

Proposal – Gender Gap in Employment

Group L

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[Github Repo](#)

I. Introduction:

We are interested in examine the gender gap in employment and its socio-economic consequences. In this project, we plan to focus on the OECD countries and compare their employment as well as public expenditure and fertility rate. At last, we will do a case study focusing on US policy-making.

II. Related Policies:

By 2013, except for the United States, all Organization for Economic Co-operation and Development (OECD) countries provided certain levels of national paid parental policies. Although both the United States and Sweden are considered as economically robust developed countries in terms of the GDP, parental leave policy in the US lags far behind than in Sweden.

OECD Countries:

- Sweden: Swedish Parental Leaves Major Reforms
 - 1974: Introduction of parental leave with 180 days paid leave and 90% replacement rate
 - 1995: Introduction of one-month non-transferable month to each parent
 - 2002: Increased to 480 days of paid leave; added to two months of non-transferable months for each parent
 - 2007: changed ceiling to 80 percent of earned income
 - 2008: Adopted equality bonus: a tax deduction for families to share the leave more equally
 - 2012: Increased ceiling to \$68,508 to encourage higher earners take the leave
- German:
 - All new mothers, whether they are employed or not, receive a flat payment of €13 (US\$17) per day during this eight-week period. German parents receive three years of job-protected parental leave after the birth of a child. This was part of an effort to make leave more attractive to higher-qualified (and higher-paid) workers. This

provides an incentive for women to postpone childbirth until they are established in the labor market.

- 2007 family policy reform: the compensation attached to this leave was increased from a flat-rate payment to a percentage of earned income.
- US: The Family and Medical Leave Act (FMLA)
 - The only existing universal or nationally federal parental leave policy passed in 1993.
 - FMLA allows employees to take twelve workweeks of unpaid, job protected leave in a 12 months period for family and medical reasons. The eligible reasons of FMLA are 1) The birth of child to care within one year of the birth or the placement of the adopted child with employees 2) To care family members who have severe health issues 3) A serious health issue that prevent the employee perform his or her job 4) For any qualifying exigency that one of the family members are related with covered active duty within the military.
 - FMLA applies to eligible employees who work for eligible covered employers. The covered employer needs to 1) be a private-sector employer that contains more than fifty employees in more than twenty workweeks in the calendar year 2) public-sector employer regardless of the number of employees or 3) private or public elementary or secondary schools regardless of the number of employees. To be an eligible employee for FMLA, one need to 1) work for an eligible covered employer 2) have worked for at least twelve months 3) have worked for 1250 hours in twelve months before using the leave 4) work for an employer with more than fifty employees within seventy-five miles (U.S. Department of Labor Fact Sheet #28, 2012).

	Germany	Sweden	United States
Paid parental leave	14 months at 67% of pay	13 months at 80% of pay, plus 3 months at \$9 per day	None
Leave reserved for second parent	2 months at 67% of pay	2 months at 80% of pay	None
Paid leave to care for sick child	10–25 days	120 days	None
Paid leave to attend to children's personal needs	None	5 days	None
Public preschool child care	From age 1; mostly half day, coverage better for ages 3–5 than for ages 1–3	From age 1½	None; nonrefundable child care tax credit of \$1,050 per child
Cash allowance	Refundable tax credit of \$2,530 per child plus \$2,300 per child for low-income families	\$155 per month per child	None; tax deduction for dependents (\$3,650 each); nonrefundable tax credit for children (\$1,000 each); refundable tax credit for low-income families (ETC)

(Table 1) Family Policies Compared

III. Related Literature Reviews:

1. Bowman, John R. 2014. *Capitalisms Compared: Welfare, Work, and Business*. 1st ed., SAGE/CQ Press
2. Rebecca Ray, Janet C. Gornick, and John Schmitt. 2009. "Parental Leave Policies in 21 Countries: Assessing Generosity and Gender Equality," Center for Economic and Policy Research
3. Zimmerman, Mary K. "Paying Family Caregivers: Parental Leave and Gender Equality in Sweden." *Caring on the Clock: The Complexities and Contradictions of Paid Care Work*, edited by MIGNON DUFFY et al., Rutgers University Press, 2015, pp. 213–224.

IV. Dataset:

1. Employment< OECD database>: 295,119 observations, includes three key metrics for different age groups in 39 countries: the employment/population ratio, unemployment rate, labor force participation rate
https://www-oecd-ilibrary-org.ezproxy.cul.columbia.edu/employment/female-labour-force-thousands_25c577c3-en
2. Family< OECD database>: 11,639 observations, includes four key metric we care about for 39 countries: gender gap in employment, paid parental leave for mothers and fathers, fertility rate, government social expenditure on family as percentage of GDP
https://www-oecd-ilibrary-org.ezproxy.cul.columbia.edu/employment/female-employment-thousands_52035dea-en
3. Speech: Considering presidents will usually present their vision of America and set forth their goals for the nation, thus we collected President's Inaugural Address of US from 1960 to 2022 (four-year term), and want to apply text analysis to explore whether president pay attention to "gender gap for employment" or "women unemployment" on their goal for nation.
https://avalon.law.yale.edu/subject_menus/inaug.asp

V. Visualization:

We will utilize the visualization techniques including but not limited to ggplot2, Leaflet, Plotly and text analysis in our project.

- Line chart: Line charts will be used to illustrate changes in gender gap over time
- Bar chart: Stacked bar charts will be used to display the relationship between gender gap and public social expenditure on family
- Map: Leaflet or other geospatial data techniques will be used to show the difference in gender gap and public social expenditure on family across the world.

- Interaction: Plotly will make the charts more functional and entertaining.
- Text Analysis: Wordcloud will be created to facilitate our text analysis.