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MLM Final Paper

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**Gendered policy outcomes?**

**Examine family policy effects on the labor market**

**in OECD countries**

**Introduction**

The sexual division of labor literature has shown that women are assumably the primary caregivers in households, spending more time on unpaid care work and household chores than men, which disadvantages them in the workplace (Miller and Garrison 1982; Ross 1987; Brines 1994; Cohen 2004; Tsutsui 2016). Therefore, they are less likely to remain in the workforce compared to men. Seeing this influence of family burden on gender inequality, countries have published gender-sensitive public policies and specifically offer child allowances, tax exemptions, vouchers, health care services to families with children (Ostner 1996; De Henau et al. 2016; Downes, Von Trapp, and Nicol 2017; Kushi and McManus 2018; Briar 2000; Leitner 2003). But the assistances often vary significantly across countries. So, it is necessary to consider the types of states.

My paper builds on Esping-Andersen's (1990) welfare state regime typology (liberal, conservative, and social democratic) and gendered institution research to formulate my hypotheses and construct my multilevel models. Esping-Andersen (1990) suggested three types of welfare states and categorized 18 OECD countries into these categories: (1) liberal welfare states, including Australia, Canada, Ireland, New Zealand, UK, and USA; (2) conservative including Finland, France, Germany, Japan, Italy, and Switzerland; (3) social democratic including Austria, Belgium, the Netherlands, Denmark, Norway, and Sweden. Based on his categorization, I create a "group" nominal variable taking values 1, 2, and 3, and define the second level of my models with the group variable. Additionally, gendered institution research inspires me to focus on gendered policymaking and possible gendered outcomes of seemingly gender-neutral policies. I assume that family policies would benefit women more than men in the labor market. But gender bias in policymaking institutions may render policies more beneficial to men. In this respect, I would like to explore the question: do family policies affect men and women differently?

To test if family policies generate gendered effects on women and men differently, I use the multilevel model with entity and time effects to research women and men aged 25-54 in 18 OECD countries from 1999 to 2019. My data are drawn from the OECD database, the World Bank database, and the United Nations Human Development Reports.[[1]](#footnote-1) To measure the worker's status in the labor market, I construct six dependent variables (DV): men's and women's labor force participation rate (LFPR) and LFPR gender gap as well as women's and men's unemployment rate (UR) and UR gender gap. And I use my independent variable (IV)— government spending on family benefits—to measure family policies. I also include control variables, such as GDP per capita, fertility rate, gender inequality index, social benefits, and unemployment benefits.

My multilevel models show mixed results. On the one hand, family benefits seemingly favor men over women regarding the only statistically significant positive effects of family benefits on male LFPR, indicating gendered effects on LFPR. On the other hand, such public spending on family seemingly benefits women more than men, regarding that increasing family benefits can narrow UR gender gap. And it is more influential in reducing women's UR than men's UR, implying family policies generate less gendered effects on UR. Although my models do not show statistical significance for both LFPR and UR simultaneously, they still offer meaningful statistical evidence about the positive potential of family policies for alleviating gender inequality in the labor market. But since my sample is OECD countries, this pattern may be inappropriate for explaining the labor market in Global South countries.

Overall, this paper proceeds as follows. First, I review welfare regime and gendered institution literature and find theoretical support for building my hypotheses. Second, I explain my research design and data collection. Third, I display and explain the results. Last, I reach my conclusion.

**Literature Review**

Welfare regime

Esping-Andersen (1990), in *The Three Worlds of Welfare Capitalism,* suggested three types of welfare-state regimes: liberal, conservative, and social democratic, according to three principles: decommodification, social stratification, and public-private mix (C. Bambra 2007, 1098). Liberal welfare states, such as the US, Canada, and Australia, offer modest social-insurance benefits, catering mainly to "low-income, usually working-class, state dependents" (26). And the state encourages the market to provide benefits either by guaranteeing a minimum or subsidizing private welfare plans (27). Conservative (corporatist) welfare states, for example, Austria, Germany, and Italy emphasize the preservation of status differentials, which means social benefits were differentiated by class and status. The private insurance is minimal, and the redistribution impact is minimal. This type of regime also emphasizes traditional family values and motherhood. And "social democratic" states, predominately Scandinavian countries, provide

universal social programs and generous benefits to all people of different statuses. This regime socializes family costs, transfers grants directly to children, and cares for children and other vulnerable groups. It enables individual independence and employment and encourages women to work instead of staying home (27-28). I assume that "social democratic" countries have more public spending on family benefits, so the female LFPR should be higher, UR lower, and the gender gap smaller than that of other countries.

Although Esping-Andersen's crude classification has received a great deal of criticism, his welfare state typology is fundamental to welfare-relevant research. Kangas (1994), Ragin (1994), Pitzurello (1999), and Bambra (2005) relied on Esping-Andersen's typology to come up with other supplementary regime types. Compared to the later scholars who categorized states according to culture and religion, Esping-Andersen was more concerned with the labor market and employment, which fits into my research scope— policy effects on women and men in the labor market. Therefore, I adopt Esping-Andersen's typology to test my hypotheses and build models. And regarding different welfare development trajectories, I expect that government spending on family varies across three types of welfare states and generates different consequences.

Gendered Institution

Mainstream institutionalist scholarship often assumes gender-neutral institutions. But feminist institutionalists argue that institutions and policy outcomes can be gendered. As (Kenny 2007) noted, 'seemingly neutral institutional processes and practices are embedded in hidden norms and values, privileging certain groups over others' (95) Burton (1991) explicitly pointed out that state institutions are historically the products of "mobilization of masculine bias." In the same vein, Acker (1992) also revealed that institutions of politics, law, religion, academy, and other fields have been historically developed and dominated by men as well as interpreted from "the standpoint of men in leading positions (567). In a sense, a gendered institution means that gender inequality exists in the 'processes, practices, images and ideologies, and distributions of power' within an organization (Acker 1992, 567). And the gendered organizing processes and bureaucratic practices can construct gender hierarchies within organizations (Acker 1992, 568; 2012, 215-217). Under the influence of gendered institutions, actors' behaviors will be shaped by "well-defined guidelines about how men and women should act and the value ascribed to masculine and feminine behavior" (Chappell 2003, 11). Lowndes (2020) examined how institutions are systematically gendered with four key variables: rules about gender, rules with gendered effects, gendered actors working with rules, and gendered outcomes of action shaped by rules (545-47). And due to gendered actors, gendered rules, and gendered practices within institutions, such gendered outcomes can be produced and reproduced. In terms of this gendered institution research, family policies may be fundamentally gendered. They are likely interpreted and decided by male elites in power. The policy may benefit men over women. It is necessary for me to take a gender lens to examine the existence of family policy's effects.

**Research Design**

Hypotheses

Based on the above literature review, I raise two sets of hypotheses. The first set of hypotheses primarily assesses the general effects of family policies on women and men separately. I expect to see different results in these two groups. The second set of hypotheses tests if family policies worsen the gender gap in the labor market. I expect to see that family policies decrease the gap.

H1. Family policies benefit women and men in the labor market.

H1 (a) Increasing public spending on family can increase women's LFPR.

H1 (b) Increasing public spending on family can increase men's LFPR.

H1 (c) Increasing public spending on family can lower women's UR.

H1 (d) Increasing public spending on family can lower men's UR.

H2. Family policies narrow the gender gap in the labor market.

H2 (a) Increasing spending on family can reduce LFPR gender gap.

H2 (b) Increasing spending on family can reduce UR gender gap.

It should be noted that LFPR gender gap is calculated by subtracting women's LFPR from men's LFPR. My hidden assumption is that women's LFPR is smaller than men's LFPR most times. And UR gender gap is calculated by subtracting men's UR from women's UR. Behind it, my assumption is that women's UR is higher than men's UR most times.

Construct IV

To measure family policies, I use one IV: public spending on family benefits in the percentage of GDP, including financial support exclusively for families and children. As OECD (2023) notes, there are three types of public spending on family benefits.

First, child-related cash transfers (cash benefits) to families with children, including child allowances, with payment levels that in some countries vary with the age of the child and sometimes are income-tested; public income support payments during periods of parental leave and income support for sole parents families.

Second, public spending on services for families with children, including direct financing and subsidizing of providers of childcare and early education facilities, public childcare support through earmarked payments to parents, public spending on assistance for young people and residential facilities, public spending on family services, including center-based facilities and home help services for families in need.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Liberal** | **Conservative** | **Social democratic** |
| Countries | Australia, Canada, Ireland, New Zealand, UK, and USA | Finland, France, Germany, Japan, Italy, and Switzerland | Austria, Belgium, the Netherlands, Denmark, Norway, and Sweden  (predominately Scandinavian countries ) |
| Characteristics | modest social-insurance benefits  low-income, usually working-class, state dependents | social benefits were differentiated by class and status  private insurance is minimal, and redistribution impact is minimal  traditional family values and motherhood | universal social programs and generous benefits to all people  socializes family costs |
| Group | 1 | 2 | 3 |

Third, financial support for families provided through the tax system, including tax exemptions; child tax allowances (amounts for children that are deducted from gross income and are not included in taxable income), and child tax credits, amounts that are deducted from the tax liability.

Create group indicator

I create a nominal variable, welfare group, to categorize 18 OECD countries based on Esping-Anderson's welfare state typology (Esping-Andersen 1990). I categorize liberal welfare regime as group 1, including Australia, Canada, Ireland, New Zealand, the UK, and the USA; conservative as 2, including Finland, France, Germany, Japan, Italy, and Switzerland; social democratic as 3, including Austria, Belgium, the Netherlands, Denmark, Norway, and Sweden.

Since different welfare states have different preferences on family benefit spending, I display family benefits from 1999 to 2019 by group as Figure 1 shows. Group 3 social democratic welfare states, including Sweden, Norway, Denmark, the Netherlands, Belgium, and Austria, have the highest public family spending, around 3 percent of GDP, that could reflect their universal social welfare approach (e.g., universal childcare and education programs). The conservative welfare states have the lowest family spending, which imply the family-based care work and heavy care burden on women in these countries. As for liberal states, the spending is generally between 2 and 3 most times. And from the distribution plot, we can see that the spending of group 3 social democratic welfare states concentrates around 3 percent, whereas the spending of group 1 conservative concentrates between 1 and 2.

Figure 1

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Construct DVs

I primarily use LFPR and UR to measure workers' status in the labor market. LFPR is usually more stable than UR. UR often fluctuates with the economic environment. LFPR can capture a long-term change, and UR can reflect a short-term change. Therefore, I create six dependent variables (DVs): men's and women's labor force participation rate (LFPR) and LFPR gender gap, as well as women's and men's unemployment rate (UR) and UR gender gap. I also include four control variables: GDP per capita, fertility rate, gender inequality index, household benefits, and unemployment benefits. These data are drawn from the OECD database, the World Bank database, and the United Nations Human Development Reports.[[2]](#footnote-2)

Scope and Data

The data focuses on women and men aged 25-54, because these age groups are likely to build family, and so can be affected mostly by family policies. But I have to admit that this 25-54 age group is usually more stable than other groups since very young people and old people are often found likely to be unemployed or to leave the workforce (Walker 1981; Axelrad, Malul, and Luski 2018; Awogbenle and Iwuamadi 2010). And I filter 18 OECD countries according to Esping-Andersen's welfare state typology from 1999 to 2019. It is worthy of mention that in the twenty years, financial crises and other events can affect the labor force participation and unemployment rate. But I would not focus on the exogenous shocks in this research.

Last, I use the multilevel model with entity and time effects for two reasons. The distributions of men's and women's LFPR and UR, as well as LFPR and UR gender gap, are different in three types of regimes, as Figure 2 shows. For instance, group 1(liberal) female LFPR is between 70 and 75, which is lower than group 2 (conservative) and 3 (social democratic) states' female LFPRs, which are between 75 and 80. And the DVs are clustered by welfare state types. From Figure 3, group 3 (social democratic) welfare states' female LFPR is much higher than that of the other two types of states. And the effects of family benefits vary by welfare group. As Figure 4 shows, welfare group 1 (liberal) has a negative relationship between family benefits and female LFPR, while group 2 (conservative) and group 3 (social democratic) have positive relationships. And male LFPR and LFPR gender gap also have different relationships with family benefits in the three types of welfare states. In this regard, it is more appropriate to build multilevel and examine entity effects rather than pooled ordinary linear regression. The effects may also vary over time, so I include time effects.

Figure 2

The histograms of six DVs

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Figure 3

The distributions of six DVs from 1999 to 2019

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Figure 4

Relationships between female LFPR and family benefits

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Figure 5

Relationships between male LFPR and family benefits

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Figure 6

Relationships between LFPR gender gap and family benefits

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**Results and Analysis**

Before model building, I check the variance inflation factor (VIF) for measuring multicollinearity among the IVs. All VIFs are between 1 and 3, which means a moderate correlation. Therefore, I do not have to pay special attention to the multicollinearity issue.

Table 1 VIFs

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In Table 2, family benefit positively correlates with male LFPR but does not have statistical significance on female LFPR and LFPR gender gap. Government spending on family only improves men's labor force participation. Specifically, 1 percent increase in spending can increase 0.57 percent of men's LFPR. This result can only support H1 (b) increasing public spending on family can increase men's LFPR. That may imply gendered effects regarding that family benefit only has statistical significance on men's LFPR.

And for LFPR-relevant DVs, almost all control variables are significant. Noteworthily, inequality can reduce female LFPR while it can increase male LFPR. That fits the common expectation that men usually are more advantageous and can gain more working opportunities than women in a gender-unequal society. And economic development (measured by GDP per capita) is positively correlated to female LFPR but negatively correlated to male LFPR and LFPR gender gap. This implies that women can have a better working environment in economically advanced countries. But fertility rate is positively correlated with women but negatively correlated with men. This contradicts studies that the fertility rate can reduce women's labor force participation (Bloom et al. 2007). Da Rocha and Fuster (2006) explained this positive correlation from women's birth postpone decisions. And it might be related to the age. This puzzle is worthy of more explanation in my future research. And social benefit to household has statistical significance for all three DVs. But social benefit is negatively correlated with male LFPR and LFPR gender gap but positively correlated with female LFPR. That probably means social benefit is more effective for women.

Then, I examine UR. The family benefit has statistical significance on female and male UR as well as UR gender gap. It can lower the unemployment rate for both women and men. But the effect is more significant on women than men. 1 percent increase in family spending can reduce over 1 percent UR for women and 0.6 percent for men. It also decreases UR gender gap by 0.44 percent. These results indicate that public spending on family benefits benefits women more than men. And family policy is more effective in relieving unemployment than increasing labor force participation. In short, the results can support H1 (c) increasing public spending on family can lower women's UR; H1 (d) increasing public spending on family can lower men's UR; H2 (b) increasing spending on family can reduce UR gender gap. The gendered effects benefit women more than men in terms of their unemployment rate.

Except for fertility rate, all control variables have statistical significance on two or three UR DVs. Social benefit and unemployment benefit are positively correlated to female and male UR. This is contrary to the belief that these benefits should lower unemployment. Or it might explain that people want to get these benefits so they can easily quit jobs and remain unemployed for some time. And social benefit and unemployment benefit are negatively correlated to UR gender gap. That means the increase in benefits can narrow the difference between women's UR and men's UR. And GDP per capita is a significant negative coefficient for women but not significant for men. That probably implies that high economic development can relieve women's unemployment problems.

Table 2 Results for six DVs

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**Conclusion**

I employ the multilevel model with entity and time effects to examine if public spending on family generates gendered impact on women and men in 18 OECD countries. My results

only support four hypotheses: H1 (b) increasing public spending on family can increase men's LFPR; H1 (c) increasing public spending on family can lower women's UR; H1 (d) increasing public spending on family can lower men's UR; H2 (b) increasing spending on family can reduce UR gender gap. In short, family benefit has statistically significant effects on lowering UR for both women and men, as well as UR gender gap and positive effects on increasing male LFPR. In this respect, there are gendered effects on LFPR but less gendered impacts on UR.

These mixed results probably are result of my models' two limitations. First, my models and variables may not be able to capture the gendered effects. I need to consider other available datasets to construct my variables and remodel the data. Second, I may miss some important variables. In particular, the financial crisis and other events between 1999 and 2019 can affect the labor force participation and unemployment level. These exogenous shocks are worthy of more exploration in my future research.

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