysmis) (else=0) into fam5_youngchild.
if (rshipa5=2 & yrbrn5 >= 2003) fam5_youngchild=1.


recode rshipa6 (66 77 88 99=sysmis) (else=0) into fam6_youngchild.
if (rshipa6=2 & yrbrn6 >= 2003) fam6_youngchild=1.


recode rshipa7 (66 77 88 99=sysmis) (else=0) into fam7_youngchild.
if (rshipa7=2 & yrbrn7 >= 2003) fam7_youngchild=1.


recode rshipa8 (66 77 88 99=sysmis) (else=0) into fam8_youngchild.
if (rshipa8=2 & yrbrn8 >= 2003) fam8_youngchild=1.


recode rshipa9 (66 77 88 99=sysmis) (else=0) into fam9_youngchild.
if (rshipa9=2 & yrbrn9 >= 2003) fam9_youngchild=1.


recode rshipa10 (66 77 88 99=sysmis) (else=0) into fam10_youngchild.
if (rshipa10=2 & yrbrn10 >= 2003) fam10_youngchild=1.


recode rshipa11 (66 77 88 99=sysmis) (else=0) into fam11_youngchild.
if (rshipa11=2 & yrbrn11 >= 2003) fam11_youngchild=1.


recode rshipa12 (66 77 88 99=sysmis) (else=0) into fam12_youngchild.
if (rshipa12=2 & yrbrn12 >= 2003) fam12_youngchild=1.


recode rshipa13 (66 77 88 99=sysmis) (else=0) into fam13_youngchild.
if (rshipa13=2 & yrbrn13 >= 2003) fam13_youngchild=1.
exe.
```

compute atleastoneyounghild =0.

if (fam2_youngchild=1 | fam3_youngchild=1 | fam4_youngchild=1 | fam5_youngchild=1 | fam6_youngchild=1 | fam7_youngchild=1 | fam8_youngchild=1 |

fam9_youngchild=1 | fam10_youngchild=1 | fam11_youngchild=1 | fam12_youngchild=1 | fam13_youngchild=1) atleastoneyounghild = 1.

exe.

compute N_youngchildren = sum(fam2_youngchild to fam13_youngchild).

*** Reducing the amount of categories in the variable "Highest level of education" ***

RECODE edulvlb (113=1) (800=6) (212 thru 225=2) (226 thru 325=3) (410 thru 425=4) (500 thru 725=5).
EXECUTE.

RECODE edulvlb (0 thru 3=1) (4 thru 7=0) (1000 thru Highest=SYSMIS) INTO EducationLow.
VARIABLE LABELS EducationLow 'EducationLow'.
EXECUTE.

RECODE edulvlb (1000 thru Highest=SYSMIS) (4 thru 7=1) (0 thru 3=0) INTO EducationHigh.
VARIABLE LABELS EducationHigh 'EducationHigh'.
EXECUTE.

*** Making "Working in family buisiness" also be marked as "self-employed" within the "Employment Relation" variable ***

RECODE emplrel (3=2).
EXECUTE.

*** and dummyfying this "Employment Relation" variable ***

RECODE emplrel (6=5).
EXECUTE.

RECODE emplrel (1=1) (2=0) (5=0) (7 thru Highest=SYSMIS) INTO Employee.

VARIABLE LABELS Employee 'Regular Employed'.

EXECUTE.

RECODE emplrel (2=1) (1=0) (5=0) (7 thru Highest=SYSMIS) INTO SelfEmployed.

VARIABLE LABELS SelfEmployed 'Self-Employed'.

EXECUTE.

*** Creating dummys for parttime, fulltime and unemployed women ***

RECODE wkhtot (666=400).

EXECUTE.

RECODE wkhtot (5 thru 30=1) (31 thru 300=0) (400=0) (700 thru Highest=SYSMIS) INTO Parttime.

VARIABLE LABELS Parttime 'Parttime'.

EXECUTE.

RECODE wkhtot (31 thru 300=1) (5 thru 30=0) (400=0) (700 thru Highest=SYSMIS) INTO Fulltime.

VARIABLE LABELS Fulltime '>30'.

EXECUTE.

RECODE wkhtot (400=1) (5 thru 300=0) (700 thru Highest=SYSMIS) INTO Unemployed.

VARIABLE LABELS Unemployed 'Unemployed'.

EXECUTE.

RECODE Parttime (1=1) INTO PARTFULLTIME.

VARIABLE LABELS PARTFULLTIME '1Partime2Fulltime'.

EXECUTE.

RECODE Fulltime (1=2) INTO PARTFULLTIME.

VARIABLE LABELS PARTFULLTIME '1Partime2Fulltime'.

EXECUTE.

RECODE Unemployed (1=0) INTO Employee.
VARIABLE LABELS Employee 'Regular Employed'.
EXECUTE.

RECODE Unemployed (1=0) INTO SelfEmployed.
VARIABLE LABELS SelfEmployed 'Self-Employed'.
EXECUTE.

RECODE Employee (1=0) INTO Unemployed.
VARIABLE LABELS Unemployed 'Unemployed'.
EXECUTE.

RECODE SelfEmployed (1=0) INTO Unemployed.
VARIABLE LABELS Unemployed 'Unemployed'.
EXECUTE.

*** Creating dummys for religous ***

RECODE rlgblg (1=1) (2=0) (4 thru HIGHEST=SYSMIS) INTO Religious.
VARIABLE LABELS Religious 'Yes'.
EXECUTE.

RECODE rlgblg (1=0) (2=1) (4 thru HIGHEST=SYSMIS) INTO NOTReligious.
VARIABLE LABELS NOTReligious 'Yes'.
EXECUTE.

*** Making unemployed women score missing for job autonomy ***

DO IF (Unemployed = 1).
RECODE wkdcorga (ELSE=SYSMIS).
END IF.
EXECUTE.

*** Creating dummys for " no partner", "partner without paid work" and "partner with paid work" ***

RECODE pdwrkp (1=1) INTO PartnerWithPaidWork.

VARIABLE LABELS PartnerWithPaidWork 'PWithPW'.

EXECUTE.

RECODE dngnapp (1=1) INTO NoPartner.

VARIABLE LABELS NoPartner 'NP'.

EXECUTE.

RECODE edctnp (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE uemplap (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE uemplip (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE dsbldp (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE rtrdp (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE cmsrvp (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE hswrkp (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE dngothp (1=1) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE PartnerWithPaidWork (1=0) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE NoPartner (1=0) INTO Partnerwithoutpaidwork.

VARIABLE LABELS Partnerwithoutpaidwork 'PWPW'.

EXECUTE.

RECODE Partnerwithoutpaidwork (1=0) INTO PartnerWithPaidWork.

VARIABLE LABELS PartnerWithPaidWork 'PWithPW'.

EXECUTE.

RECODE NoPartner (1=0) INTO PartnerWithPaidWork.

VARIABLE LABELS PartnerWithPaidWork 'PWithPW'.

EXECUTE.

RECODE Partnerwithoutpaidwork (1=0) INTO NoPartner.

VARIABLE LABELS NoPartner 'NP'.

EXECUTE.

RECODE PartnerWithPaidWork (1=0) INTO NoPartner.

VARIABLE LABELS NoPartner 'NP'.

EXECUTE.

*** After manually constructing the parental leave levels of the countries, these were linked to the corresponding countries ***

RECODE cntry ('AT'=1600) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('BE'=1153) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('CZ'=1960) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('DK'=1800) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('DE'=1400) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('CH'=1120) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('EE'=2000) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('IE'=2080) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('NL'=1600) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('FI'=1260) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('FR'=1600) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('PL'=2600) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('NO'=3500) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('SE'=1120) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

RECODE cntry ('SI'=1500) INTO ParentalLeave.

VARIABLE LABELS ParentalLeave 'Cummulative Parental Leave (weeks * %)'.

EXECUTE.

*** Sorting into highlow***

RECODE ParentalLeave (0 thru 1747=1) (ELSE=0) INTO LOW.

VARIABLE LABELS LOW '<1747,01'.

EXECUTE.

RECODE ParentalLeave (1748 thru 10000=1) (ELSE=0) INTO HIGH.

VARIABLE LABELS HIGH '>1747,01'.

EXECUTE.

*** creating dummies out of country variable ****

RECODE cntry ('AT'=1) (ELSE=0) INTO AUSTRIA.

VARIABLE LABELS AUSTRIA '1YES'.

EXECUTE.

RECODE cntry ('BE'=1) (ELSE=0) INTO BELGIUM.

VARIABLE LABELS BELGIUM '1YES'.

EXECUTE.

RECODE cntry ('CZ'=1) (ELSE=0) INTO CZECH.

VARIABLE LABELS CZECH '1YES'.

EXECUTE.

RECODE cntry ('CH'=1) (ELSE=0) INTO SWITSERLAND.

VARIABLE LABELS SWITSERLAND '1YES'.

EXECUTE.

RECODE cntry ('DK'=1) (ELSE=0) INTO DENMARK.

VARIABLE LABELS DENMARK '1YES'.

EXECUTE.

RECODE cntry ('DE'=1) (ELSE=0) INTO GERMANY.

VARIABLE LABELS GERMANY '1YES'.

EXECUTE.

RECODE cntry ('EE'=1) (ELSE=0) INTO ESTONIA.

VARIABLE LABELS ESTONIA '1YES'.

EXECUTE.

RECODE cntry ('IE'=1) (ELSE=0) INTO IRELAND.
VARIABLE LABELS IRELAND '1YES'.
EXECUTE.

RECODE cntry ('NL'=1) (ELSE=0) INTO NETHERLANDS.
VARIABLE LABELS NETHERLANDS '1YES'.
EXECUTE.

RECODE cntry ('FI'=1) (ELSE=0) INTO FINLAND.
VARIABLE LABELS FINLAND '1YES'.
EXECUTE.

RECODE cntry ('FR'=1) (ELSE=0) INTO FRANCE.
VARIABLE LABELS FRANCE '1YES'.
EXECUTE.

RECODE cntry ('NO'=1) (ELSE=0) INTO NORWAY.
VARIABLE LABELS NORWAY '1YES'.
EXECUTE.

RECODE cntry ('PL'=1) (ELSE=0) INTO POLAND.
VARIABLE LABELS POLAND '1YES'.
EXECUTE.

RECODE cntry ('SE'=1) (ELSE=0) INTO SWEDEN.
VARIABLE LABELS SWEDEN '1YES'.
EXECUTE.

RECODE cntry ('SI'=1) (ELSE=0) INTO SLOVENIA.
VARIABLE LABELS SLOVENIA '1YES'.
EXECUTE.

*** Deleting all cases with missing values; for some unknown reason jobautonomy (wkdcorga) and other variables do not work with this command so i computed an additional command ***

FILTER OFF.

USE ALL.

SELECT IF not (wkdcorga > 10 & Employee = 1).

EXECUTE.

FILTER OFF.

USE ALL.

SELECT IF not (wkdcorga > 10 & SelfEmployed = 1).

EXECUTE.

select if not (sysmis(atleastoneyounghild)) & not (sysmis(Employee)) & not (sysmis(SelfEmployed)) & not (sysmis(Unemployed)) & not (sysmis(EducationLow))

& not (sysmis(EducationHigh)).

select if not (sysmis(Parttime)) & not (sysmis(Fulltime)) & not (sysmis(Religious)) & not (sysmis(NOTReligious)) & not (sysmis(PartnerWithPaidWork)) & not (sysmis(NoPartner))

& not (sysmis(Partnerwithoutpaidwork)) & not (sysmis(ParentalLeave)).

*** Data for table 1 & 2***

FREQUENCIES VARIABLES=atleastoneyounghild SelfEmployed Parttime agea wkdcorga

   EducationLow EducationHigh Employee Unemployed Fulltime Religious PartnerWithPaidWork NOTReligious

   NoPartner Partnerwithoutpaidwork ParentalLeave

 /ORDER=ANALYSIS.

FREQUENCIES VARIABLES=AUSTRIA BELGIUM CZECH SWITSERLAND DENMARK GERMANY ESTONIA IRELAND NETHERLANDS

   FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /ORDER=ANALYSIS.

*** DATA for table 3 ***

DESCRIPTIVES VARIABLES=agea wkdcorga atleastoneyounghild Employee SelfEmployed EducationLow

   EducationHigh Unemployed Religious NOTReligious PartnerWithPaidWork Parttime Partnerwithoutpaidwork

   NoPartner ParentalLeave Fulltime

 /STATISTICS=MEAN STDDEV MIN MAX

/MISSING=INCLUDE.

FREQUENCIES VARIABLES= HIGH LOW

 /ORDER=ANALYSIS.

DATA for section 4.2.1.1

CROSSTABS

 /TABLES=emplrel BY atleastoneyounghild

 /FORMAT=AVALUE TABLES

 /STATISTICS=CHISQ CC PHI LAMBDA

 /CELLS=COUNT EXPECTED ROW COLUMN TOTAL SRESID

 /COUNT ROUND CELL

 /METHOD=EXACT TIMER(5).

*** DATA for section 4.2.1.2***

*** first subsection ***

USE ALL.

COMPUTE filter_$=(Employee=1).

VARIABLE LABELS filter_$ 'Employee=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

DESCRIPTIVES VARIABLES= wkdcorga

/STATISTICS=mean STDDEV min max

/missing=INCLUDE.

FILTER OFF.

USE ALL.

EXECUTE.

USE ALL.

COMPUTE filter_$=(SelfEmployed=1).

VARIABLE LABELS filter_$ 'SelfEmployed=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

DESCRIPTIVES VARIABLES= wkdcorga

/STATISTICS=mean STDDEV min max

/missing=INCLUDE.

FILTER OFF.

USE ALL.

EXECUTE.

second subsection, first it is neccesarry to filter out unemployed women, since they score 0's on part-time full-time and might alter the significance levels

Table 6

USE ALL.

COMPUTE filter_$=(Unemployed=0).

VARIABLE LABELS filter_$ 'Unemployed=0 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

CROSSTABS

  /TABLES=emplrel BY PARTFULLTIME

  /FORMAT=AVALUE TABLES

  /STATISTICS=CHISQ CC PHI LAMBDA

  /CELLS=COUNT EXPECTED ROW COLUMN TOTAL SRESID

  /COUNT ROUND CELL

  /METHOD=EXACT TIMER(5).

FILTER OFF.

USE ALL.

EXECUTE.

Text beneath table 6 (SE work more hours on average)

USE ALL.

COMPUTE filter_$=(Employee=1).

VARIABLE LABELS filter_$ 'Employee=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

DESCRIPTIVES VARIABLES= wkhtot

/STATISTICS=mean STDDEV min max

/missing=INCLUDE.

FILTER OFF.

USE ALL.

EXECUTE.

USE ALL.

COMPUTE filter_$=(SelfEmployed=1).

VARIABLE LABELS filter_$ 'SelfEmployed=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

```
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.


DESCRIPTIVES VARIABLES= wkhtot
/STATISTICS=mean STDDEV min max
/missing=INCLUDE.


FILTER OFF.
USE ALL.
EXECUTE.



*** DATA for section 4.2.1.3 ***
*** TABLE 7***


USE ALL.
COMPUTE filter_$=(atleastoneyounghild=0).
VARIABLE LABELS filter_$ 'atleastoneyounghild=0 (FILTER)'.
VALUE LABELS filter_$ 1 'Not Selected' 0 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.


DESCRIPTIVES VARIABLES= wkdcorga
/STATISTICS=mean STDDEV min max
/missing=INCLUDE.


FILTER OFF.
USE ALL.
EXECUTE.


USE ALL.
COMPUTE filter_$=(atleastoneyounghild=1).
```

VARIABLE LABELS filter_$ 'atleastoneyounghild=1 (FILTER)'.

VALUE LABELS filter_$ 1 'Not Selected' 0 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

DESCRIPTIVES VARIABLES= wkdcorga

/STATISTICS=mean STDDEV min max

/missing=INCLUDE.

FILTER OFF.

USE ALL.

EXECUTE.

*** TABLE 8***

USE ALL.

COMPUTE filter_$=(Unemployed=0).

VARIABLE LABELS filter_$ 'Unemployed=0 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

CROSSTABS

 /TABLES= PARTFULLTIME BY atleastoneyounghild

 /FORMAT=AVALUE TABLES

 /STATISTICS=CHISQ CC PHI LAMBDA

 /CELLS=COUNT EXPECTED ROW COLUMN TOTAL SRESID

 /COUNT ROUND CELL

 /METHOD=EXACT TIMER(5).

FILTER OFF.

USE ALL.

EXECUTE.

*** Retrieving data for table 10***

*** Table 10model1 ***

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed agea EducationLow religious AUSTRIA BELGIUM CZECH SWITSERLAND

   DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

*** model 2***

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed Parttime agea EducationLow religious AUSTRIA BELGIUM CZECH SWITSERLAND

   DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

*** table 11 model 3***

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed wkdcorga agea EducationLow religious AUSTRIA BELGIUM CZECH SWITSERLAND

   DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

model 4

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed Parttime wkdcorga agea EducationLow religious AUSTRIA BELGIUM CZECH SWITSERLAND

DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

*** table 12 5a***

USE ALL.

COMPUTE filter_$=(edctn=0 & LOW=1).

VARIABLE LABELS filter_$ 'edctn=0 & LOW=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed Parttime agea EducationLow religious

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

FILTER OFF.
USE ALL.
EXECUTE.

*** 12 5b ***

USE ALL.

COMPUTE filter_$=(edctn=0 & HIGH=1).

VARIABLE LABELS filter_$ 'edctn=0 & HIGH=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

  /METHOD=ENTER SelfEmployed Unemployed Parttime agea EducationLow religious

  /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

FILTER OFF.

USE ALL.

EXECUTE.

*** Table 13 6a ****

USE ALL.

COMPUTE filter_$=(edctn=0 & NoPartner=1).

VARIABLE LABELS filter_$ 'edctn=0 & NoPartner=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

  /METHOD=ENTER SelfEmployed Unemployed Parttime agea EducationLow religious AUSTRIA
BELGIUM CZECH SWITSERLAND

    DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY
POLAND SWEDEN SLOVENIA

  /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

FILTER OFF.

USE ALL.

EXECUTE.

*** 6b***

USE ALL.

COMPUTE filter_$=(edctn=0 & Partnerwithoutpaidwork=1).

VARIABLE LABELS filter_$ 'edctn=0 & Partnerwithoutpaidwork=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed Parttime agea EducationLow religious AUSTRIA BELGIUM CZECH SWITSERLAND

   DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

FILTER OFF.

USE ALL.

EXECUTE.

*** 6c ***

USE ALL.

COMPUTE filter_$=(edctn=0 & PartnerWithPaidWork=1).

VARIABLE LABELS filter_$ 'edctn=0 & PartnerWithPaidWork=1 (FILTER)'.

VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.

FORMATS filter_$ (f1.0).

FILTER BY filter_$.

EXECUTE.

LOGISTIC REGRESSION VARIABLES atleastoneyounghild

 /METHOD=ENTER SelfEmployed Unemployed Parttime agea EducationLow religious AUSTRIA BELGIUM CZECH SWITSERLAND

   DENMARK GERMANY ESTONIA NETHERLANDS FINLAND FRANCE NORWAY POLAND SWEDEN SLOVENIA

 /CRITERIA=PIN(.05) POUT(.10) ITERATE(20) CUT(.5).

FILTER OFF.

USE ALL.

EXECUTE.