

TEAM 5 PRESENTS

Women's Employment Analysis

- Everyone benefits from building a gender inclusion workplace



Agenda



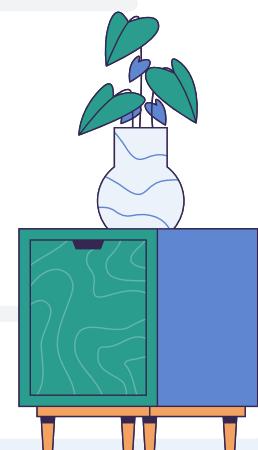
Company Backgrounds

Data Quality

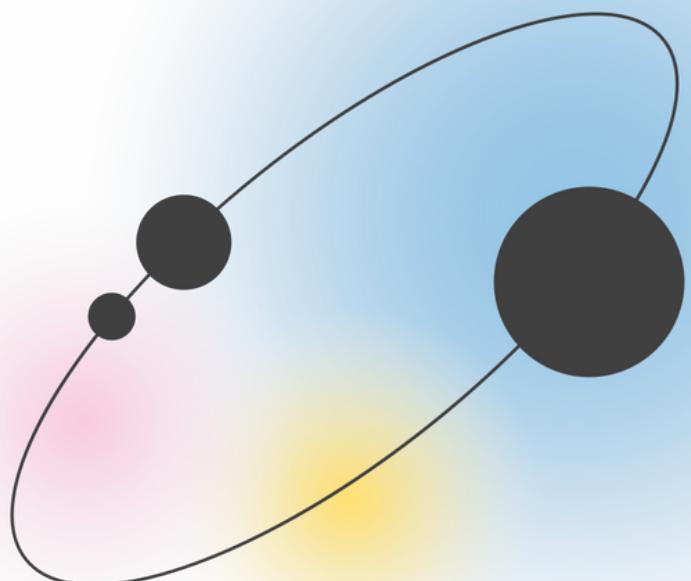
Factors that impact Female Labor Force Participation Rate

Insights and Recommendations

Reflection



Domain of Consultancy



Background

Women's status in the area of employment and earnings has significantly improved since the last century. However, a gender gap in earnings still persists across races, regions and sectors of employment, and greatly expands with age.

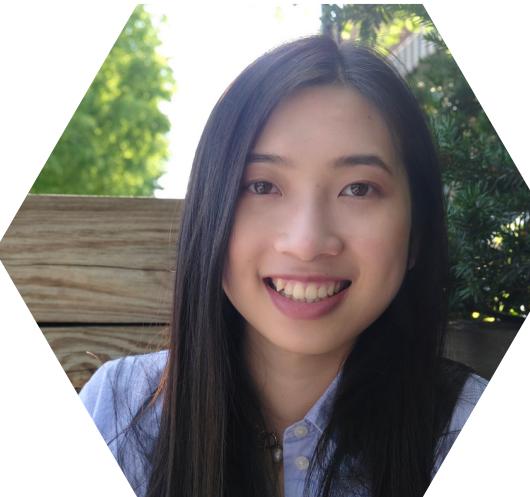
Focus

Although many corporates now understand the importance of gender equality, only a few know what to do, even fewer have been successful in closing the gender gap. Our consulting firm focuses on gender equality in workforces and strives to provide a range of services to help our clients achieve this critical goal.

Market

Our services will mainly focus on companies in European countries. We will present some key facts and drivers of the level of gender equality in the European labor market in the past twenty years to provide some insights for our clients.

Meet the Team



Grace Tang



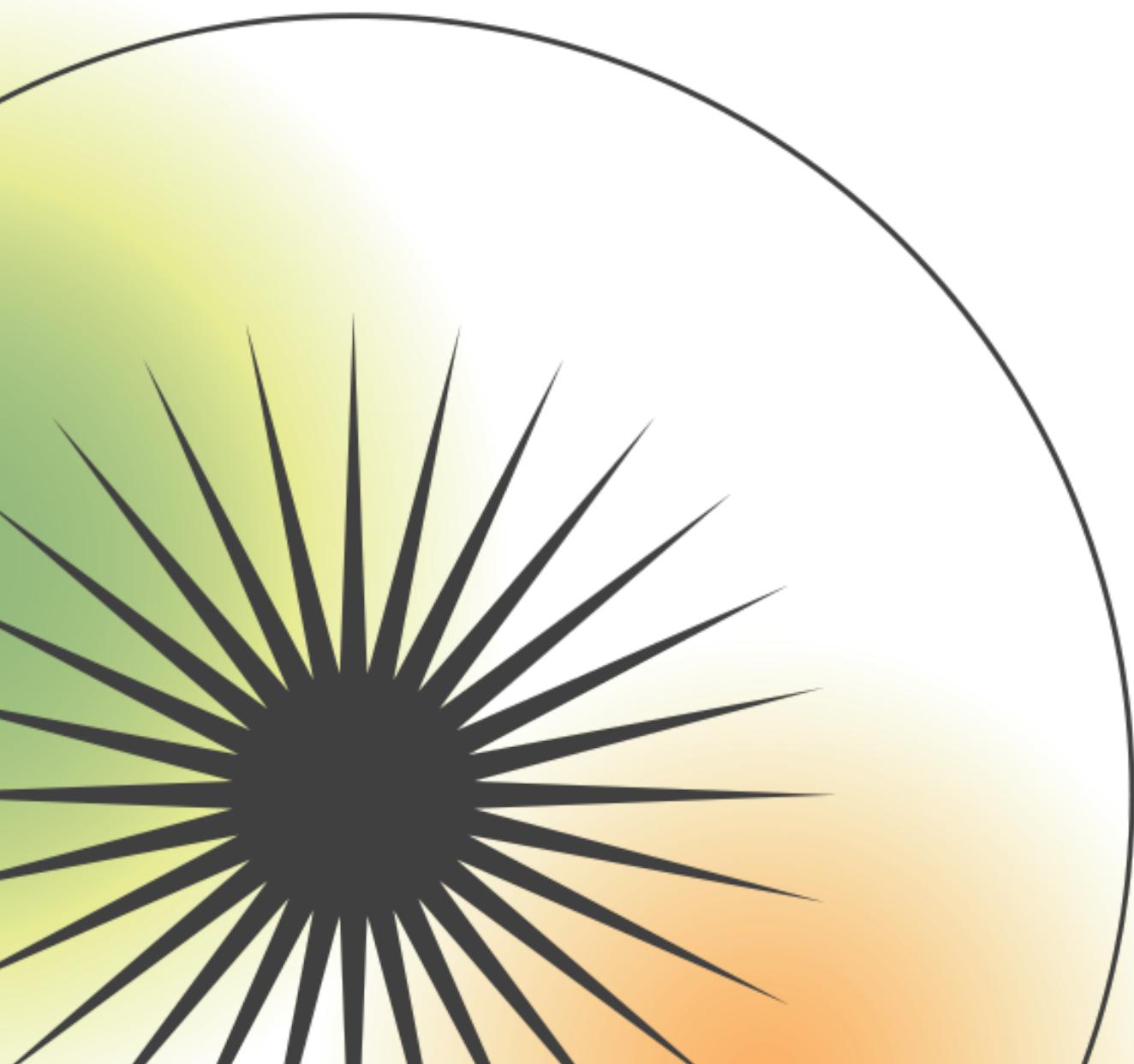
Victoria Zhao



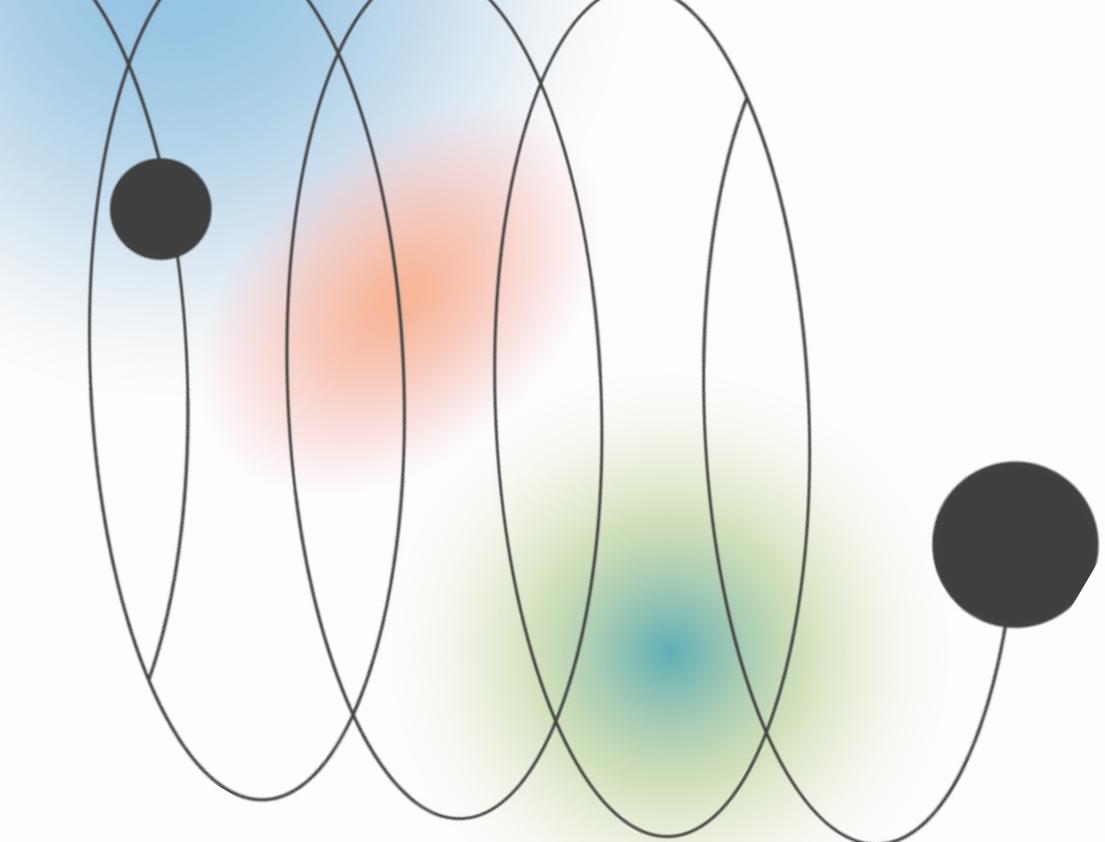
Elva Ge



Yushang Chen



4-Stages Development



WE ARE HERE!

01

Analyze

Analyze both in the internal workplace and external environment

02

Integrate

Integrate both quantitative and qualitative evaluation

03

Implement

Identify priorities & implement applicable interventions

04

Monitor

Build clear tracking metrics and evaluation system

Data Quality /Preparation



OECD Statistic:

- Public Spending on family Benefits
- Female labor force participation OECD
- Weekly Average Working hours

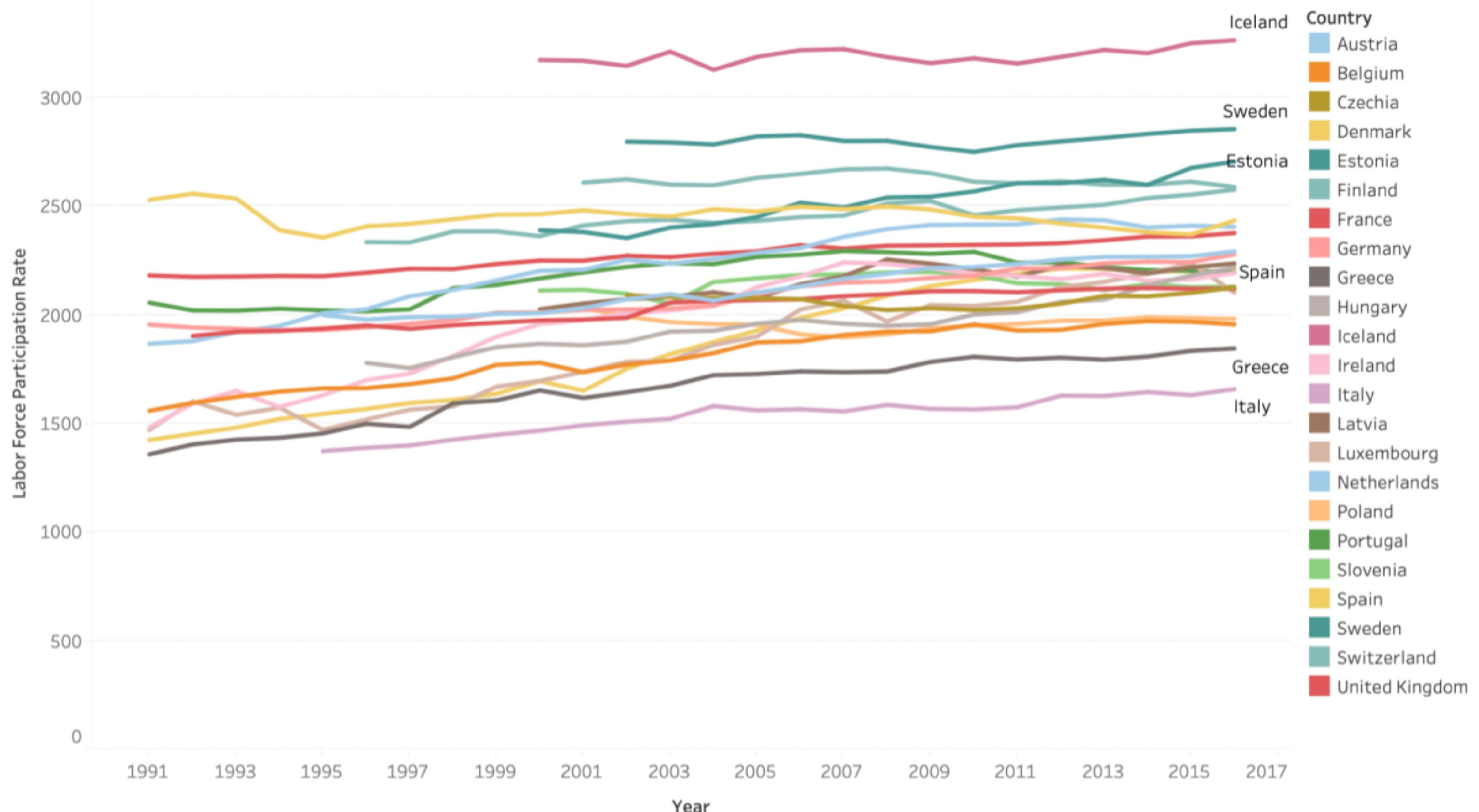
International Labor Organization (ILO)

- Unemployment Male v.s Female
- Female Labor Force by Age

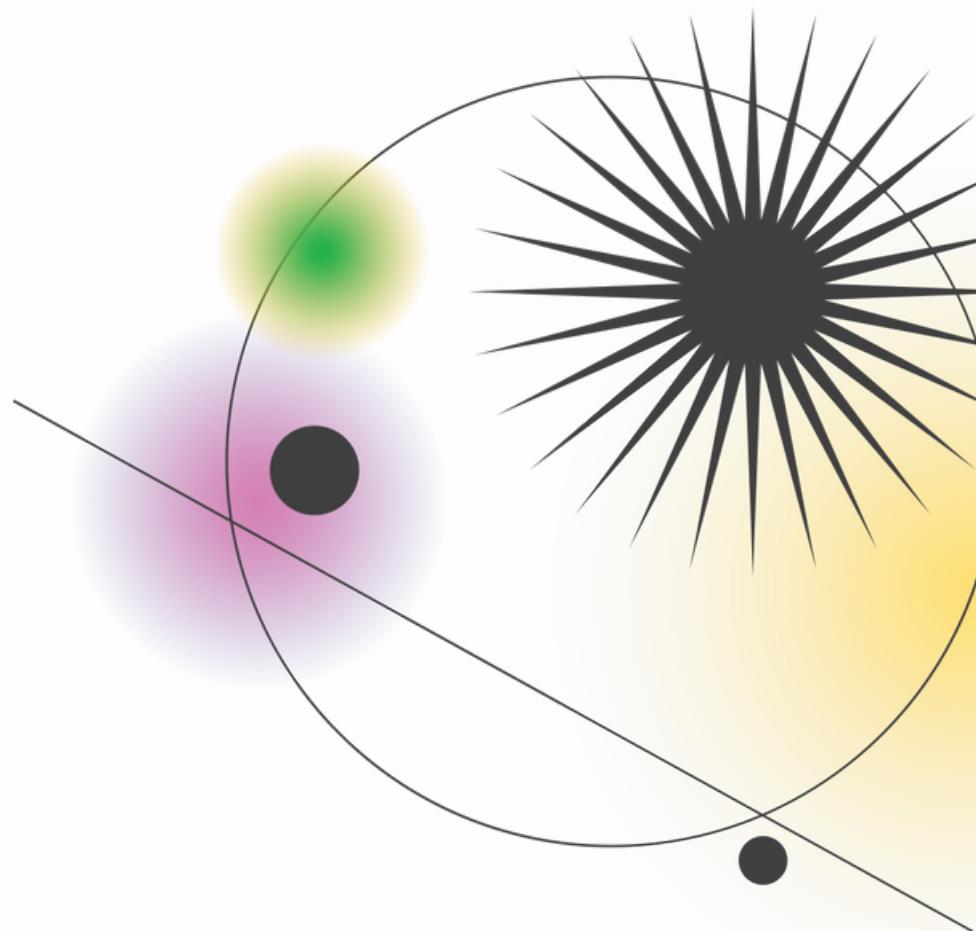
The World Bank:

- The Sectoral Composition
- Fertility (added since report 2)

<Women Labor Force Over Time in Europe>



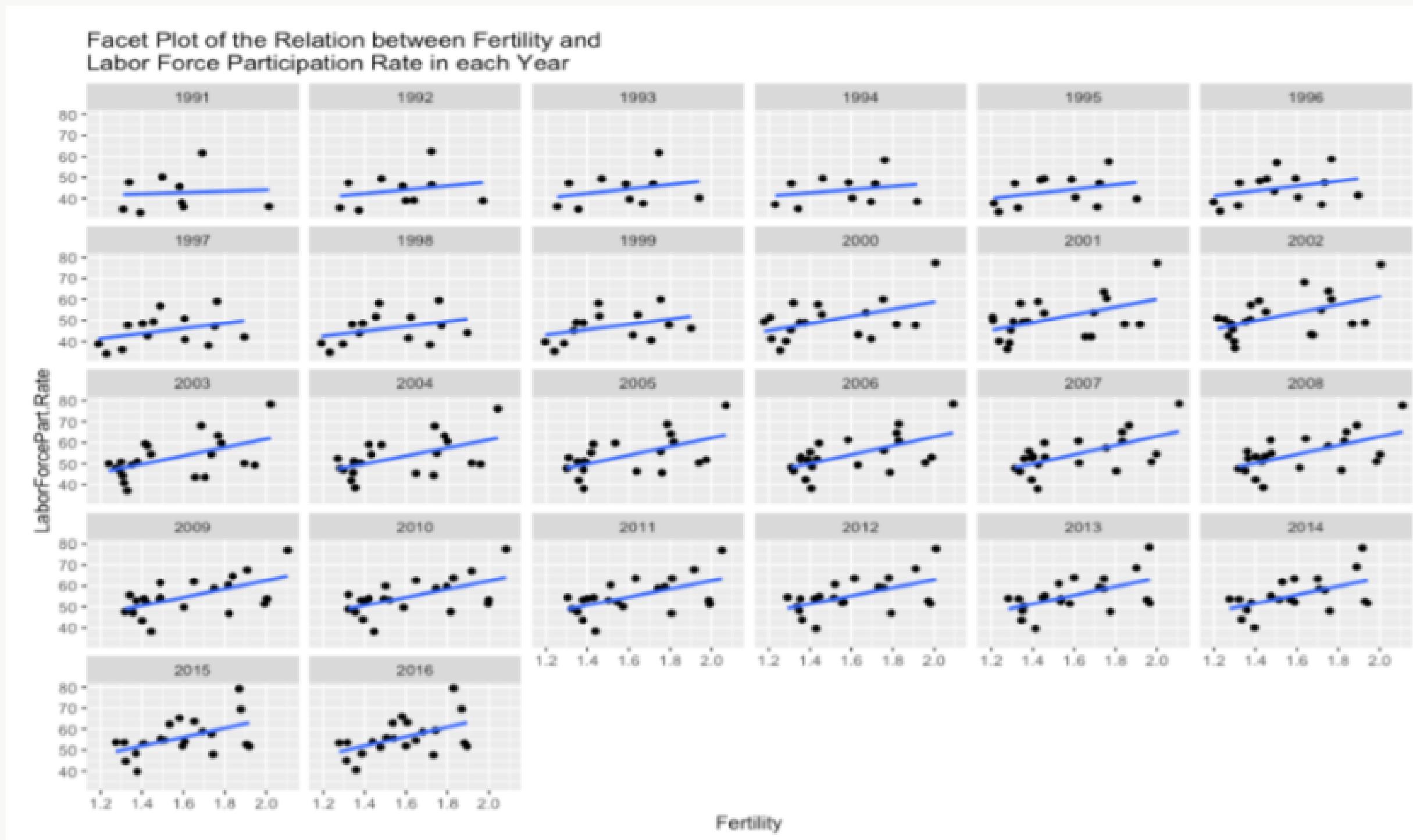
Factors that Impact Female Labor Force Participation Rate



- 01 Fertility
- 02 Government's Public Spending on Family Benefits
- 03 Weekly Working Hours
- 04 Different Economic Sectors
- 05 Female Employment to Population Ratio

01

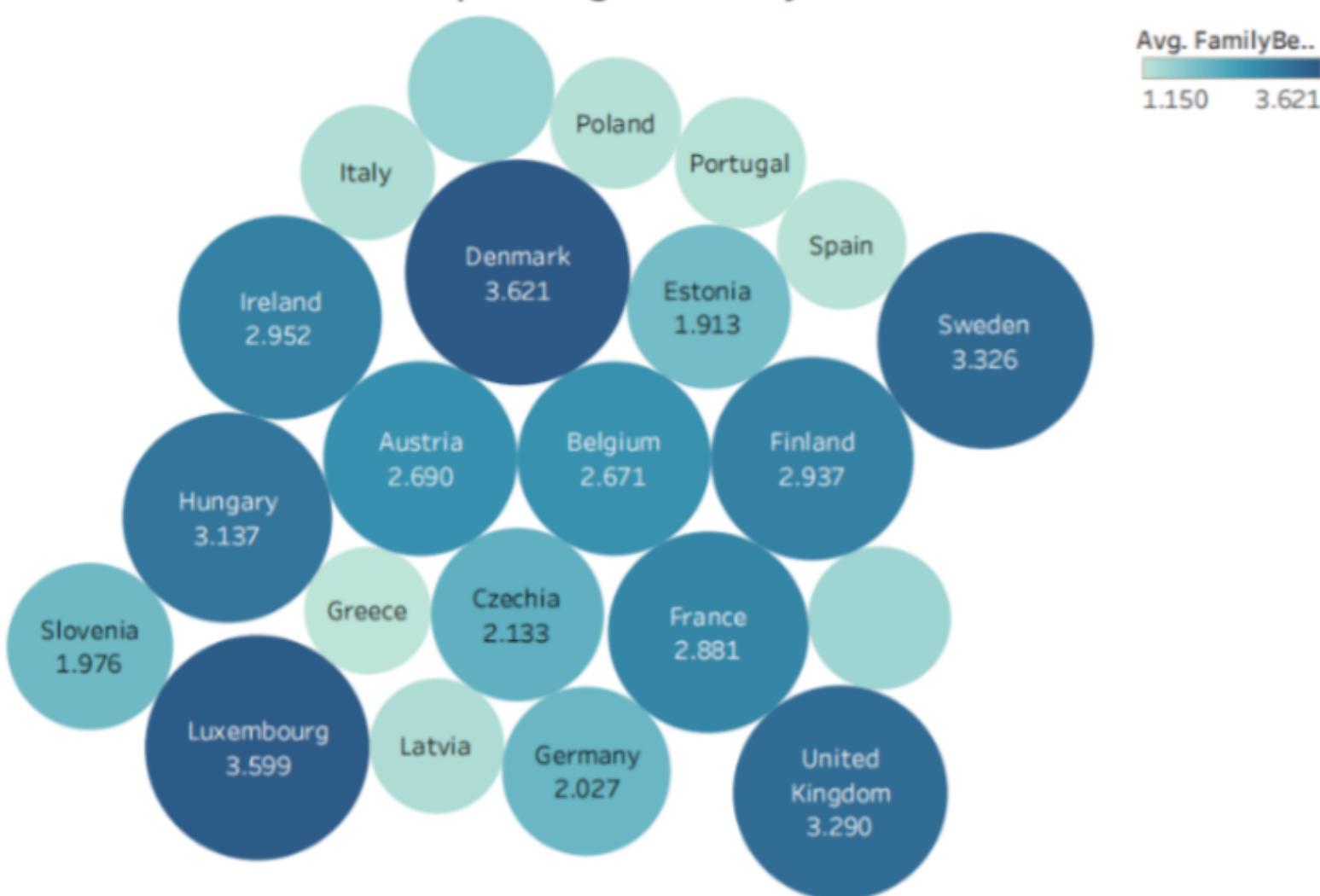
Does fertility affect female labor force participation rate?



02

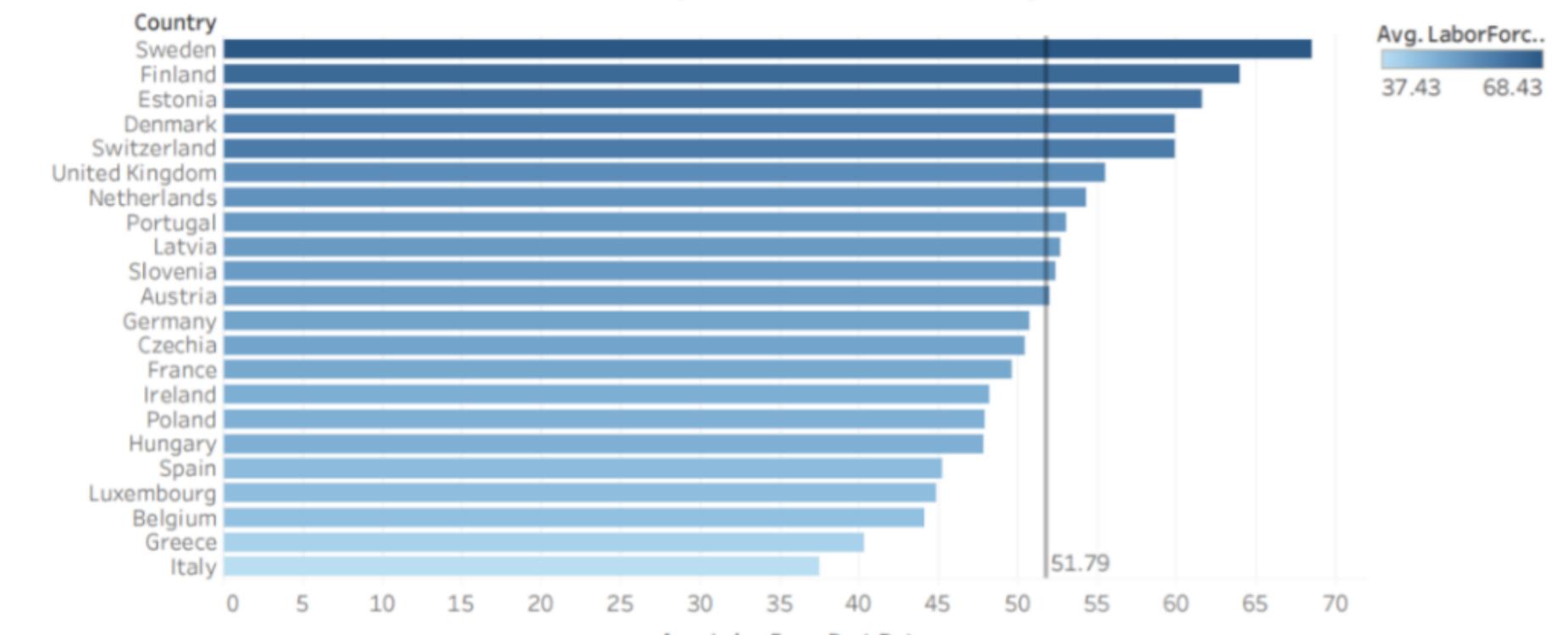
Does public spending on family benefits encourage women's employment?

Packed Bubbles_Public Spending on Family Benefits



Country and average of FamilyBenefitsPubSpending (% GDP). Color shows average of FamilyBenefitsPubSpending (% GDP). Size shows average of FamilyBenefitsPubSpending (% GDP). The marks are labeled by Country and average of FamilyBenefitsPubSpending (% GDP). The data is filtered on European Countries, which keeps European Countries.

Bar Chart_Female Labor Force Participation Rates in European Countries

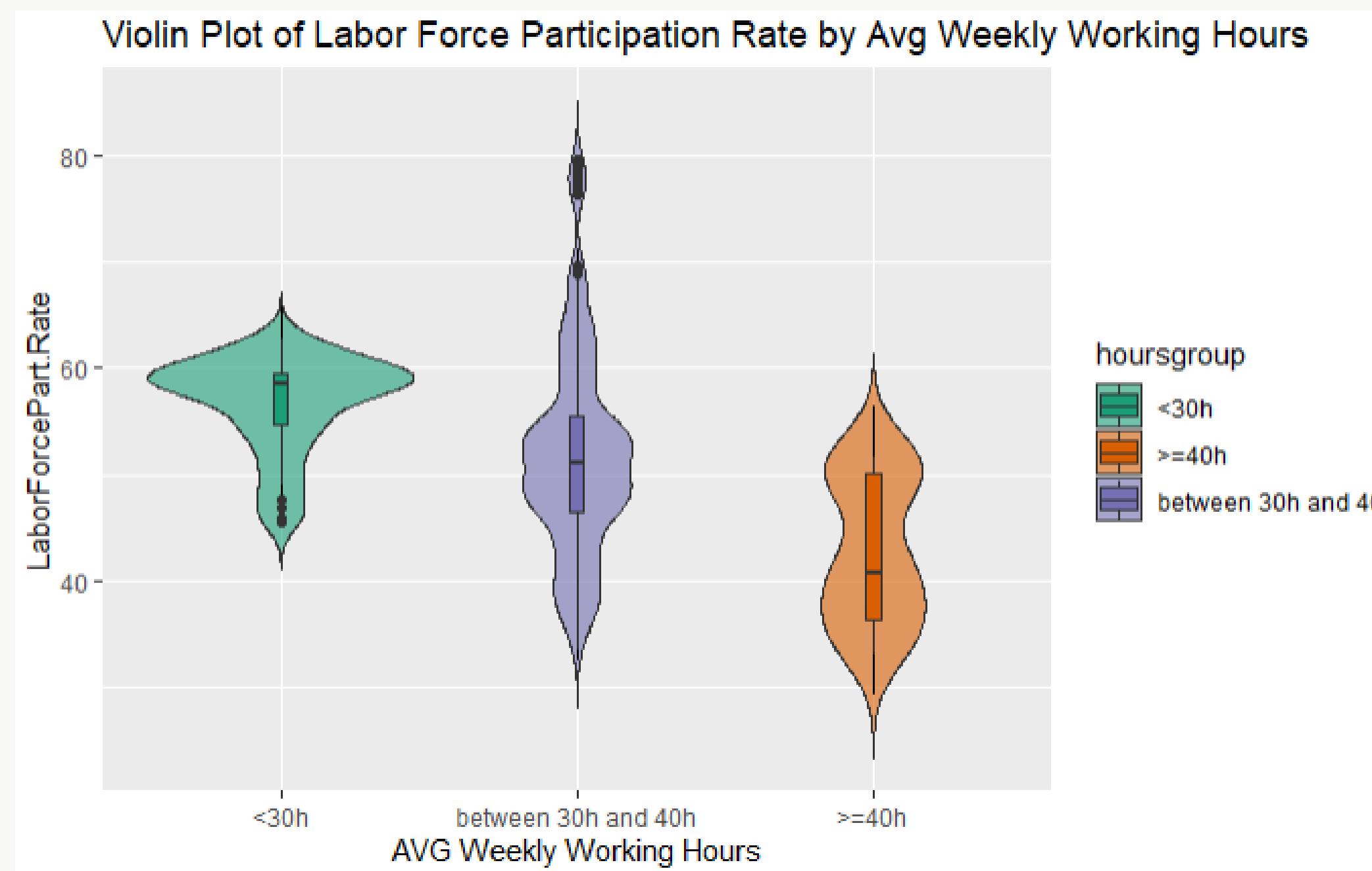


Average of LaborForcePart.Rate for each Country. Color shows average of LaborForcePart.Rate. The data is filtered on European Countries, which keeps European Countries.



03

Do Women's weekly working hours affect female labor force participation rates in European countries?



04

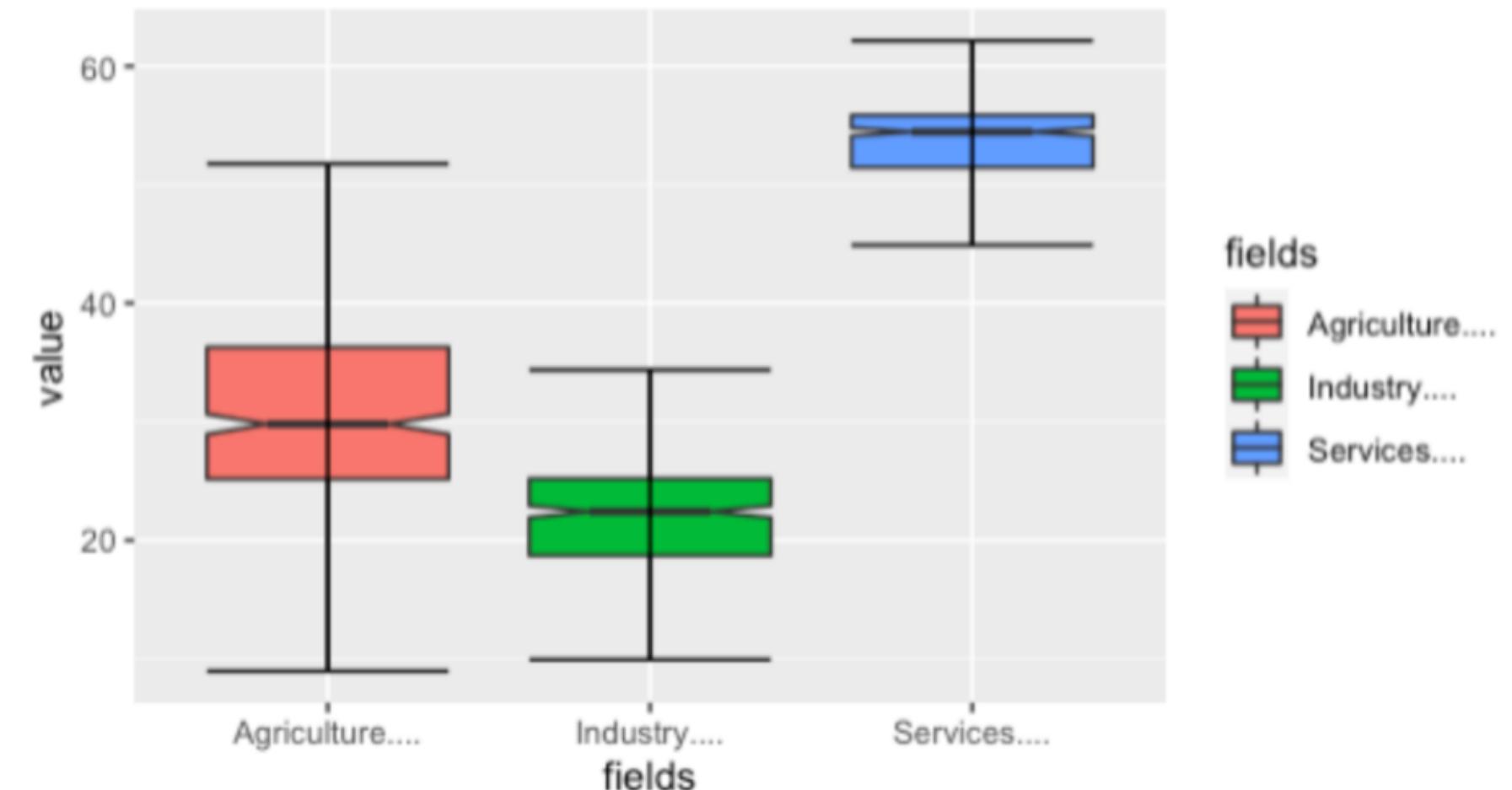
Do different working fields affect female labor force participation rate?

Treemap_Women's Share of Employment in the Service Sector



Country and average of Services (%). Color shows average of Services (%). Size shows average of Services (%). The marks are labeled by Country and average of Services (%). The data is filtered on European Countries, which keeps European Countries.

Boxplot of Female Share of Employment in Economic Sectors(Without Outliers)



05

Does female employment to population ratio affect female labor force participation rate?

Call:
lm(formula = LaborForcePart.Rate ~ EmploymentPopulationRatio...,
data = Emp_Lab)

Residuals:

Min	1Q	Median	3Q	Max
-5.923	-2.231	-1.104	1.103	9.752

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	7.98710	0.95599	8.355	8.6e-16 ***
EmploymentPopulationRatio...	0.94992	0.02084	45.572	< 2e-16 ***

Signif. codes:	0 **** 0.001 *** 0.01 ** 0.05 * . 0.1 . ' 1			

Residual standard error: 3.417 on 441 degrees of freedom

Multiple R-squared: 0.8248, Adjusted R-squared: 0.8244

F-statistic: 2077 on 1 and 441 DF, p-value: < 2.2e-16

Scatter Plot of Women Employment Population Ratio Drives Female Labor Force Participation Rate(Without Outlier)

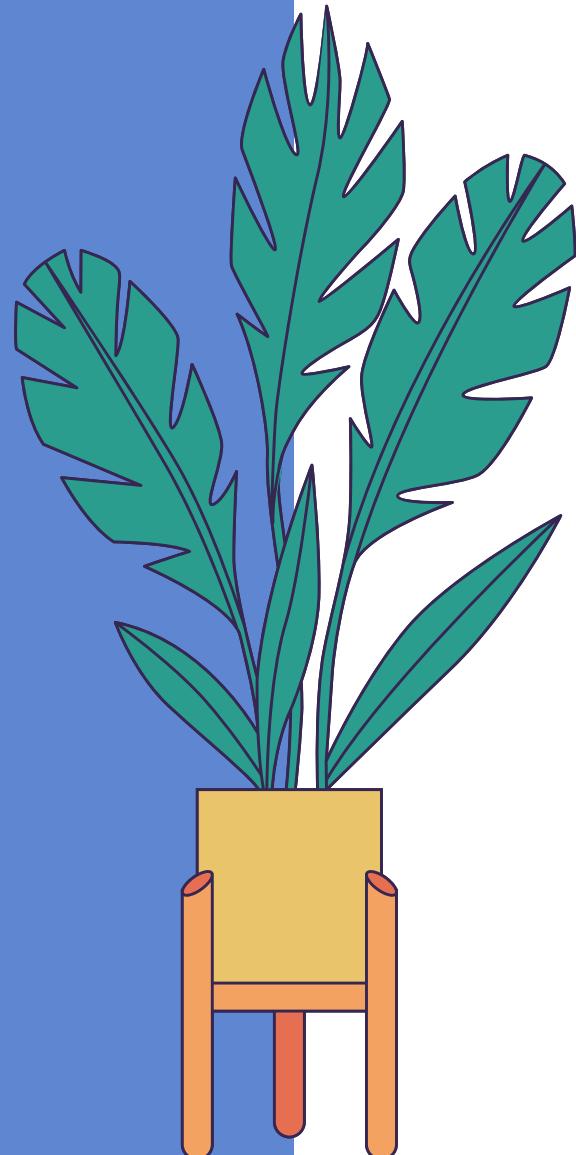




Insights and Recommendations

- 01 Improving the welfare and social security of women giving birth to children might encourage female to participate working without any concerns.
- 02 Providing more financial support for families and children can encourage more women to participate in the labor force
- 03 Long working hours discourage women's participation rate in the labor force
- 04 Companies and countries that focus on service areas are more likely to hire women
- 05 If companies or the society employs more women, it would encourage women to participate in the labor force more actively

Reflection



01

DATA FINDING

Importance of data quality
Data cleaning and preparation
Version Control

02

INFORMATION VISUALIZATION

R library - (Pivot)
Easy to understand
Other problems encountered using
R and Tableau

03

GREAT TEAM WORK

Everyone adapts to competitive
advantages
Actively participated in weekly
meetings

Thank you!



Feel free to approach us
if you have any questions.