Parental Leave Policies and Gender Equality: A Cross-Country Comparative Analysis

Master’s Degree Programme in Inequalities, Interventions and New Welfare State

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Master's thesis

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Abstract

This study investigates the relationship between parental leave policies and maternal employment among mothers with children aged 0-2 years in 26 OECD countries, with a particular emphasis on maternity leave duration, paternity leave uptake and men's share of parental leave. Descriptive statistics, multiple regression models, and scatter plots with quadratic fits were used in the analysis which shows a non-linear (inverted U-shaped) relationship between maternity leave duration and maternal employment rate. This suggests that highest rates of maternal employment are associated with moderate leave durations roughly 50-70 weeks. Likewise, paternity leave has a favourable but diminishing effect on maternal employment rate, with most favourable effects occurring between 8 and 15 weeks. Additionally, data from 12 countries show that a higher share of men taking parental leave is correlated with increased maternal employment rates, highlighting the importance of shared caregiving responsibilities. According to the findings, moderate leave policies may better encourage mothers to enter the workforce, hence promoting more gender equality in the workplace. The study suggests that gender equality in the workforce and in caregiving duties can be improved by encouraging fathers to take leave and making sure that parenting responsibilities are distributed more fairly. In order to promote shared caregiving and balanced maternal employment, policymakers are urged to create inclusive, well-paid and non-transferable paternity leave policies.

Keywords: maternity leave, paternity leave, men's share leave, female labour force participation, gender equality

1. Introduction

This study examines how parental leave policies relate to gender equality focusing on their impact on women's participation in the workforce and the balance of responsibilities between men and women at work and at home. With a focus on maintaining a balance between men's and women's participation in the job market and parental responsibilities, gender equality has emerged as an important goal in many countries for policymakers across the globe in recent years. Taking leave from work to care for children indicates the purpose of parental leave system, which aims not only to support a more balanced division of caregiving but also to assist parents, enhance child wellbeing as well as promote women's participation in the labor market (Abrams, 2022). However, there is a great variation in the way these parental leave policies are formulated and put into practice, which may either foster gender equality or hinder it across all over countries. While some policies promote women labor force participation and support a more equitable distribution of caregiving responsibilities, others could perpetuate conventional gender norms. These differences emphasize how crucial it is to look at how policy structures influence gender equality in various nations (Bettelli, 2020; Low & Sánchez-Marcos, 2015).

Policies regarding parental leave, particularly maternity leave, are crucial in striking a balance between duties to one's family and one's job. For a predetermined amount of time, these plans usually provide work protection, enabling parents to get back to their prior positions. Their effects on the labor market, however, are complicated and differ from country to country. Taking longer maternity leave from full-time job means spending more time away from work which can lead to lower earnings and reduced labor market participation. The long-term effects are nuanced, as extended leave can provide mothers with valuable time to prepare for job continuity but may also devalue skills and make it more difficult to find new employment (Baker & Milligan, 2008; Rossin-Slater et al., 2013). Generous parental leave policies can also lead to statistical discrimination against women, particularly in high-level positions, due to employers' concerns about extended job absences and reduced flexibility. This can limit women's career progression and perpetuate gender inequalities in the labor market (Farré, 2016).

Previous research has demonstrated that empirical evidence is mixed. For example, in Austria and Germany, prolonged leave reforms led to delays in workforce re-entry but did not significantly harm long-term employment or earnings (Lalive & Zweimüller, 2009). In

the U.S., unpaid leave under the Family and Medical Leave Act (FMLA) had minimal effects, while California's introduction of paid leave increased working hours and wages for mothers (Baum, 2003). In Europe, paid parental leave was associated with higher employment rates but lower long-term wages for women, with extended durations contributing to wage penalties (Ruhm, 1998).

This research conducts a cross-national comparative analysis to examine the complex relationship between parental leave policies and gender equality. Since the parental leave policies are most promptly important in the early years after childbirth, this study focuses on the employment of women with very young children. This research intends to explore associations between different aspects of parental leave policies and gender equality indicators using quantitative cross-country data on leave uptake and gender equality outcomes. The recommendation of this analysis is to give policymakers evidence-based suggestions for creating parental leave policies that assist both men and women in reaching a fair and balanced distribution of both professional and domestic responsibilities.

2. Previous Research

Parental leave policies serve as critical instruments for promoting gender equality in labor markets. This section reviews existing literature on the relationship between parental leave policies and gender equality, focusing on three key aspects: the effects of maternity leave, paternity leave, and shared parental leave on female LFP and maternal employment. Previous studies have examined the relationship between parental leave policies and female labor force participation rates.

2.1 Maternity Leave and Female Labor Force Participation

Due to declining birth rates over the last two decades, the global trend has turned toward longer duration and higher compensated maternity leave by which International Labor Organization (ILO) highlights a crucial factor in increasing female labor force participation and concerning prenatal health (ILO, 2014). Although a few studies point to possible disadvantages, lengthier maternity leave can promote higher female LFP. There are mixed results from empirical studies on the impact of extended maternity leave based on different country contexts. The present study emphasized that not only maternity leave is associated with female labor force participation but also paternity leave, female education,

men’s share of parental leave, public spending on childcare, enrollment of children in childcare facilities and so on are related to it.

An empirical study of Ahmed and Fielding (2019) indicated that while extended maternity leave increases female labor force participation, it may also maintain wage disparities and established gender norms. Longer maternity leave is linked to lower infant mortality and more interest in female labor force participation, according to studies conducted in Asian and African contexts whereas European contexts show different results especially focusing on moderate leave policies, that’s why cultural norms play a different role in different areas. Additionally, it has been discovered that maternity leave benefits increase fertility rates. Because mother get proper time to give to the children and take care of them, this prolonged effects give courage to take another child as they have protection of job. These results demonstrate the important relationships among maternal work, child welfare, and demographic patterns, highlighting the interdependence between parental leave regulations and wider socioeconomic consequences. Studies indicated that shorter maternity breaks less than a year tend to be advantageous for families, while longer leaves could be negative to women’s career disruption and their salaries (Rossin-Slater, 2017).

Another study showed that extending maternity leave entitlements has unanticipated impacts, including a decrease in women's employment chances, a decrease in formal employment, and less earnings for those of childbearing age relative to other age groups. This study found that 36-day extension of maternity leave in urban China between 2014 and 2016 resulted in a 5.7% income reduction among young women in official jobs and a 3.1 percentage point decline in employment and formal work participation for women of childbearing age (Liu et al., 2024).

Another article where Gupta et al. (2008) found that lengthy paid maternity leave had a detrimental influence on women's earnings in Nordic countries. Similar findings were made by several researchers who claimed that long maternity leave periods could negatively impact women's job and income (Olivetti & Petrongolo, 2017; Ruhm, 1998). Ejrnæs and Kunze (2013) used West German register data and made use of the expansionary family policy of the late 1980s and early 1990s to identify women, whose income decreased by 3 to 5.7% for every year of leave. After giving birth, they also noticed undesirable selectivity while returning to full-time employment. According to these results, other study suggests that extended maternity leave may discourage companies from hiring women of

childbearing age because they are unable to provide additional benefits to the company. This could lead to a rise in gender prejudices in the workplace and long-lasting labor market disparities. Extending paid leave has been found to positively influence female employment rates and the gender employment gap, though this effect is modest and remains significant as long as the total paid leave period does not exceed roughly two years. When paid leave exceeds this duration, the additional weeks tend to negatively impact both female employment and the gender employment disparity (OECD, 2013). So, moderate maternity leave is needed because a study on Switzerland's 2005 maternity leave reform found employers who already provided paid leave observed a rise in second-child births as a result of the more generous benefits, which made families feel more secure. Fertility behavior was same in companies without previous paid leave, but women's incomes increased as a result of fastest labor reentry. According to the report, there is a "trickle-down effect," whereby companies that already have maternity leave policies send the financial incentives to their staff for supporting (Girsberger et al., 2023). Based on literature reviews, the first research question of the present study focuses on:

RQ1: "Do countries with longer maternity leave duration have higher LFP rates of mothers of children aged 0-2?"

2.2 Paternity Leave and Female Labor Force Participation

Furthermore, studies such as those by Bettelli (2020) revealed that paternity leave policies, including paid paternity leave, father quotas and period of paid parental leave exclusively for fathers (which can't be transferred to the mother) are associated with a 4.9% increase in female labor force participation, suggesting that they support gender parity in the workforce. In addition, Farré and González (2019) disclosed that paternity leave positively influences mothers' labor force participation by encouraging shared childcare responsibilities between parents. However, it may also have a negative impact on fertility rates. Paternity leave makes fathers more aware of parenting a kid or made them want to invest more in one child rather than having multiple children. When fathers take additional childcare responsibilities due to paternity leave, mothers are more likely to remain in the employment that assists to increase female labor force participation rate. Furthermore, a study explored that paid paternity leave was linked to higher female labor force participation because it lowered the rate of depression among mothers and as result, mothers could focus on their economic sources and also enhanced fathers' mental health

by lowering 26% depression whether they took it and 24% even who intended to take (Barry et al., 2023). The second research question of the present study focuses on:

RQ2: "Do countries with longer paternity leave uptake have higher LFP rates of mothers of children aged 0-2?"

2.3 Share of men taking parental leave and maternal employment rates

The Nordic model has historically encouraged high labor force participation for both men and women as well as focusing strongly on gender equality. A book comparing Nordic OECD countries found that fathers in Finland are less likely to take leaves rather than fathers in Iceland, Norway and Sweden. These disparity in caregiving duties affects both female labor force participation and gender equality. For further progress, men must take a active role in childcare including paternity leave, in order to guarantee a more equitable division of labor and enhance women's status in the workforce (Lammi-Taskula, 2008). Another study highlighted the need of expanding parental leave by father for promoting workplace equality and altering management perspectives. Parental leave benefits both men and women when fathers utilize it because it becomes a norm rather than a threat to one's career (Ekberg et al., 2013). On the contrary, a study of Ekberg et al. (2013) indicated that fathers were successfully encouraged to take longer parental leave by the parental leave reform but this failed to culminate in significant advancements for women's careers or long-lasting changes in childcare responsibilities. Despite some women earning slightly more, overall female employment rates decreased slightly, while fathers' employment statistics remained same. This implies that changing established gender norms requires more than just expanding fathers' leave. Furthermore, research by Rey, Racionero, et al. (2021) proposes that decreasing the parental leave entitlement gap between males and females narrows the gender income gap but paradoxically increases the gender employment rate gap. Longer paid leave durations also seem to be connected with higher rates of leave take-up, however lower pay for longer leave terms can discourage mothers from re-entering the workforce. These findings support the idea that promoting dedicated paternity leave especially non-transferable can be more effective in fostering gender equality in employment outcomes. The third research question of the present study focuses on:

RQ3: "Do countries with a higher share of men taking parental leave have higher maternal employment rates?"

3. Theoretical Framework

In order to increase skills and market value, people engage in education and training according to the human capital theory (Becker, 1964) which can relate the relationship between female labor force participation and time off from work. When women take more time off for caregiving, their skills and job experience may deteriorate which can hinder their ability to advance in their careers and earn more money. In addition, women may be able to manage work and family obligations with the support of parental leave which would enable them to enhance their human capital and continue to participate in the workforce if shared parental leave by men is promoted more in all developed and developing nations. The human capital depreciation mechanism posits that when women and men take prolonged leave from work (such as parental leave), their gained skills and experience may deteriorate, so there is needed to focus on moderate or balanced parental leave. In addition to fostering gender equality at work and in the household, this moderate leave strategy would lessen the detrimental effects of leave on professional advancement.

4. Methods

4.1 Data Collection Procedure and Participants

This study used quantitative methods to examine how parental leave policies influence gender equality at work. Data were gathered from reliable sources such as the OECD family database (https://www.oecd.org/els/family/database.htm#public_policy) and World Bank data (https://data.worldbank.org/).

26 countries were taken to produce the dataset and the countries includes Austria, Belgium, Costa Rica, Denmark, Estonia, Finland, France, Hungary, Germany, Greece, Italy, Ireland, Latvia, Lithuania, Luxemburg, Mexico, New Zealand, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Switzerland, United Kingdom. Research question 1 and research question 2 used 26 countries and research question 3 used 12 countries because of the unavailability of data and the countries are Austria, Belgium, Denmark, Estonia, Finland, Germany, Italy, Lithuania, Luxemburg, Poland, Portugal, and Sweden.

4.2 Measures

The present study analyzes the parental leave system and gender equality and the parental leave duration encompasses the maternal leave, paternal leave, men taking parental leave

whereas women labor force participation rate is the proxy of gender equality. The maternal employment rate is expressing the women labor force participation. In this study, maternal employment was measured using the employment rates of women with at least one child aged 0 to 2, which serves as a key indicator of how parental leave policies influence early labor market situation. The 0 to 2 years old age group was chosen because it directly reflects the period when parental leave policies and early childcare availability have the most immediate impact on maternal employment.

This study has 1 dependent variable and 3 independent variables to for each research question get the result of this study. The independent variables are maternity leave (2019), paternity leave (2019), percentage of men taking parental leave (2019) and dependent variable is maternal employment rates (2021). The control variables are public spending on early childhood education and care (2019), enrollment education and care (2019), GDP (2019) and female education (2019). All variables were obtained from the OECD Family Database, except for the control variable 'GDP' and 'female education,' which were sourced from the World Bank dataset.

To explain the variables, maternity leave consists of total weeks of paid maternity, parental and home care payments available to mothers, while paternity leave consists of total weeks of paid leave reserved for exclusive use by the father including 'father quotas' or periods of paid parental or home care leave that can be used only by the father and cannot be transferred to the mother and any weeks of sharable paid leave that must be taken by the father for the family to receive additional 'bonus' weeks. This information is drawn from **Indicator PF2.5** (OECD, 2025). Percentage of men taking parental leave consists of men's share of recipients/users in percentage in taking parental leave (%), which refers to the proportion of all recipients/users of publicly-administered parental leave benefits or publicly-administered paid parental leave who are men based on data per 100 live births. This is based on **Indicator PF2.2** (OECD, 2025). Then, maternal employment rates consists of employment rates (%) for women (15-64 years old) with youngest child aged 0-2 by maternity/parental leave status, as found in **Indicator LMF1.2** (OECD, 2025). Then, public spending on early childhood education and care consists of total public expenditure on early childhood and care in percent of GDP. This is based on **Indicator PF3.1** as well (OECD, 2025). Enrolment education and care consists of enrollment rates in early childhood and care services for 0 to 2 years old child. This information is drawn from

Indicator PF3.2 (OECD, 2025). Female education consists of educational attainment at least bachelor equivalent, population 25+ (cumulative) (World Bank, 2025).

4.3 Data Analysis

Statistical techniques, including regression analysis, were used to evaluate the impact of these policies on gender equality outcomes while considering potential confounding factors. Through comparative analysis across countries, the study aims to offer insights into the effectiveness of parental leave policies in fostering gender equality in the workforce. To provide clear and concise data visualization, the analysis for each research question began with scatter plots illustrating the key relationships between variables. These visualizations helped identify trends and correlations in the data. Following this, regression analyses were conducted to examine the statistical relationships between the dependent and independent variables, controlling for relevant factors.

5. Results

5.1 Descriptive Analysis

Table 1: Descriptive table of all variables

Continuous Variable	**Min-Max**	**Mean (Std.dev)**	**Total Number (N)**
Maternity leave (weeks)	12-166	59 (49)	26 countries
Paternity leave (weeks)	0-28	7 (9)	26 countries
Men share leave (%)	1-52	28 (17)	26 countries
Maternal employment (%)	34.4-83.7	65 (12)	26 countries
Public spending on early childhood education and care (%)	.32-1.56	.72 (.31)	26 countries
Enrollment education and care (%)	4.1-65.6	36 (18)	26 countries
GDP ($10,000)	10434.6-112726.4	39522 (24713)	26 countries
Female education at least bachelor (%)	14-41	28 (7)	26 countries

Table 1 presents descriptive statistics for the main variables used in the analysis based on data from 26 countries. The usual duration of maternity leave is 12 to 166 weeks whereas the mean duration if paternity leave is 0 to 28 weeks. Men's share of parental leave ranges from 1% to 52%, with an average of 28%. The range of maternal employment rates is 34.4% to 83.7% (mean = 65%). The average public spending on early childhood education and care is 0.72% of GDP, with a range of 0.32% to 1.56%. The percentage of children ages 0 to 2 years that are enrolled in early education and care services ranges from 4.1% to

65.6%, with an average of 36%. The average GDP per capita varies greatly ($10,435-$112,726) whereas the percentage of women who complete at least bachelor degree varies from 14% to 41% (mean=28%).

5.2 Inferential Analysis

5.2.1 Research Question 1

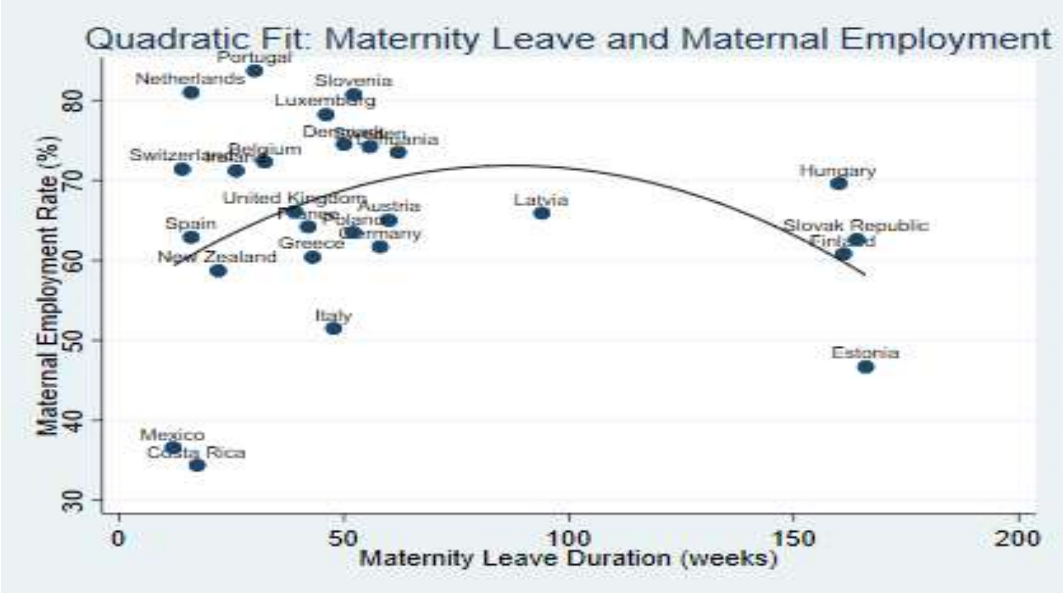

Figure 1: Quadratic fit: maternity leave duration and maternal employment rate

The Figure 1 showed a quadratic relationship between maternity leave duration (weeks) and maternal employment rate (%) across 26 countries. Maternity leave refers to the total duration of paid leave available to mothers including maternity, parental and homecare leave. Maternal employment rate refers to the employment rate of women aged 15-64 who have at least one child aged 0-2. Here, the fitted curve is clearly indicating that moderate leave policies (around 50 to 70 weeks) had a highest maternal employment rates. On the contrary, Portugal and Netherlands with shorter leave policies around 25 to 35 weeks had highest employment rate around 80% and on the other side, Estonia with highest leave showing lowest employment rate. Also, as outliers Mexico and Costa Rica with very short duration of maternity leave had very lowest maternal employment rate. So, from the graph, it is indicated that Germany, Austria, Demark had moderate leave duration showing around 50 to 70 weeks with strong employment rate. Indeed, the graph suggested that both excessive and shorter leave may negatively impact on maternal employment rate but a moderate leave policy may maintain a balanced and strongest maternal employment rate.

Table 2: Regression Results for the Impact of Maternity Leave Duration on Maternal Employment

Maternal Employment	**Model 1**		**Model 2**		**Model 3**	
	Coefficient (Robust S.E.)		**Coefficient (Robust S.E.)**		**Coefficient (Robust S.E.)**	
Maternity Leave	-0.021	(0.050)	0.060	(0.061)	0.426*	(0.159)
Maternity Leave²					-0.002*	(0.000)
Public Spending			-7.300	(6.888)	-11.668	(6.844)
Enrollment in Early Childhood Education			0.541**	(0.167)	0.534**	(0.149)
GDP			0.000	(0.000)	0.000	(0.000)
Female Education (at least bachelor)			0.275	(0.296)	0.252	(0.238)
Constant	66.302***	(4.645)	38.876***	(8.714)	31.744***	(6.576)
Observations	26		26		26	

Notes: (a) Standard errors are in parentheses; (b)* p < 0.05, ** p < 0.01, *** p < 0.001

The table 2 presented three different model by focusing on the association between maternity leave duration and maternal employment along with some factors. Model 1 shows that there is found a negative relationship between maternity leave and maternal employment but not statistically significant. This presents that with each additional week of maternity leave, maternal employment decreases by 0.021 percentage points. In model 2, the relationship is positive when adding some control variables but still remains statistical insignificant. This implies that the inclusion of the covariates does not substantially alter the observed linear relationship between maternity leave duration and maternal employment. In model 3, it is clearly indicating that maternity leave had a positive impact on maternal employment rate but the quadratic relationship between maternity leave and maternal employment had a negative association. That means, each additional week of maternity leave increases, maternal employment rate at a starting point increases by 0.426 percentage points but when the leave duration is longer, maternal employment tends to decrease slowly. While very extended maternity leave may have a negative effect on maternal employment, moderate maternity leave durations are linked to greater rates of maternal employment. So, balanced where both parents share caregiving responsibilities and moderate leave may increase maternal employment rate.

5.2.2 Research question 2

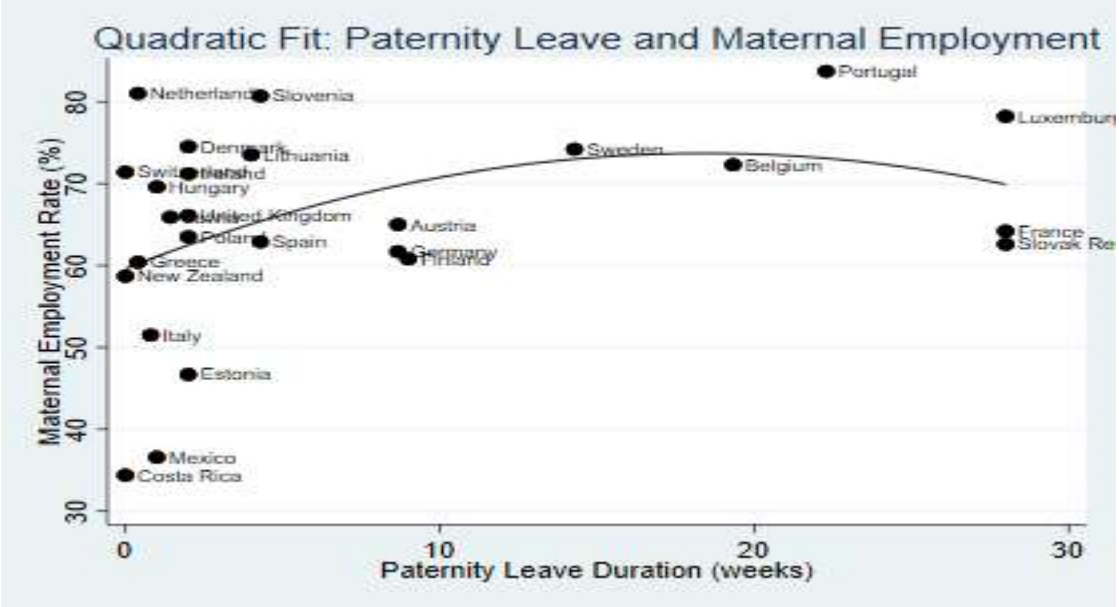

Figure 2: Quadratic fit: paternity leave and maternal employment rate

The figure 2 illustrated a quadratic relationship between paid paternity leave in weeks and maternal employment rate in percentages. The curve suggests that paternity leave duration is associated with maternal employment rate up to a certain point but when leave duration increases very long, the relationship between paternity leave duration and maternal employment shows a slight decrease. However, this decrease is minimal and likely results from the structure of the quadratic model. In general, longer leave durations tend to be positively correlated with higher maternal employment rate compared to shorter leave durations with considerable variation at the lower end. After a certain point as like when around 20 weeks were exceeded for Belgium, the maternal employment started to decrease. That means, very long paternity leave is not advantageous for increasing maternal employment rate, also for some countries as like Mexico, Costa Rica, Estonia and Italy, the shorter paternity leave duration had lowest maternal employment rate. To conclude, moderate paternity leave duration around 8 to 15 weeks for countries like Germany, Austria, and Sweden showed relatively high and stable maternal employment rate.

Table 3: Regression Results for the Paternity Leave Duration and Maternal Employment Rate

Maternal Employment	**Model 1**		**Model 2**		**Model 2**	
	Coefficient	**(Robust S.E.)**	**Coefficient**	**(Robust S.E.)**	**Coefficient**	**(Robust S.E.)**
Paternity Leave	0.415	(0.229)	0.269	(0.172)	1.400	(0.810)
Paternity Leave²					-0.041	(0.027)
Public Spending			-5.373	(5.438)	-7.615	(4.981)
Enrollment in Early Childhood Education			0.423**	(0.140)	0.401*	(0.135)
GDP			-0.000	(0.000)	-0.000	(0.000)
Female Education			0.441	(0.293)	0.493	(0.264)
Constant	61.954***	(3.361)	39.826***	(8.834)	37.810***	(8.315)
Observations	26		26		26	

Notes: (a) Standard errors are in parentheses; (b)* p < 0.05, ** p < 0.01, *** p < 0.001

The table 3 showed in model 1, the relationship between paternity leave and maternal employment is not statistically significant but the coefficient showing if one week is increased in paternity leave, the employment rate increases by 0.415 percentage points. The model 2 shows that after adding control variables, with each additional week of paternity leave, maternal employment increases by 0.269 percentage points. The relationship weakens slightly when adjusting for these factors and the relationship is not significant. In model 3, the quadratic term of paternity leave showed a non-linear relationship. The coefficient for paternity leave indicates that with each week of paternity leave, maternal employment increases by 1.400 percentage points. But the quadratic paternity leave revealed that the positive effect of paternity leave on maternal employment decreases when paternity leave has excessive durations. Though the coefficients of these variables are not significant and only enrollment in early childhood education is positively significant. Overall, the link between paternity leave and maternal employment didn't significantly change when control variables were added as evidenced by overall shift from model 1 to model 2, where the coefficient was still positive but somewhat diminished. A non-linear curb in model 3 implied that while a certain amount of paternity leave weeks promotes maternal employment, longer periods may have the diminishing effect.

5.2.3 Research question 3

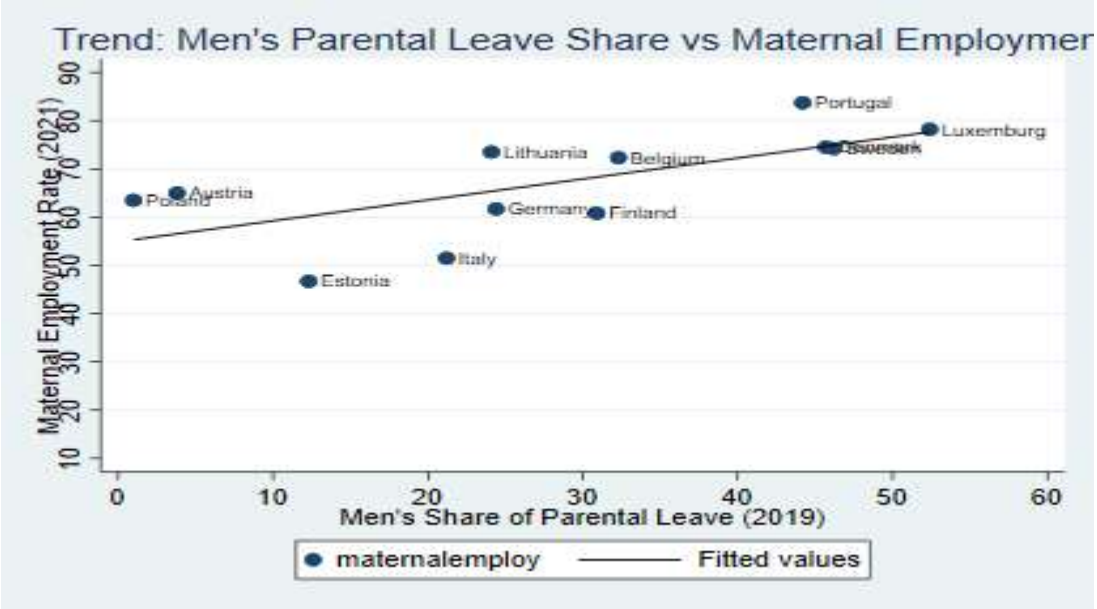

Figure 3: Men's parental leave share and maternal employment

The figure 3 presents data from 12 countries illustrated the positive association between the percentages of men's share of parental leave and maternal employment rate. The fitted line supports the idea that higher share of men's parental leave users is related to higher maternal employment rate. Portugal, Luxemburg, Denmark and Sweden have the highest rates of male parental leave uptake and maternal employment rate, whereas Estonia and Italy have lower rates for both. Nonetheless, exceptions like Austria and Poland showed short men's leave share but comparatively high maternal employment that suggesting some contextual factors behind it.

6. Discussion and Conclusion

The findings of the study show an inverted U-shaped pattern of a nonlinear association between the length of maternity leave and maternal employment, especially among mothers of very young children. This implies that although maternity leave is crucial for assisting working mothers, prolonged lengthy leave durations may have anticipated negative effects on the maternal employment effects. These findings are in line with a significant number of earlier studies. Another previous study emphasized how women's engagement in the workforce is significantly influenced by paid maternity leave. Some mothers take unpaid leave or quit their employment due to inadequate paid leave support that demonstrating financial limitations have a significant impact on their choices. Sometimes, extended leave

duration is associated with worse job satisfaction that influence mothers to take the decision to quit unsatisfactory work situations (Berrigan et al., 2021). In addition, it was found that taking paid leave of more than 13 weeks decreases psychological distress compared to no leave and even 26 to 52 weeks leave has advantages but when it exceeds 52 weeks, psychological distress is significantly increased among mothers. So, it suggested that mothers should take not less than 6 months with 3 months paid leave and not more than 12 months leave necessarily (Whitehouse et al., 2013). A study also discovered new aspect that women of childbearing age may experience unforeseen impacts from the extension of paid maternity leave, even if they are not immediately utilizing the leave. In addition to encouraging new mothers to take leave, the leave policies have a chance to gradually lower their income, employment and family income. This occurs because women who take leave may experience long career disruptions, few work hours and lack of job protection. There is even possibility from employers to less likely to promote or hire women for jobs (Timpe, 2024). In fact, it is evident that extending leave reduces the probability that women of reproductive age would work, do formal jobs and make more money than their husbands. This is due to the fact that extended paid leave policies may result in longer career beaks, less work options and less professional advancement despite their intended support for new mothers. This consequences may therefore unintentionally restrict women's labor force involvement and increase the gender gaps in the sector of employment (Liu et al., 2024). Also, Schönberg and Ludsteck (2017) examined the impact of maternity leave legislation on female labor supply. Extended leave entitlements rising from two to six months had a negative impact on wages even eight years after childbirth. The extension of leave influenced women negatively to return to workforce after childbirth and caused long-term career disruptions. Similarly, Rossin-Slater (2017) highlighted in research that shorter leave policy less than one year helped job continuity and employment success rate but longer leave decreased employment network, wages and promotions in job sector. For this reason, improving parental leave policy is seeking attention to support female employment rate and decrease gender wage gap. But few studies observed opposite results, one of the study revealed that there is no apparent negative effect of the lengthy of maternity leave on maternal employment and demonstrated how having access to high-quality childcare facilities helps women maintain both family and work responsibilities. The study also highlighted the provision of daycare services for children 3 to 5 along with extended maternity leave has a positive impact which increase maternal employment even more (Lee & Jung, 2024). Also, another study's findings are consistent with the idea that the length

of maternity leave and female labor force participation have a non-linear association and primarily longer maternity leave helps mother become more attached to the labor market because paid maternity leave can lead financial stability and employment safety. Instead of quitting completely because of childcare, this can assist them to maintain a connection to the workforce. But, after a certain point, extended leave may have unforeseen negative impacts that amplify the pay penalty such as diminished career advancement, skill depreciation and so on (Rey, Kyriacou, et al., 2021).

Previous research has shown that female labor force participation is influenced by a range of factors beyond maternity leave, including paternity leave, female education, men's share of parental leave, public spending on childcare, enrollment of children in childcare facilities (Olivetti & Petrongolo, 2017). This present study was also supporting the findings and suggest that supportive family policies and shared caregiving responsibilities can promote higher maternal employment and greater gender equality in the labor market. In line with the literature, this study found a nonlinear quadratic association between paid paternity leave and maternal employment rate of very young children. Moderate paternity leave durations led to an increase in maternal employment rates, but lengthier periods of leave caused them to level off. Overall, it seems that moderate leave durations (8-15 weeks) promotes gender equality and maternal employment of very young children mostly.

There were some studies that showed relationship between paternity leave and women employment. Some studies discovered that paternity leave has some advantageous that can positively influence paternal engagement in childcare activities and also, it can help their working wives to involve in economic sectors. A study discovered that parental leave of fathers is positively correlated with paternal engagement in childcare. Fathers with taking leaves more than two weeks can help in household and childcare activities at the time of younger age of their children. That's why, different OECD countries are promoting leave policies where fathers are getting importance in case for spending more time with children (Huerta et al., 2017). Even there are some other benefits along with maternal employment, one study found that fathers' life satisfaction and their utilization of paternity leave are positively correlated and it has positive impact on marital relationships (Kramer et al., 2019). Furthermore, paternity leave policies assists a more equal division of household labor because when fathers take a certain time of leave, mothers has lowest burden of household work and more focus on career progression. Notably, Druedahl et al. (2019) discovered that 1998's paternity leave reform with two extra weeks in Denmark increased

gender equality in labor market and women's labor income share by almost 1.2 percentages points. As far as we know that due to childcare responsibilities, women frequently face job disruptions and less working hours, although men's professions are generally less impacted. This phenomenon, referred to as the "motherhood penalty," is as opposed to the "fatherhood premium," which may potentially result in higher earnings and more possibilities to employment for fathers. Due to the effect of children, this is one of the primary factors that distinguishes the careers of men and women (Angelov et al., 2016; Jacobsen et al., 2019; Petter et al., 2017).

Moreover, the present study got a positive slope between men's shared parental leave and female labor force participation rate. In this case, a study on the purpose of earmarked parental leave especially "daddy quotas" that set aside time for fathers is to promote a more equitable distribution of childcare duties and lessen gender imbalance in the workforce and encourage female labor force participation because fathers' leave allows women to return to work sooner for minimizing disruptions to their careers (Jørgensen & Søgaard, 2024).

Though this study focused all paid leave as a maternity leave but job protected leave was not main concern. But future studies can take the initiative to introduce job protected leave and its consequences. Due to short job protected leave, early maternal employment have some negative aspects. An interesting result had been found from U.S study examining early return of mothers within 12 weeks after giving birth that early return of mothers are linked to lower breastfeeding rate, incomplete immunization and reduction of well-baby check-ups significantly. Externalizing behavior issues before the age of four are also more likely to occur in children whose mothers return to full-time employment within 12 weeks. The study also suggested to expand paid leave option rather than short job protected leave (Berger et al., 2005).

Indeed, the aforementioned results indicated the significance of formulating balanced parental leave policies that assist gender equality with promoting women's professional progression. The findings highlighted not only regulating leave entitlements but also concentrating on the additional strategies such as childcare support and job reintegration initiatives. Although this study results offers insightful information, future studies should examine how parental leave policies influence maternal employment over time by using longitudinal data. Future research can also investigate how various aspects of these policies

like the duration and pay of leave, and the option for paternity leave is associated with the distribution of household work and the participation of women in the labor market. Additionally, a more thoughtful research may be done in future by focusing on cultural perspectives and enhancing gender equality policy measures and its positive influence on female labor force participation.

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