



# The Influence of Children and Job on Female Subjective Well-being

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# Introduction

- Problem and motivation
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- Theoretical background
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- Data
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# Problem and motivation

Female  
employment  
growth

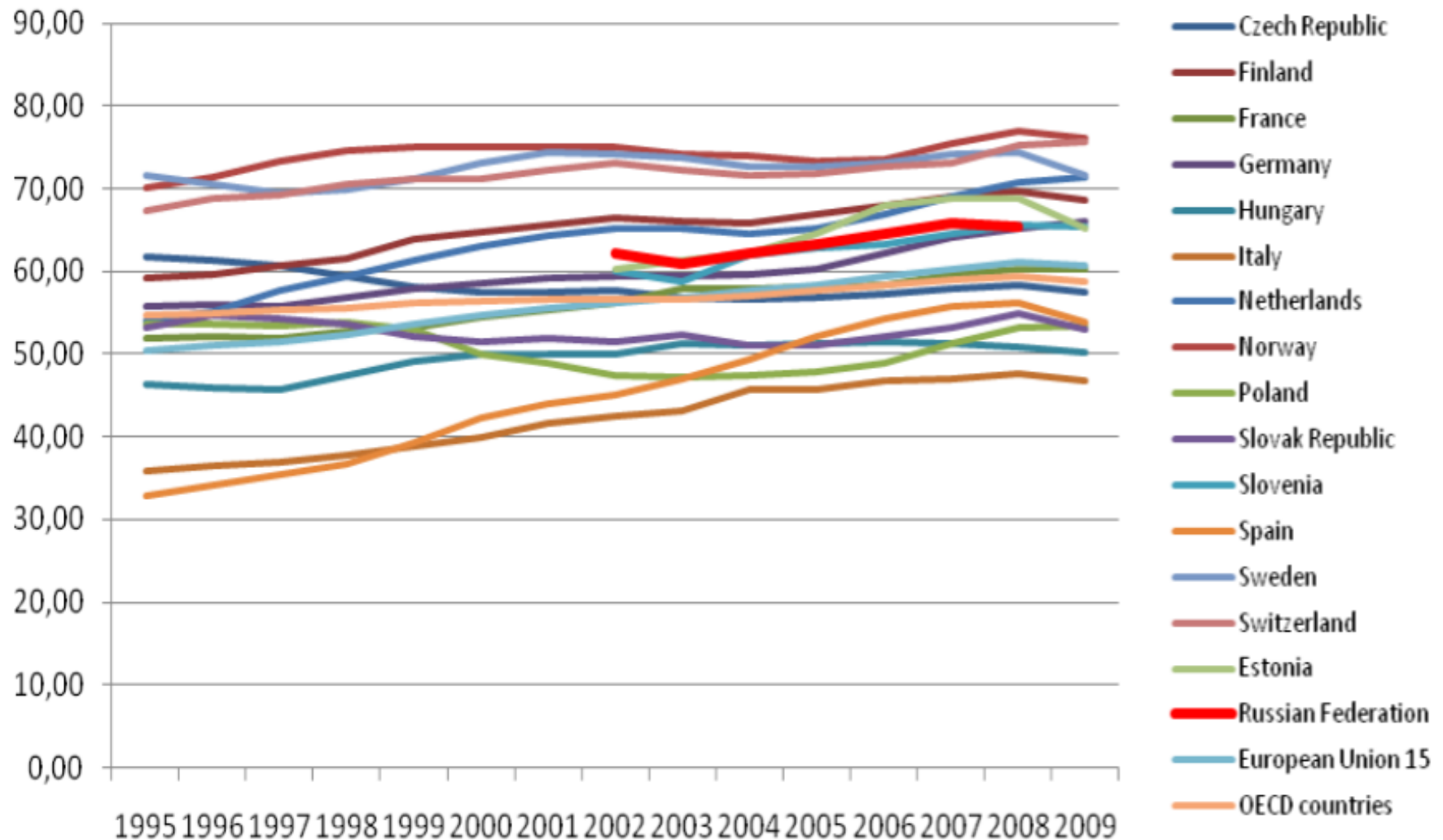
- Increase of mothers on the labour market
- Increase of female mobility

Decrease of  
fertility rate

- Changes in the number of children in the family
- Changes of the family-work time budget

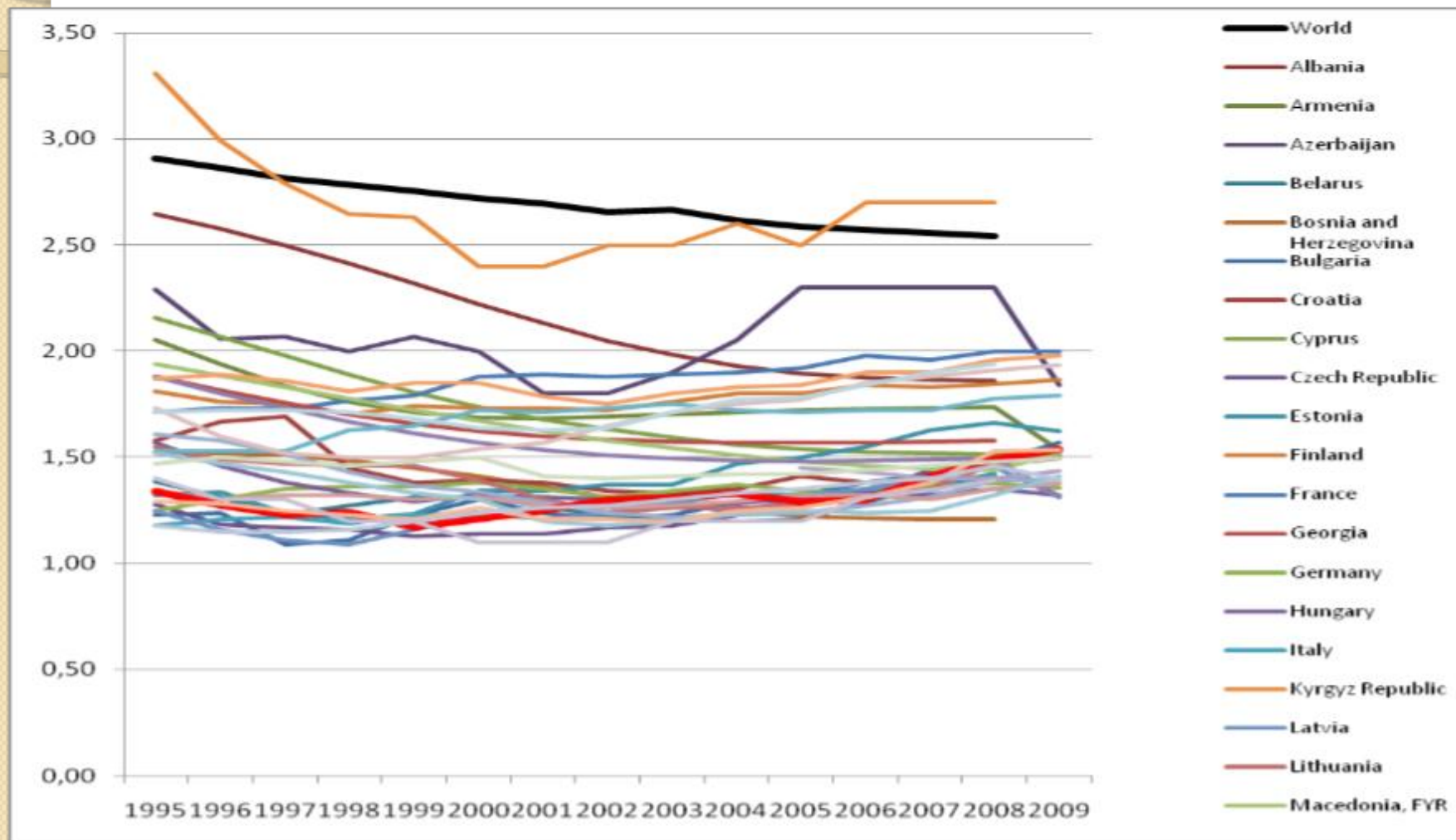
# Female Employment Level (World Bank data)

Female employment rate varies from 33% in 1994 for Italy to almost 77% in 2008 for Finland



# Fertility rates (World Bank data)

- Substantial decline in fertility rates from above replacement levels to well below replacement levels (according to WB statistics: from 2,8 in 1995 to almost 2,5 in 2009).



# Problem and motivation

Long time and stressful reentering


Decrease of job satisfaction

Less total happiness

Possible rejection from second and third child or choice for career instead of children

After difficult and longtime reentering of the labour market women may be discouraged to have the second and the third baby (Hoem & Hoem, 1989; Kravdal, 1992). The prospects for a good career decreases the parenthood (Bloom and Trussell 1984; Kiernan 1989; Jacobson and Heaton 1991; Maxwell 1991; Brewster, 1994; etc.).

# Research question and main goal

- My focus here is to trace the effects on social well-being counted as life satisfaction and happiness for females of their labour market status and number of children they have.
- Comparative research  the main idea is to identify the differences for the countries in terms of institutional background.
- The research question is to find out DOES effects of job and children on subjective well-being for females differ across the countries with respect to the institutional background.

# Theoretical background

The main theory for the research is the dual labour markets or open/closed labour markets:

**Doeringer and Piore** “Internal Labor Markets and manpower Analysis” (1971); **Sorensen** “Processes of allocation to open and closed positions in social structure” (1983); **Lindbeck and Snower** “The Insider-Outsider Theory” (2002)

## Open/Liberal labour markets

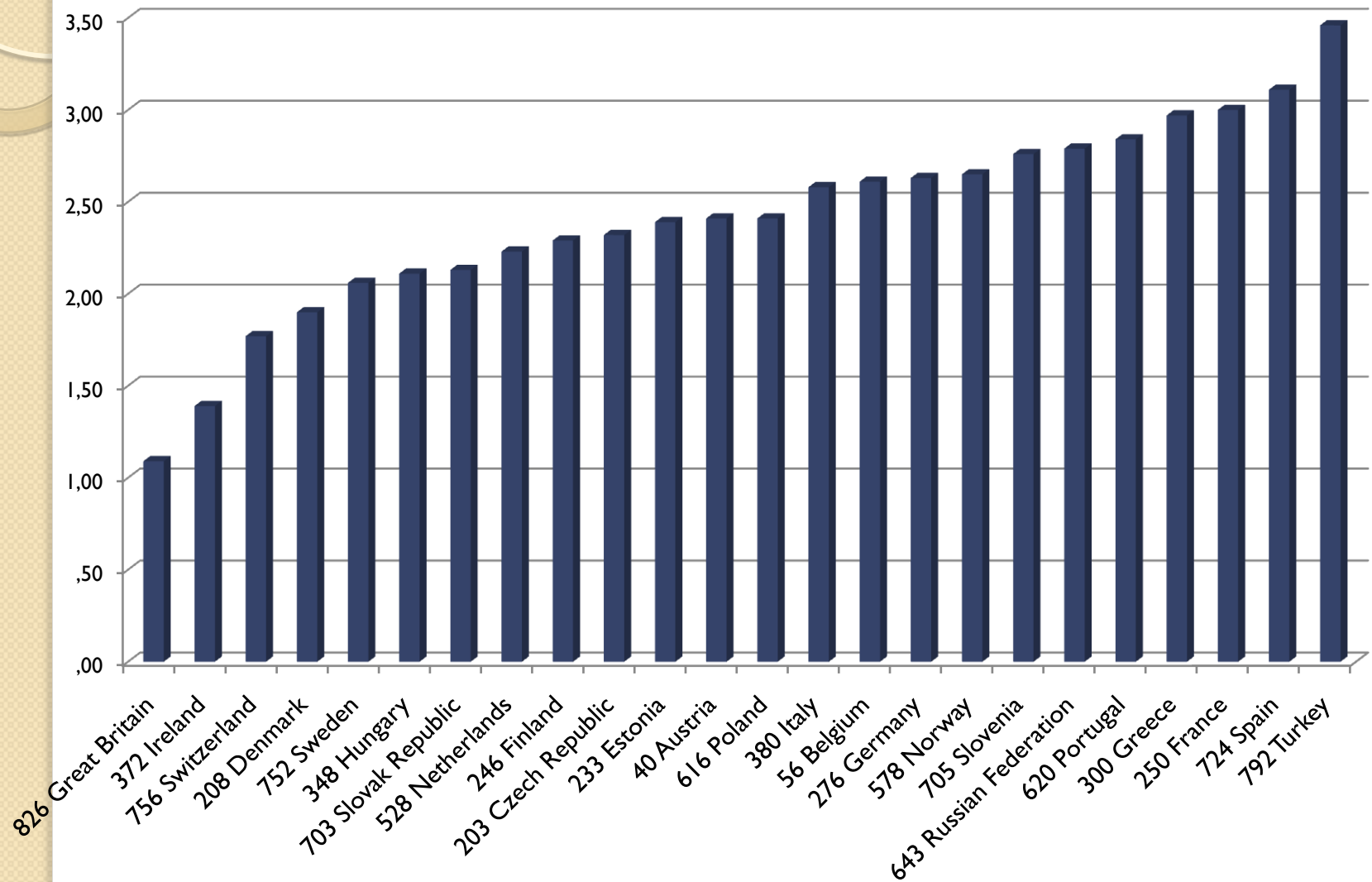
- Weak protection legislation
- Low firing and hiring costs
- No restriction in creation of vacancies
- Low unemployment rate and low share of long-term unemployed
- No barriers to enter and REENTER the labour markets

## Closed/ Strickt labour markets

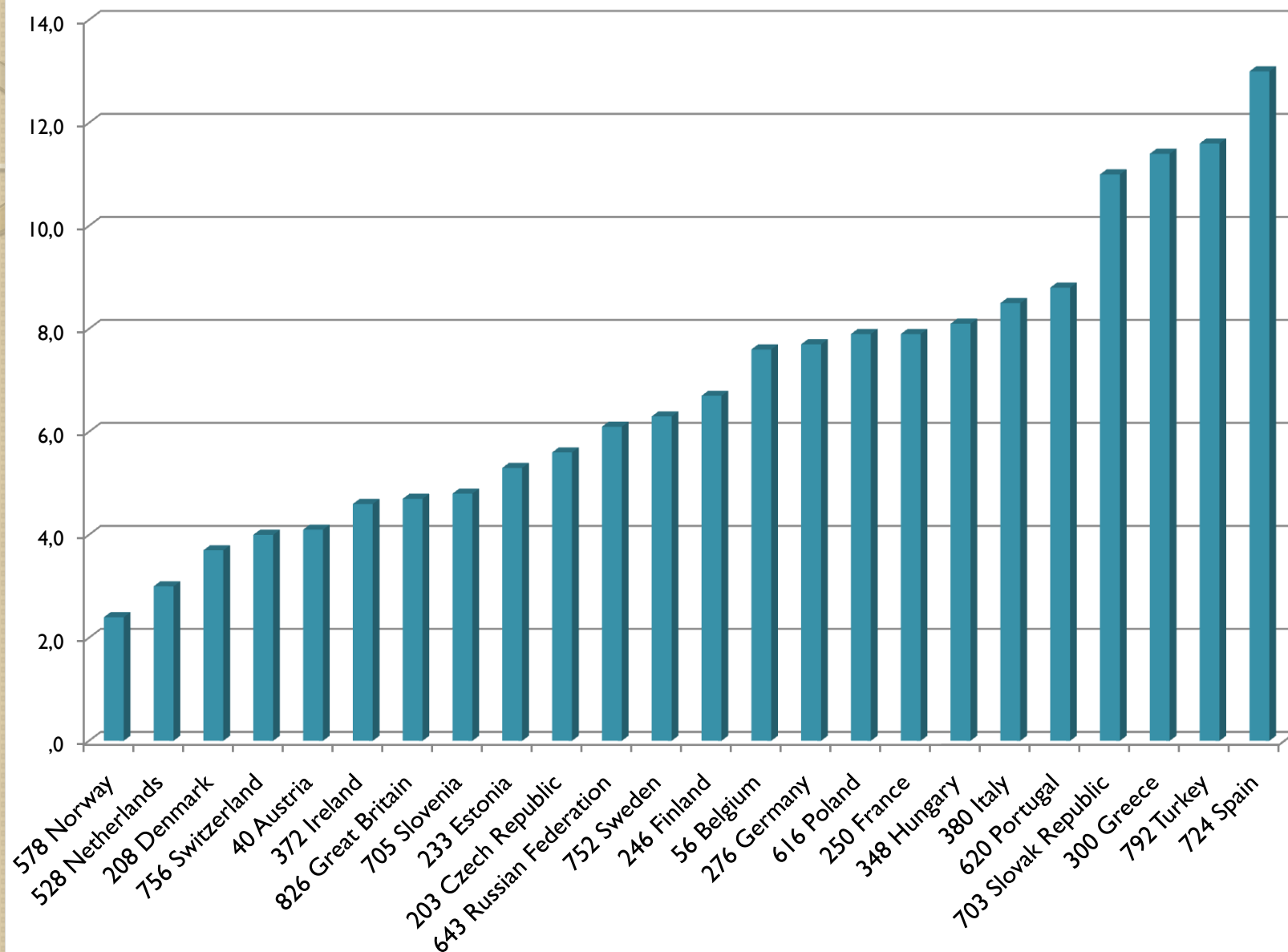
- Strong protection legislation
- High firing and hiring costs
- Restricted umber of vacancies
- Rather high unemployment rate and big share of long term unemployed
- Difficulties to enter and REENTER the labour market

# Employment protection in OECD, 2008

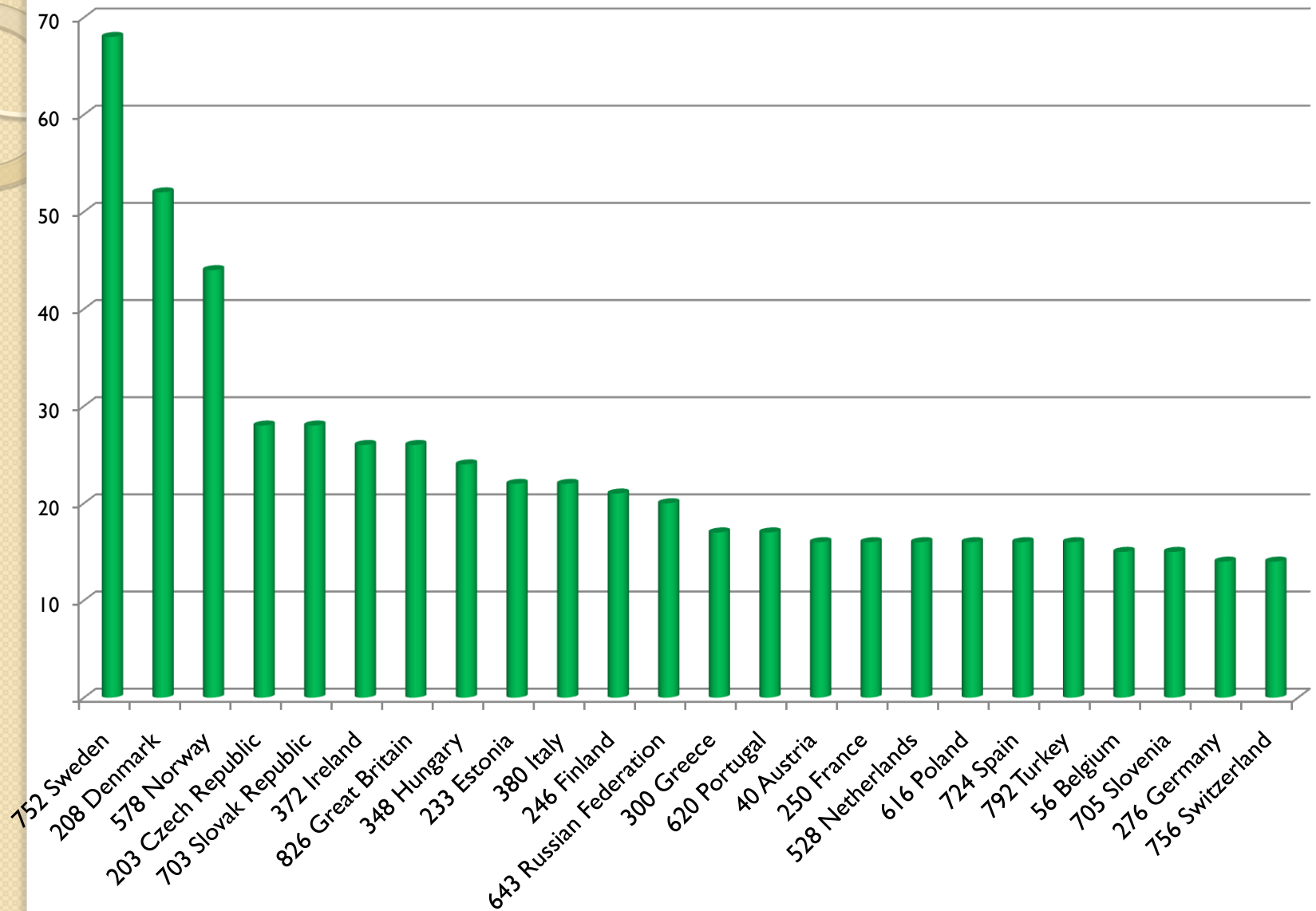
Scale from 0 (least restrictions) to 6 (most restrictions)



# Female unemployment rate, ILO 2008



## Number of weeks for paid maternity leave, OECD 2008



# Literature review

- Women's sustained movement into the paid labor force impels the hypothesis that the rewards of work have increased relative to those of family life (Kiecolt, 2003)
- Work has become a major source of satisfaction for women, as it is for men. But at home, women still bear primary responsibility for house-work, and work/family conflict adversely affects family functioning (Coltrane, 2000; Glass & Estes, 1997).
- **On the one hand** a large amount of publications make focus on the effect of the increased female employment on fertility rate as a result of the higher opportunity costs associated with the participation on the labor market (Becker, 1991; Cigno, 1991; Ermisch, 2003; Michaud and Tatsiramos, 2008).
- **On the other hand** huge piece of literature investigates the effect of fertility on employment (Browning, 1992; Nakamura and Nakamura, 1985; Carrasco 2001; Michaud and Tatsiramos, 2008), at the same time some papers show that “the size of the effect of additional children on labor supply depends crucially on how past labor supply and existing children are accounted for” (Michaud and Tatsiramos, 2008).

# Paper contribution

- The **paper contribution** is that it is focused **on females only**, underlying the contradiction between having children and job under **the cross country comparison**.
- Hanson and Sloane (1992) focused on how does the presence of young children affect the job satisfaction of married women in various work roles (e.g., full-time work in the labor force, part-time work in the labor force, and full-time work in the home). Unlike Hanson and Sloane I am interested **not only to see** how “the presence of family responsibilities affects their happiness at work” **but to trace their life satisfaction and happiness as a whole**.
- **The paper focuses on all women** in order to compare the happiness of those who have children with those who does not have. This is the main distinction from the Berger’s paper (2009 ). Berger did not take into account the happiness of women without children. The main focus of that paper is on German situation for working mothers who are unable to combine family responsibilities with full-time work due to insufficient access to appropriate childcare. Berger analyses whether this problem has a significant impact on the mothers’ subjective well-being.
- **Main distinction of the paper is to underline the countries differences for female happiness dependence on work/children combinations that was not done yet.**

# Hypotheses

## **Hypothesis 1:**

***In countries with liberal/open labour market (with low EPL) the rates of subjective well-being for females with children will be higher. While in countries with extremely strict labour legislation (with high EPL) employed females with children would be unhappy and unsatisfied.***

In other words ***the more restricted the Employment Protection Legislation (the higher the EPL) the higher the effect of having a job than of having children.***

**Explanation:** Due to the fact that more liberal employment laws cause less barriers for reentering the labour market, women are not afraid to lose their jobs as it is easy for them to find a new one. This could be explained by the barriers of entering the labour market for the newcomers. In case of low level of regulations from the state employers have almost no firing and hiring costs what determines the easiness of hiring process. Then women could easily re-enter the labour market in countries with low EPL. In case of highly regulated labour market the employers bear heavy labour costs and this enhances strong barriers of reentering the labour market. That is why working mothers from such countries as Spain, France, Russia and Germany facing all these difficulties could be unsatisfied with having both jobs and children.

### **Hypothesis 2:**

***In countries with strong social policies and family oriented labour legislation (with high number of weeks for paid maternity leave) the effects from combination of job and children would be higher on female subjective well-being***

***While working mothers in the countries with poor social policies toward family protection (low number of weeks for paid maternity leave) would be less happy.***

### **Explanation:**

In countries with better protection females are more safe and have no fear of childbearing break, while in the countries with no maternity protection women have to take care of their career and could be more satisfied with their life when they have a good job instead of children.

# Data

- European Value Survey, 2008
- 46 countries (reduced to 24 countries for multilevel)
- Women aged 17-54, total female sample 24442 (reduced to 8737 for multilevel)

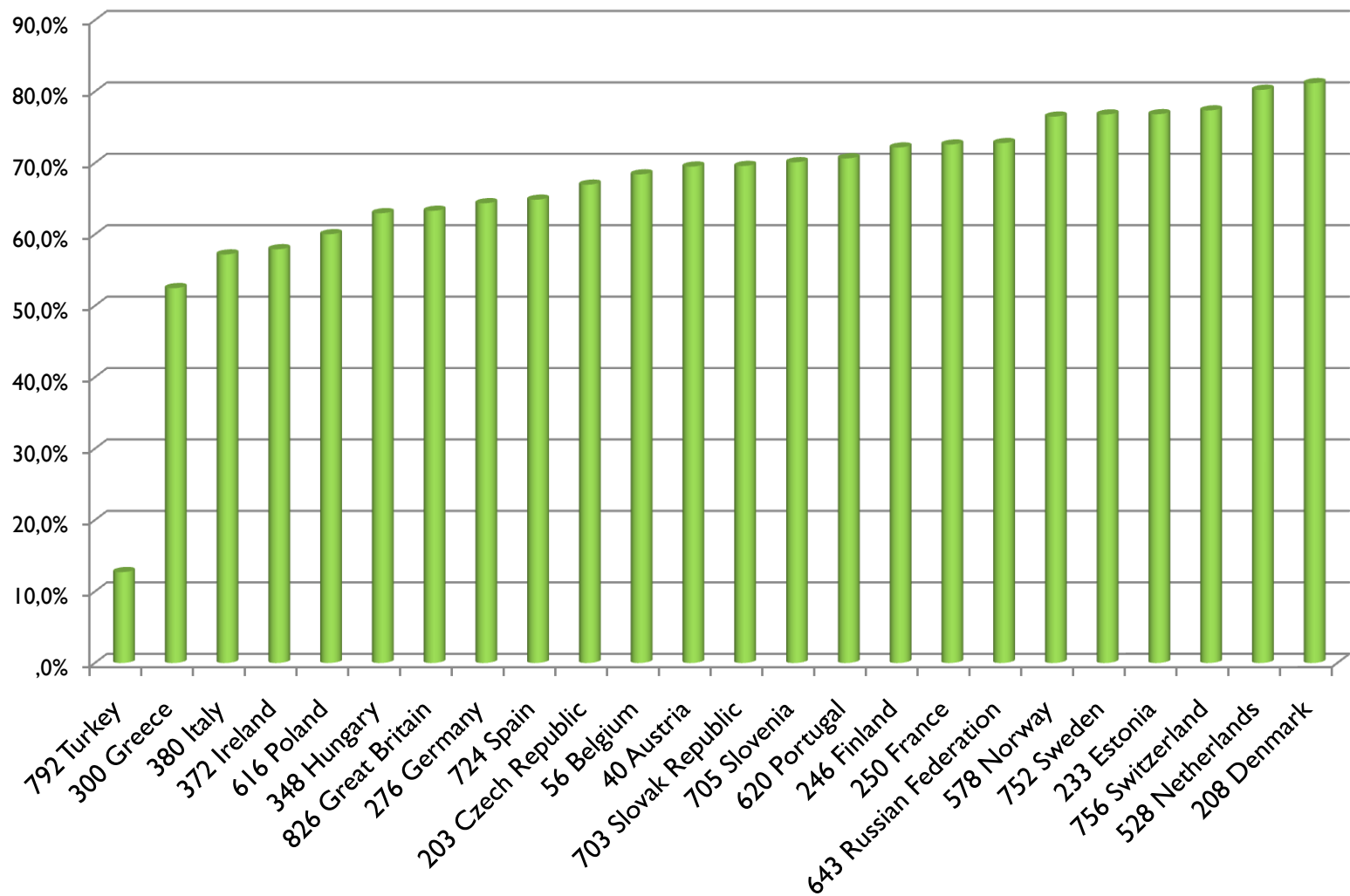
1. Austria
2. Belgium
3. Czech Republic
4. Denmark
5. Estonia
6. Finland
7. France
8. Germany
9. Greece
10. Hungary
11. Ireland
12. Italy

13. Netherlands
14. Norway
15. Poland
16. Portugal
17. Russian Federation
18. Slovak Republic
19. Slovenia
20. Spain
21. Sweden
22. Switzerland
23. Turkey
24. Great Britain

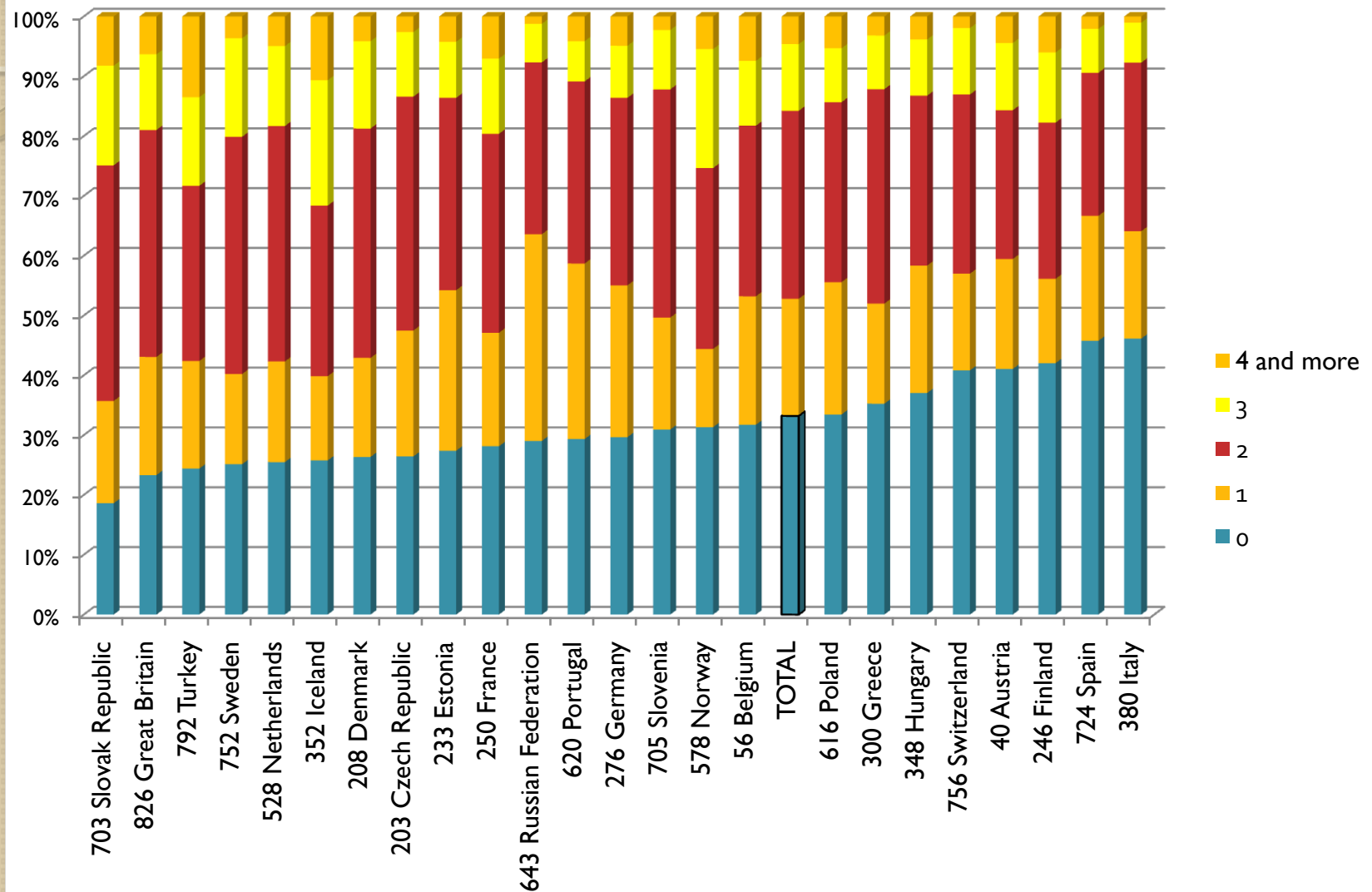
# Terms and definitions

- Happiness is measured by the 4 point scale (1 – not happy at all,..., 4 – very happy) – transferred to standardized happiness 0...1 index
  - $(X_i - \text{minimum}) / (\text{maximum} - \text{minimum})$
- Life satisfaction is measured by 10 point scale (1 – dissatisfied,..., 10 – satisfied) - transferred to standardized satisfaction 0...1 index
  - $(X_i - \text{minimum}) / (\text{maximum} - \text{minimum})$
- Subjective Well-being index – sum of the two previous / 2

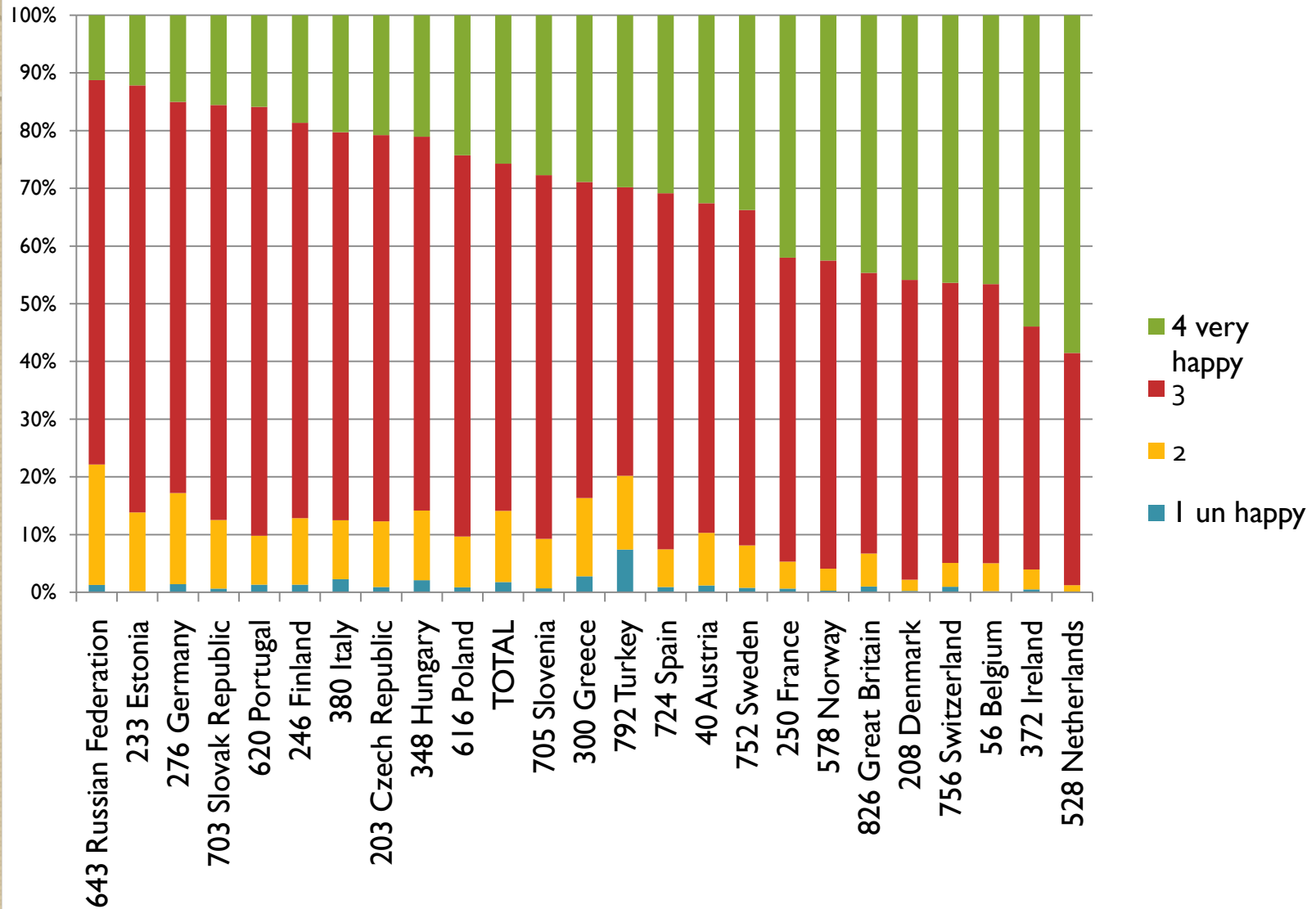
# Share of employed women by country, EVS, 2008



# Number of children women have by country, EVS, 2008



# Happiness of women by country, EVS, 2008



# Methodology

## Level 1 (individual)

### **DEPENDENT VARIABLE:**

**Subjective Well-  
being index**

### **INDEPENDENT VARIABLES**

#### Main tested variables:

- Number of children
- Paid employment
- Interaction of N\_children and employment

#### Controls:

- Age
- Subjective Health (stand index 0-1)
- Married or cohabiting
- Divorced, separated, widowed
- Middle education level
- Upper educational level
- Household monthly income ppp

# Methodology

## Level 2 (country)

### Main tested variables:

- EPL
- Female unemployment rate (as proxy for openness)
- Duration of maternity leave benefits paid (N weeks)

### Controls:

- HDI
- GII

# Multilevel models (main effects)

- $$SUBJ\_WEL_{ij} = \beta_{0j} + \beta_{1j}*(N\_CHILD_{ij}) + \beta_{2j}*(EMPLOYED_{ij}) + \beta_{3j}*(N\_CH\_EMP_{ij}) + \beta_{4j}*(AGE_{ij}) + \beta_{5j}*(HEALTH\_S_{ij}) + \beta_{6j}*(MARRIED_{ij}) + \beta_{7j}*(DIVORCED_{ij}) + \beta_{8j}*(MIDDL\_ED_{ij}) + \beta_{9j}*(UPPER\_ED_{ij}) + \beta_{10j}*(INCOME\_P_{ij}) + r_{ij}$$
- 1. 
$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(EPL_j) + \gamma_{02}*(HDI_j) + \gamma_{03}*(GII_j) + u_{0j}$$
- 2. 
$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(FEM\_UNEM_j) + \gamma_{02}*(HDI_j) + \gamma_{03}*(GII_j) + u_{0j}$$
- 3. 
$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(NWEEK\_MA_j) + \gamma_{02}*(HDI_j) + \gamma_{03}*(GII_j) + u_{0j}$$

# Multilevel model (interaction effects)

- $$\begin{aligned} SUBJ\_WEL_{ij} = & \gamma_{00} + \gamma_{01} * EPL_j + \gamma_{02} * HDI_j + \gamma_{03} * GII_j \\ & + \gamma_{10} * N\_CHILD_{ij} \\ & + \gamma_{20} * EMPLOYED_{ij} + \gamma_{21} * EPL_j * EMPLOYED_{ij} \\ & + \gamma_{30} * N\_CH\_EMP_{ij} + \gamma_{31} * EPL_j * N\_CH\_EMP_{ij} \\ & + \gamma_{40} * AGE_{ij} \\ & + \gamma_{50} * HEALTH\_S_{ij} \\ & + \gamma_{60} * MARRIED_{ij} \\ & + \gamma_{70} * DIVORCED_{ij} \\ & + \gamma_{80} * MIDDLE\_ED_{ij} \\ & + \gamma_{90} * UPPER\_ED_{ij} \\ & + \gamma_{100} * INCOME\_P_{ij} \\ & + u_{0j} + u_{1j} * N\_CHILD_{ij} + u_{2j} * EMPLOYED_{ij} + \\ & u_{3j} * N\_CH\_EMP_{ij} + u_{5j} * HEALTH\_S_{ij} + u_{8j} * MIDDLE\_ED_{ij} + \\ & u_{9j} * UPPER\_ED_{ij} + u_{10j} * INCOME\_P_{ij} + r_{ij} \end{aligned}$$

# I. Results for multilevel (EPL), fixed effects with robust standard errors

		Multilevel Regression (Main-Effect Model)		Multilevel Regression (Cross-Level-Interaction- Effect Model)	
Level 1 (8737 Respondents)	R <sup>2</sup>	22.03 %		22.2%	
Level 2 (24 Countries)	R <sup>2</sup>	67.3 %		68.6%	
		b	t	b	t
Intercept		0,306	2,34**	0,253	1,96*
Employment protection legislation		-0,027	-3,58**	-0,006	-0,56
Human Development Index 2008		0,346	2,47**	0,350	2,56**
GII		0,066	0,80	0,064	0,78
N_children		0,001	0,25	0,001	
Employed		-0,006	-0,75	-	-
N_children*employed		0,007	1,83*	-	-
Employed				0.049	2.06*
EPL				-0.022	-2.36**
N_children*Employed				0.007	1.10
EPL				-0.0004	-0.15
Age		-0,001	-5,98*	-0,001	-6,07**
Subjective Health_standardized		0,243	17,72**	0,243	17,84**
Married		0,041	7,82**	0,041	7,75**
Divorced or widowed		-0,029	-3,79**	-0,028	-3,76**
Education middle level		0,013	2,25**	0,013	2,13*
Education upper level		0,021	2,97*	0,021	2,87**
Household income corrected ppp (monthly)		0,013	5,31**	0,013	5,31**

Variance Components (Random Effects)	Variance Compon ent	X <sup>2</sup>	d.f	Variance Compon ent	X <sup>2</sup>	d.f
Level 2						
Intercept	0,006	98,8	20	0,006	95,65	20
N_children	0,000	45,5	23	0,000	45,59	23
Employed	0,001	45,6	23	0,001	39,49	22
N_children*employed	0,000	40,9	23	0,000	40,94	22
Age	0,003	62,5	23	0,003	62,46	23
Subjective						
Health_standardized	0,000	36,2	23	0,000	36,24	23
Married	0,001	39,7	23	0,001	39,70	23
Divorced or widowed	0,000	69,8	23	0,000	70,04	23
Education middle level	0,027	98,8	20	0,027	95,65	20
Education upper level	0,006	45,5	23	0,006	45,59	23
Household income corrected ppp (monthly)	0,000	45,6	23	0,000	39,49	22
Level 1	0,001			0,001		

## 2. Results for multilevel (FE\_UNEMPLOYMENT), fixed effects with robust standard errors

		Multilevel Regression (Main-Effect Model)		Multilevel Regression (Cross-Level-Interaction- Effect Model)	
Level 1 (8737 Respondents)	R <sup>2</sup>	22.5 %		22.6 %	
Level 2 (24 Countries)	R <sup>2</sup>	73.2 %		73.9 %	
		b	t	b	t
Intercept		0,308	3,13**	0,303	3,13**
Female unemployment level		-0,007	-5,87**	-0,006	-3,98**
Human Development Index 2008		0,319	2,97**	0,315	2,93**
GII		0,098	1,88*	0,098	1,87*
N_children		0,001	0,22	0,001	0,22
Employed		-0,006	-0,69	-	-
N_children*employed		0,007	1,84*	-	-
Employed				0.004	0.26
FE_UNEMPLOYMENT		-	-	-0.001	-0.77
N_children*Employed				0.008	1.84*
FE_UNEMPLOYMENT		-	-	-0.0002	-0.044
Age		-0,001	-5,95**	-0,001	-5,99**
Subjective Health_standardized		0,244	17,87**	0,243	17,93**
Married		0,041	7,81**	0,041	7,83**
Divorced or widowed		-0,028	-3,74**	-0,028	-3,73**
Education middle level		0,013	2,29**	0,013	2,23**
Education upper level		0,021	2,95**	0,021	2,86**
Household income corrected ppp (monthly)		0,012	5,21**	0,013	5,23**

Variance Components (Random Effects) Level 2	Variance Compon ent	X <sup>2</sup>	d.f .	Variance Compon ent	X <sup>2</sup>	d.f .
Intercept	0,0054	94,41	20	0,005	93,72	20
N_children	0,0001	45,55	23	0,000	45,54	23
Employed	0,0009	45,69	23	0,001	44,07	22
N_children*employed	0,0002	40,98	23	0,000	41,21	22
Subjective Health_standardized	0,0026	62,56	23	0,003	62,52	23
Education middle level	0,0004	36,10	23	0,000	36,12	23
Education upper level	0,0008	39,62	23	0,001	39,63	23
Household income corrected ppp (monthly)	0,0001	68,75	23	0,000	68,90	23
Level 1	0,0274			0,027		

### 3. Results for multilevel (duration of paid ML), fixed effects with robust standard errors

		Multilevel Regression (Main-Effect Model)		Multilevel Regression (Cross-Level-Interaction- Effect Model)	
Level 1 (8737 Respondents)	R <sup>2</sup>	21.8 %		21.9%	
Level 2 (24 Countries)	R <sup>2</sup>	65.5 %		65.51 %	
		b	t	b	t
Intercept		0,071	0,73	0,052	0,55
Number of weeks for paid maternity leave		0,000	1,32	0,000	0,49
Human Development Index 2008		0,517	4,63**	0,536	4,75**
GII		0,167	2,07*	0,176	2,18**
N_children		0,001	0,33	0,001	0,313
Employed		-0,005	-0,64	-	-
N_children*employed		0,007	1,73*	-	-
Employed				0,001	0,10
N_weeks_maternity				-0,0003	-0,68
N_children*Employed				0,0009	0,19
N_weeks_maternity				0,0002	3,76**
Age		-0,001	-6,00**	-0,001	-6,00
Subjective Health_standardized		0,243	17,67**	0,243	18,08
Married		0,041	7,79**	0,041	7,84
Divorced or widowed		-0,028	-3,78**	-0,028	-3,75
Education middle level		0,013	2,13*	0,013	2,14
Education upper level		0,020	2,83**	0,020	2,81
Household income corrected ppp (monthly)		0,013	5,34**	0,013	5,32

Variance Components (Random Effects) Level 2	Variance Compon ent	X <sup>2</sup>	d.f	Variance Compon ent	X <sup>2</sup>	d.f
Intercept	0,006	96,3	20	0,006	96,6	20
N_children	0,000	45,7	23	0,000	45,6	23
Employed	0,001	45,6	23	0,001	46,2	22
N_children*employed	0,000	40,8	23	0,000	40,7	22
Subjective Health_standardized	0,003	62,5	23	0,003	62,4	23
Education middle level	0,000	36,2	23	0,000	36,2	23
Education upper level	0,001	39,6	23	0,001	39,7	23
Household income corrected ppp (monthly)	0,000	70,0	23	0,000	69,7	23
Level 1	0,027			0,027		



**Thank you for your attention**