

Causes and trends in gender inequality in the labor market. The influence of gender inequality in the family



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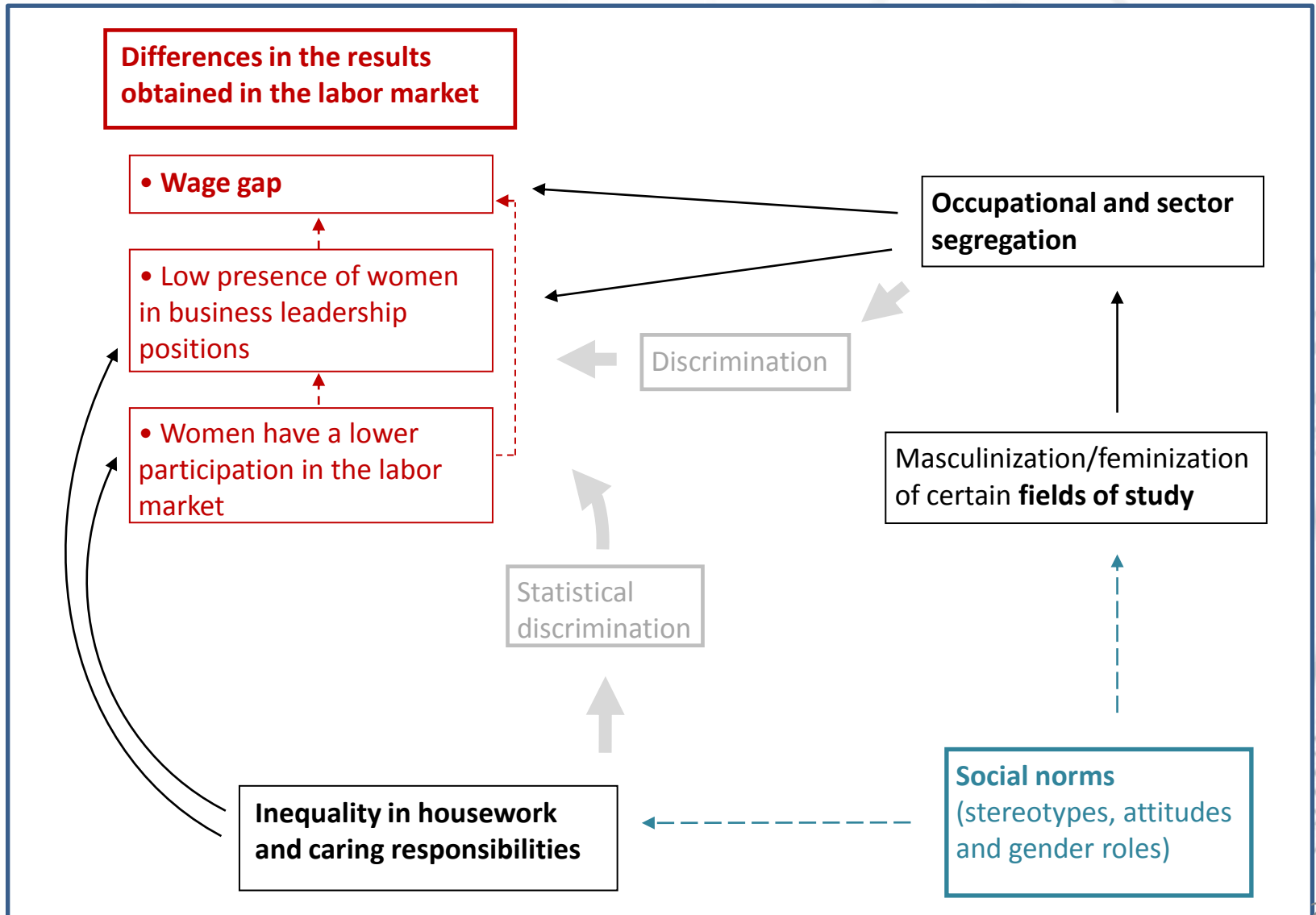
Universidad Complutense de Madrid (<https://www.ucm.es/english>)

Research group “Economic Analysis of Diversity and Equality Policies” (<https://www.ucm.es/aedipi>)

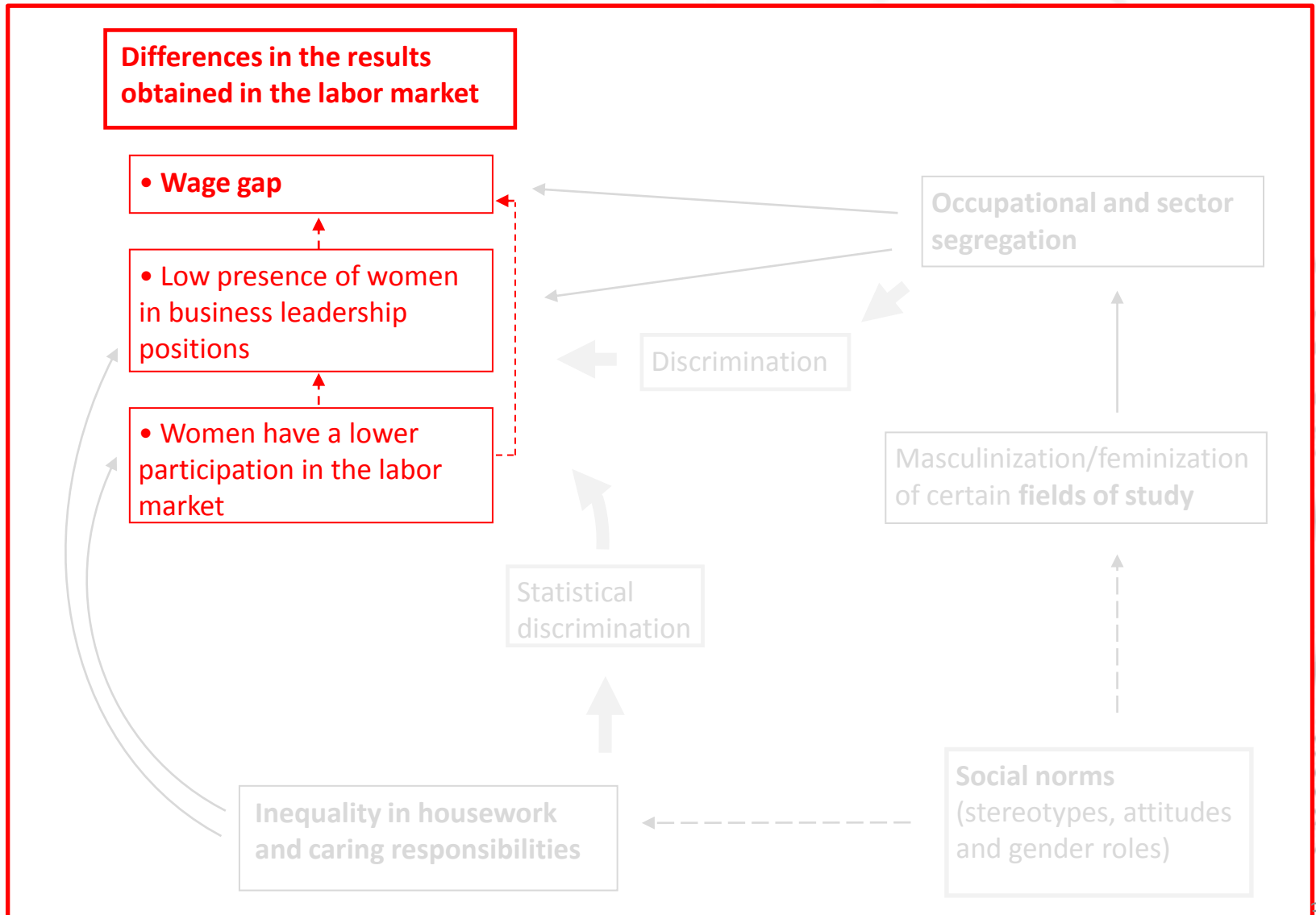
Háskóli Islands

March 2014

Some causes of gender inequality in the labor market (general scheme)

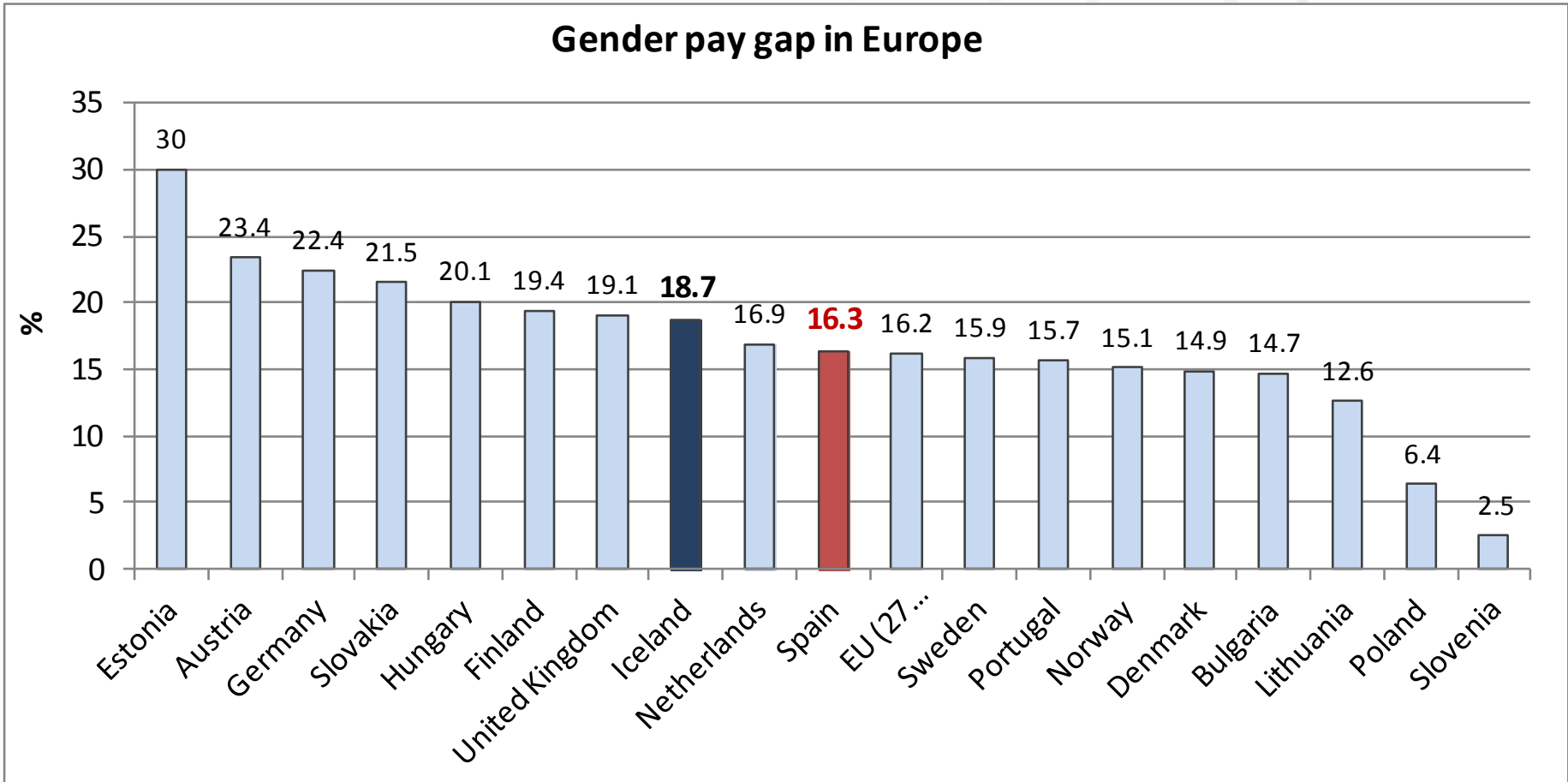


Differences in the results...



Pay gap

The wage gap is a result of gender inequalities in the labor market and in society



Note: The pay gap measures the relative difference in the average gross hourly earnings of women and men within the economy as a whole. It is one of the structural indicators used to monitor the European Strategy for Growth and Jobs. [Structure of earnings survey \(SES\)](#). 2012.

Source: Eurostat http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Gender_pay_gap_statistics

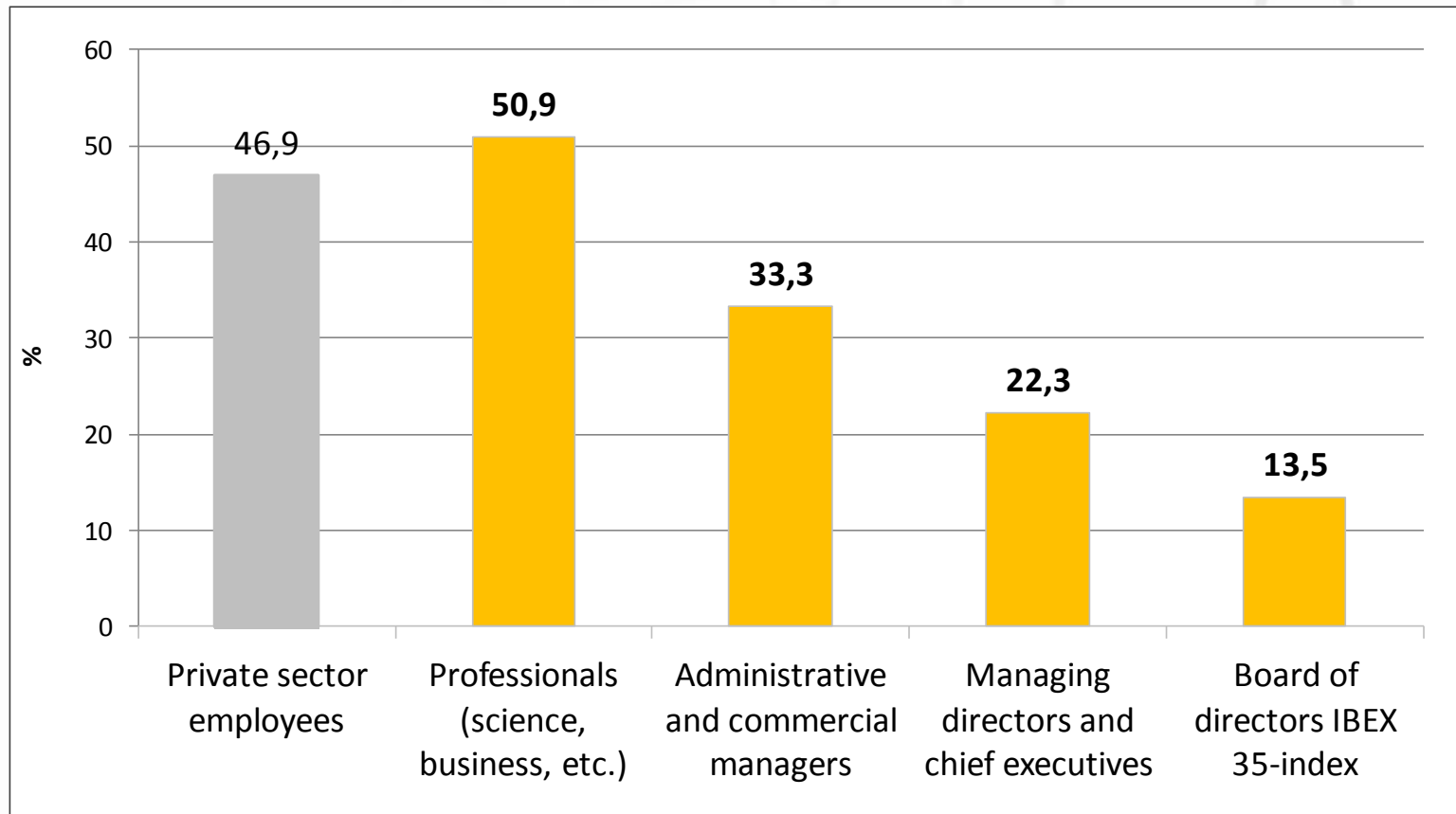
Differences between annual and hourly earnings (why?)

Pay gap in Spain (2011)			
	Women	Men	Gap
Average annual gross earnings	18,910.6 €	24,203.3 €	21.9%
Average gross hourly earnings	13.1 €	15.7 €	16.3%

Source: Encuesta de Estructura Salarial, INE,

One direct cause of the wage gap is the low presence of women in leadership positions in organizations

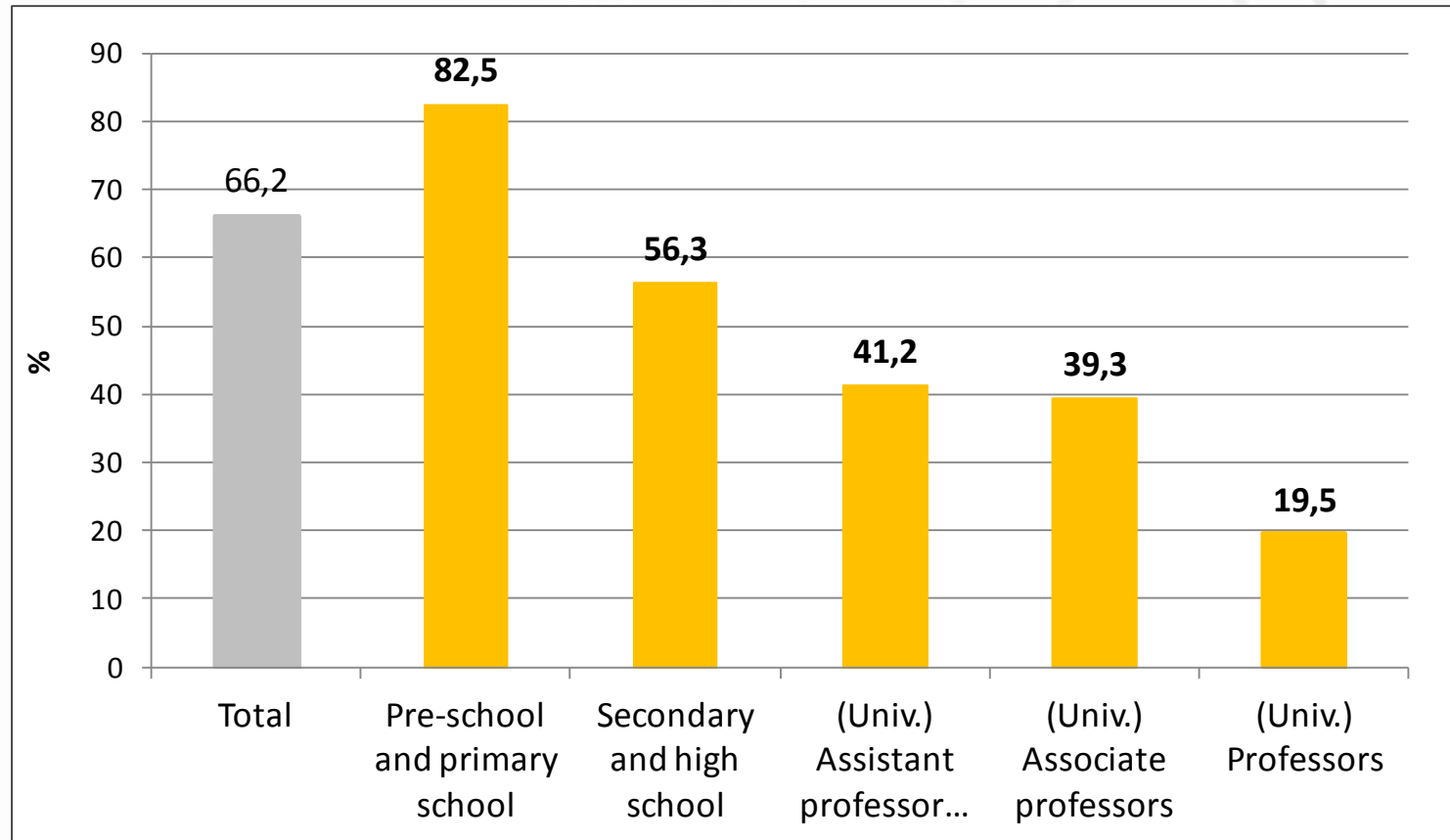
Female presence in several types of occupations of private sector companies. **Spain** 2013
(Percentage of women to total workers in each group)



Source: Encuesta de Población Activa (EPA), INE http://www.ine.es/inebaseDYN/epa30308/epa_inicio.htm
and CNMV <http://www.cnmv.es/portal/home.aspx>

Vertical segregation

Female faculty presence in **Spain**, according to level of education imparted. Year 2011-2012. (Percentage of female teachers to total teachers in each level)



Notas: Data on university teachers only includes public universities; pre-school, primary, secondary and high school include public and private schools.

Fuente: Ministerio de Educación, Cultura y Deporte <http://www.mecd.gob.es/servicios-al-ciudadano-mecd/estadisticas.html>

Women on boards of directors of private companies:



Catalyst

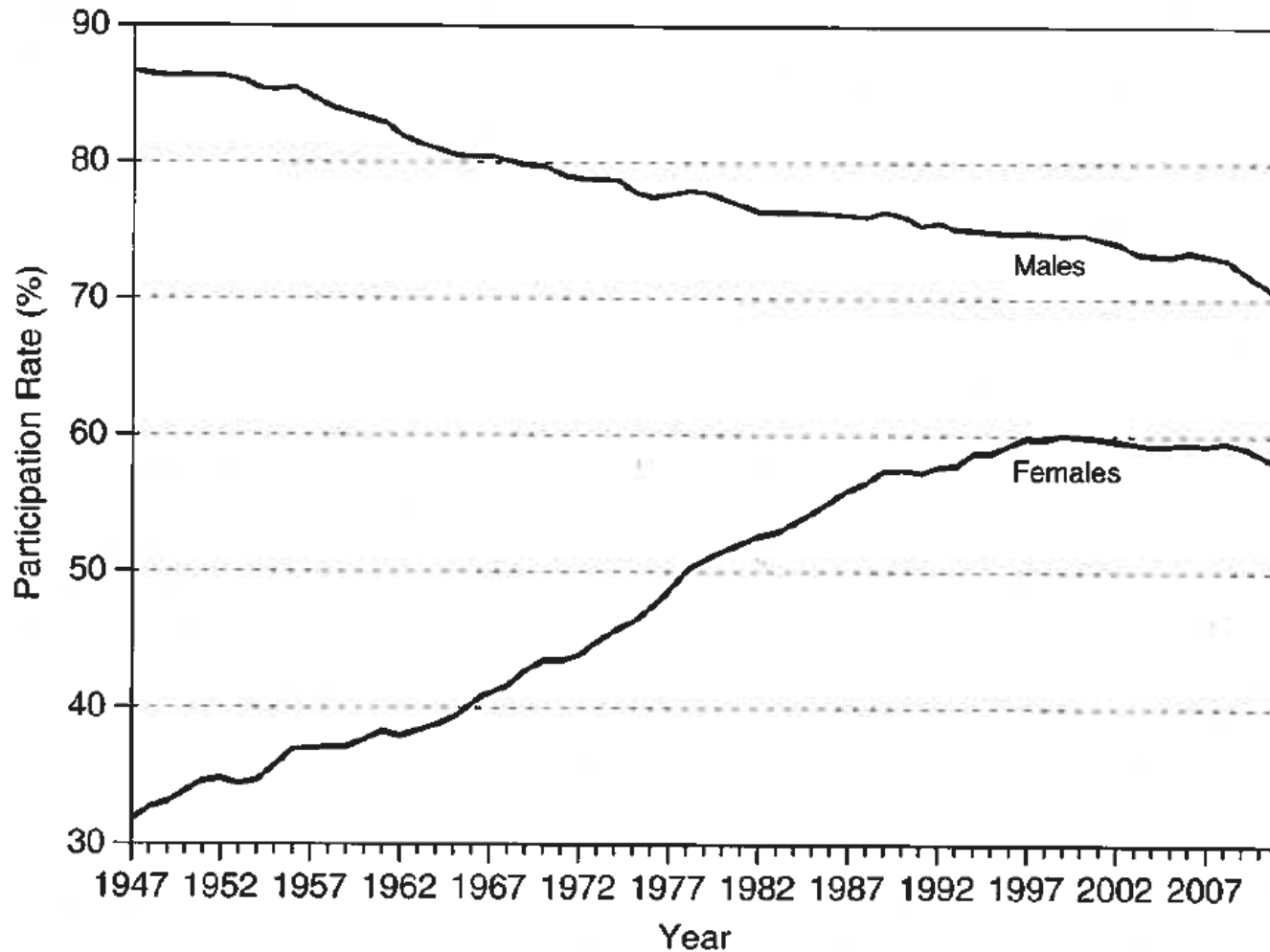


<http://www.catalyst.org/knowledge/women-boards>

Differences in labor force participation

The participation of women in the labor market is still lower than that of men

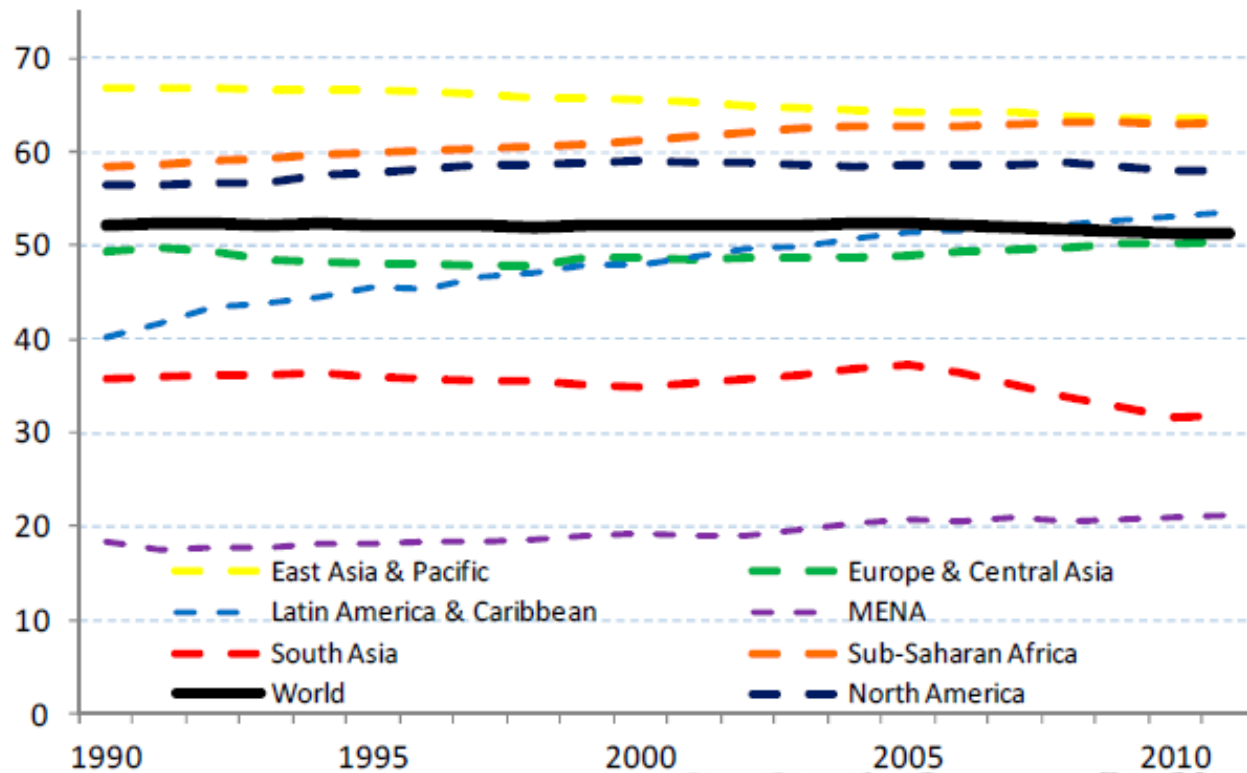
Trends in the evolution of **labor force participation rates** of women and men, **U.S., 1947-2011**



Source: Blau, F. C.; Ferber, M. A.; and Winkler, A. E. (2014): *The Economics of Women, Men and Work*, seventh edition, Pearson, New York (From Current Population Survey (USA))

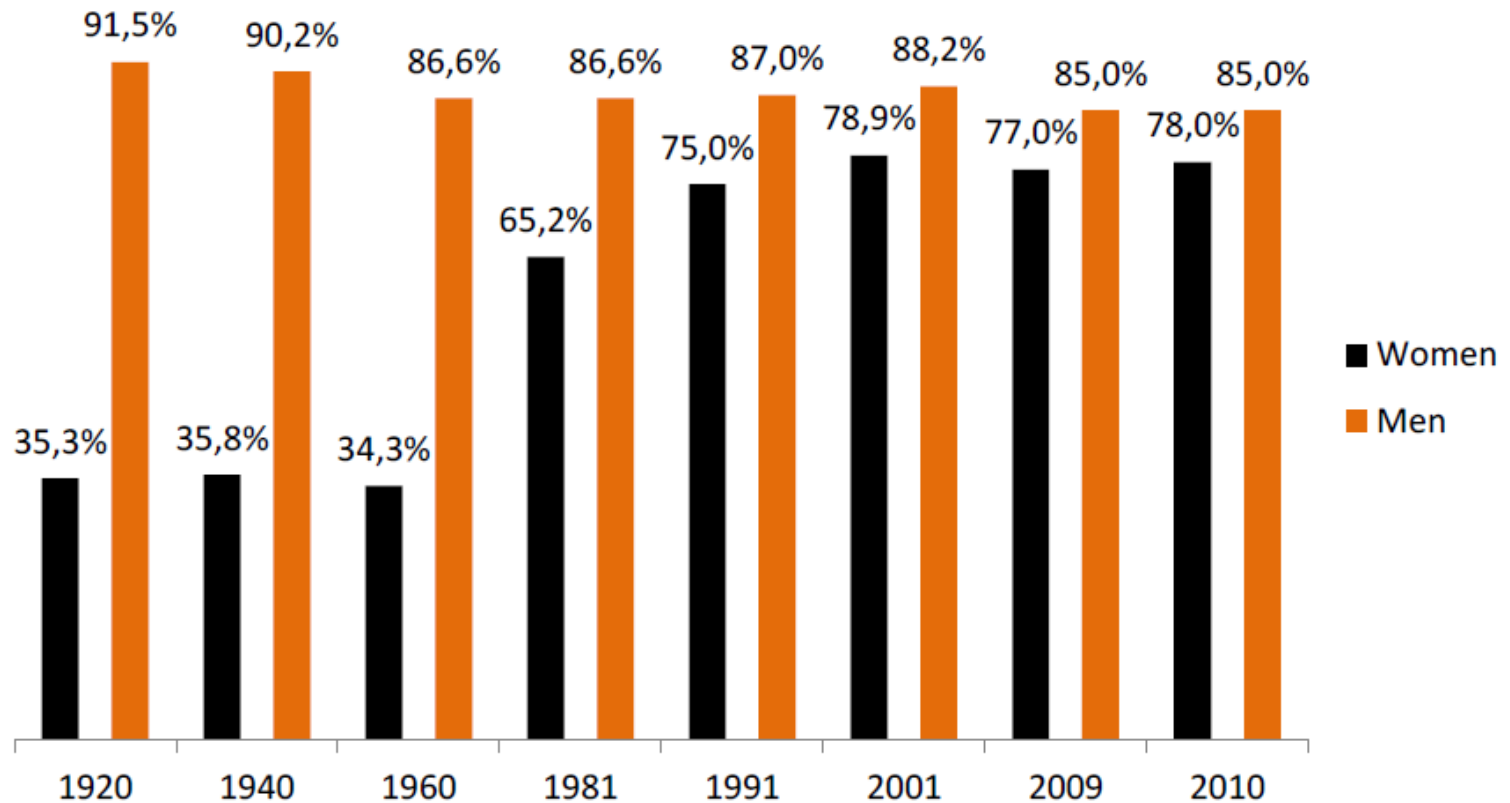
Female labor force participation has stagnated at around 50% in the World

Female labor force participation (as a % of female population age 15+), 1990-2011



Differences in labor force participation

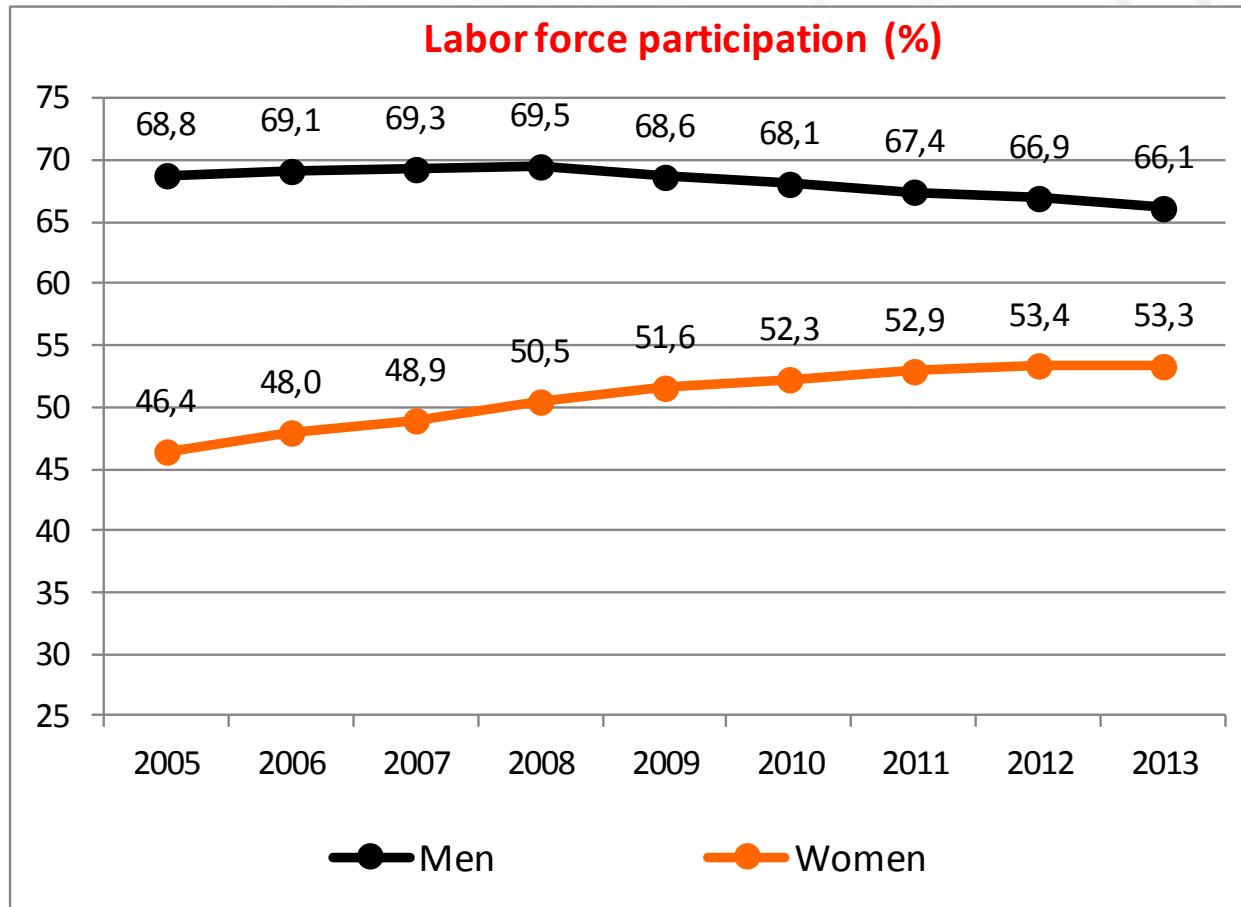
Evolution of **labor force participation rates** of women and men, **Iceland**, 1920-2010
(As a % of population 16-74 years)



Labour force participation rates 1920–2010

Fuente: Gender Equality in Iceland (2012), Jafnréttisstofa (The Center for Gender Equality Iceland)
http://eng.fiarmalaraduneyti.is/media/Gender_Equality_in_Iceland_012012.pdf

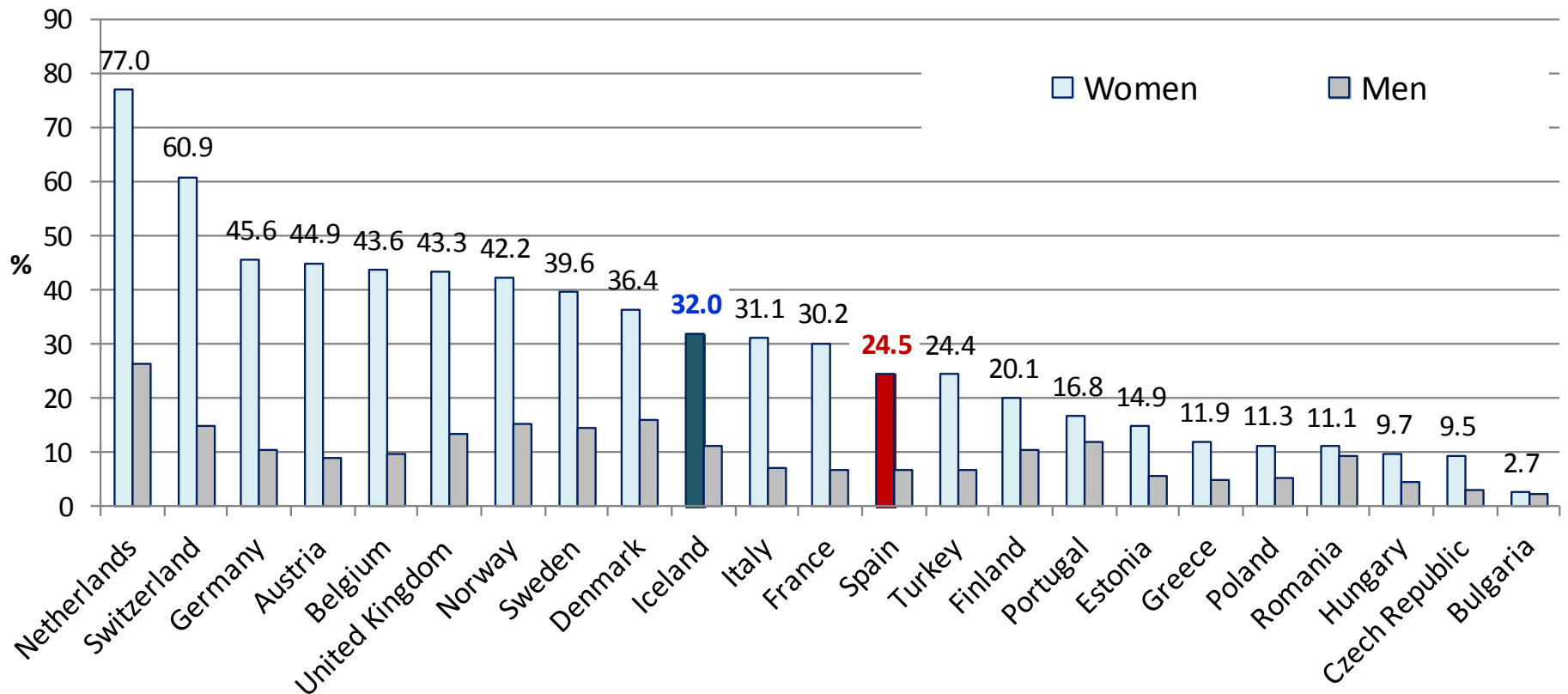
Evolution of **labor force participation rates** of women and men, **Spain**, 2005-2013



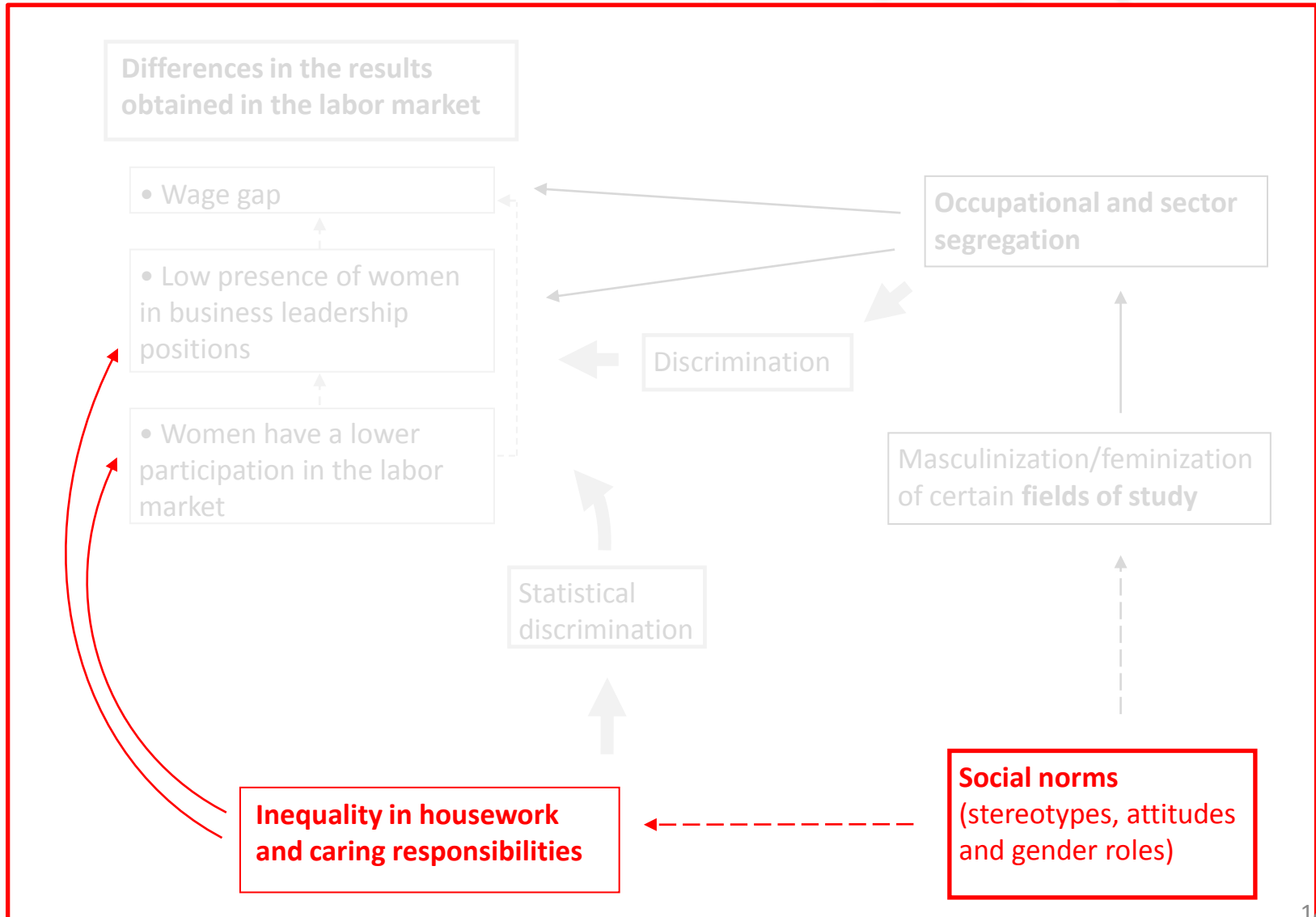
Differences in labor force participation

There is also an important difference between women and men in the use of part-time employment

% of female and male workers that work part-time

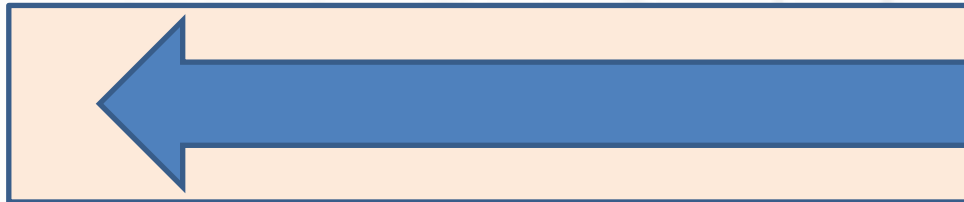


Inequality in housework and caring



“Mismatch hypothesis”

**Labor
Market**



Women

Men

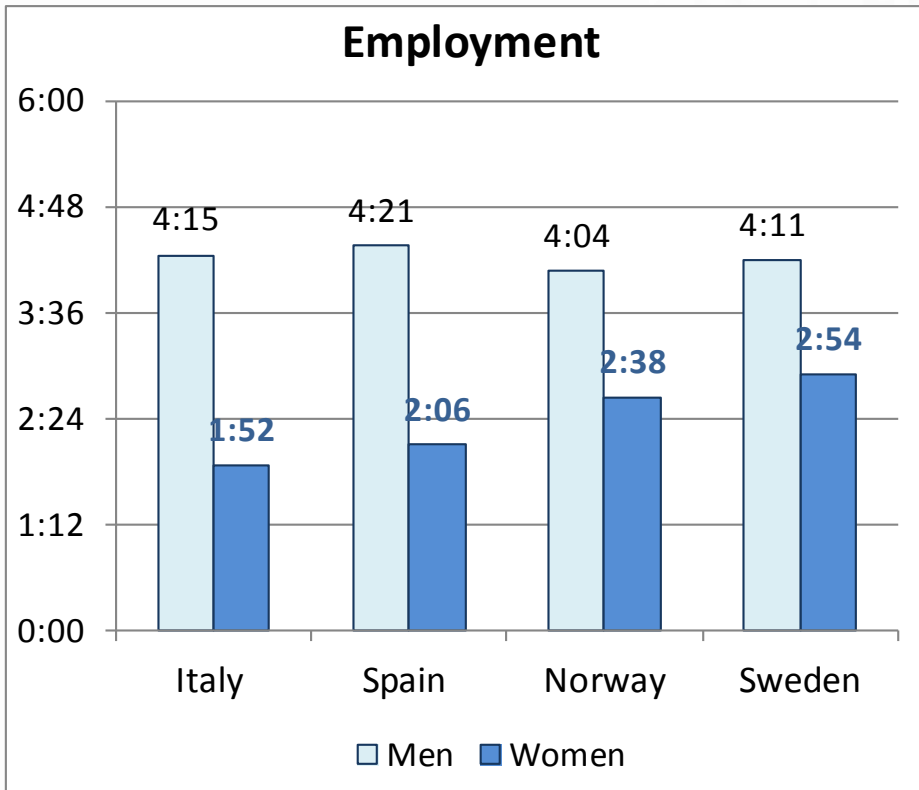


**Childcare &
housework**

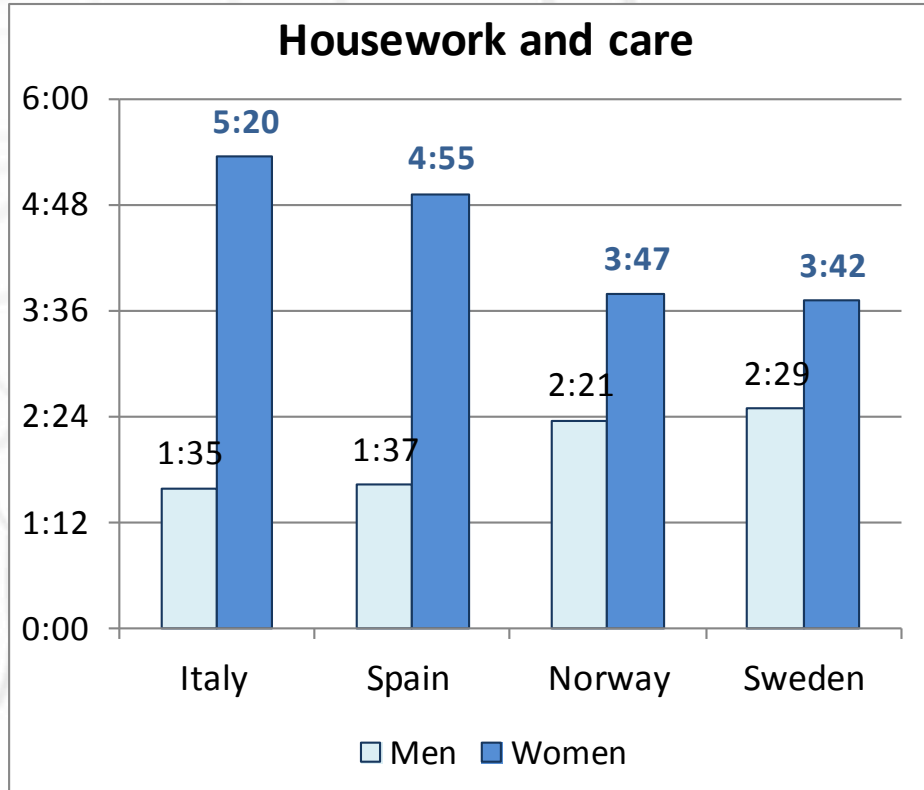
Although the process of incorporation of women into the labor market is quite advanced, on the other hand, men have hardly been incorporated into the tasks of caring for children or adults and domestic work.

Example: Two Latin and two Nordic countries (according to Time Use Surveys) ...

Employment



Housework and care

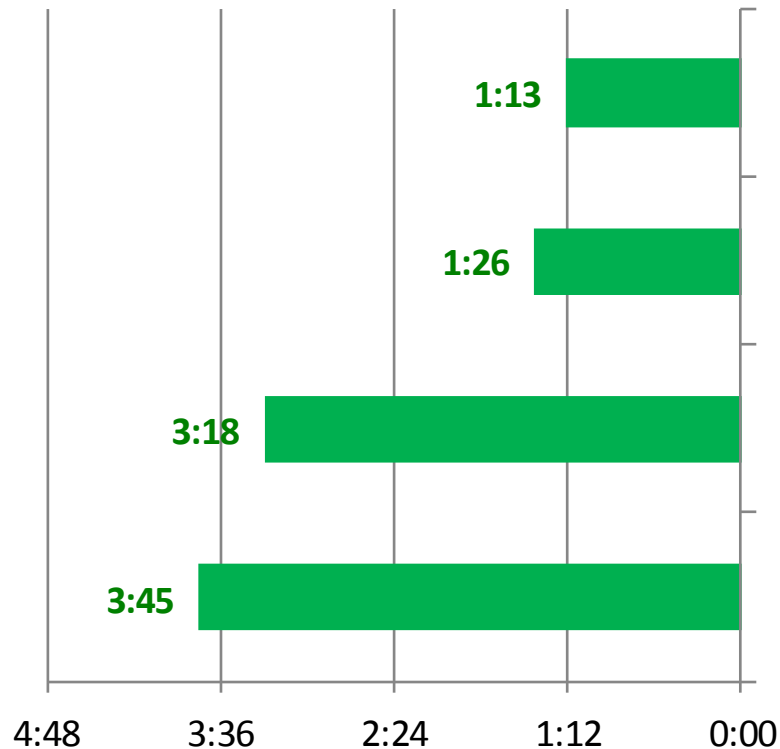


Notes: Data subset by **population 20-74 years**. Years 2002-2005

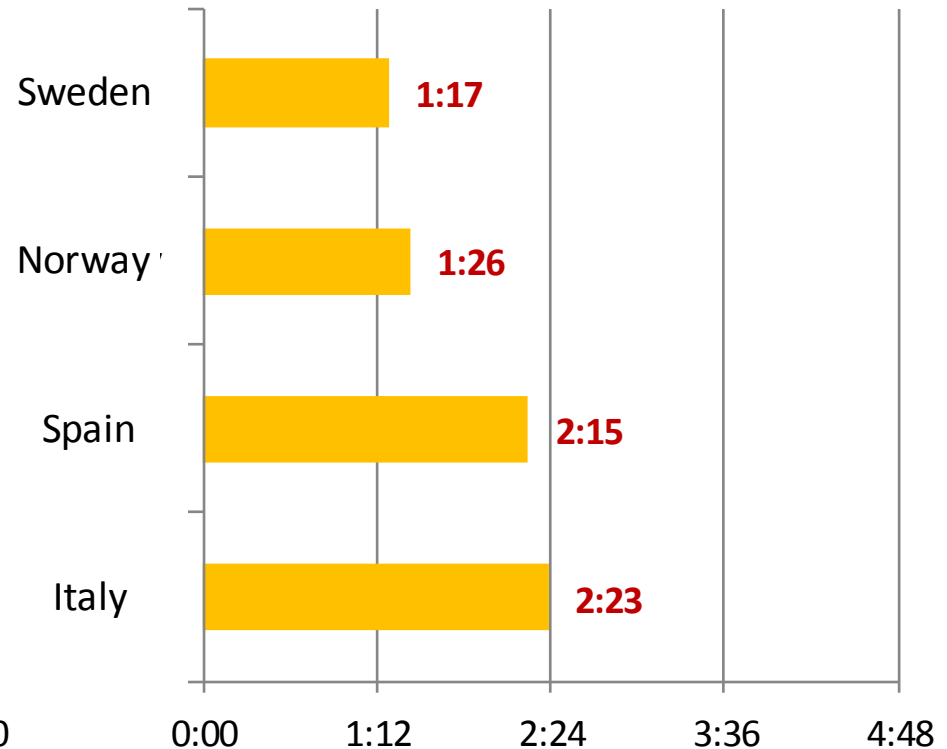
Source: Harmonised European Time Use Survey (HETUS) <https://www.h2.scb.se/tus/tus/>

Inequality in housework and caring

Differences W-M in family & care



Differences M-W in employment



Notes: Data subset by **population 20-74 years**. Years 2002-2005

Source: Harmonised European Time Use Survey (HETUS) <https://www.h2.scb.se/tus/tus/>

Inequality in housework and caring

The gaps are also reducing with time... (the case of **Spain**)

	Women	
	2002-03	2009-10
Employment	1:44	1:54
Housework & care	4:24	4:07

	Men	
	2002-03	2009-10
Employment	3:37	3:04
Housework & care	1:30	1:54



	2002-03	2009-10
Ratio Men-Women employment	208.7	161.4
Ratio Women-Men housework & care	293.3	216.7

Notes: Data subset by **population 10 + years**

Source: Spanish Time Use Survey 2009-2010,

<http://www.ine.es/jaxi/menu.do;jsessionid=81CCD597BE6DAFBFDA4808DBAD92FADF.jaxi03?type=pcaxis&path=%2Ft25%2Fe447&file=inebase&L=1>

All activities of everyday life: women are subject to more time pressure... (the case of **Spain**)

	Women	Men	Ratio Men-Women
0. Personal care	11:26	11:33	101.0
1. Employment	1:54	3:04	161.4
2. Study	0:39	0:39	100.0
3. Domestic work & care	4:07	1:54	46.2
4. Volunteer work and meetings	0:16	0:12	75.0
"TOTAL WORK" (1 + 3 + 4)	6:17	5:10	82.2
5. Social life and entertainment	1:01	1:04	104.9
6. Sports and outdoor activities	0:37	0:52	140.5
7. Hobbies and computers	0:24	0:44	183.3
8. Media	2:30	2:43	108.7
9. Travels and unspecified time use	1:06	1:14	112.1

Notes: Data subset by **population 10 + years**

Source: Spanish Time Use Survey 2009-2010,

<http://www.ine.es/jaxi/menu.do;jsessionid=81CCD597BE6DAFBFDA4808DBAD92FADF.jaxi03?type=pcaxis&path=%2Ft25%2Fe447&file=inebase&L=1>

Disaggregating the activities of domestic work & care gender: gender segregation appears (the case of Spain)

	Women	Men	Ratio M-W
3. Domestic work & care	4:07	1:54	46,2
3.0. Unspecified domestic & care activities	0:15	0:04	26,7
3.1. Food preparation	1:24	0:26	31,0
3.2. Home maintenance	0:49	0:17	34,7
3.3. Clothing & clothing care	0:23	0:01	4,3
3.4. Gardening & tending domestic animals	0:07	0:18	257,1
3.5. Construction & repairs	0:01	0:06	600,0
3.6. Shopping & services	0:31	0:20	64,5
3.7. Home paperworks & usual procedures	0:01	0:01	100,0
3.8. Childcare	0:32	0:18	56,3
3.9. Aid for adult household members	0:04	0:02	50,0

Notes: Data subset by **population 10 + years**

Source: Spanish Time Use Survey 2009-2010,

<http://www.ine.es/jaxi/menu.do;jsessionid=81CCD597BE6DAFBFDA4808DBAD92FADF.jaxi03?type=pcaxis&path=%2Ft25%2Fe447&file=inebase&L=1>

Now, to enter in detail of how childcare activities are distributed, we will refer to another survey that we conducted two years ago in the **region of Madrid**:

- “**Survey on the use of parental leave and its labor consequences**”. Instituto de la Mujer (Spanish Institute of Women). 2012

<http://www.inmujer.gob.es/areasTematicas/estudios/estudioslinea2013/docs/EvaluacPermisoPaternidad.pdf>

- Survey to fathers and mothers of children between 3 and 7 years old.
- We distributed 2500 questionnaires to parents in collaboration with randomly selected primary schools. A final sample was obtained of 1130 completed questionnaires (ie., a response rate of 50.2%)

We asked parents about who performed **19 childcare activities**. The response options were:

1	2	3	4	5
Mother mostly	Mother rather more	Same	Father rather more	Father mostly

If the average score is near to “**1**”, the participation of the fathers in this activity is very low; if the average score is near to **5**, the participation of the fathers in this activity is very high; “**3**” means equality.

What activities are performed relatively more by mothers than fathers?

(Sample of cohabiting and married fathers and mothers when the child was born)

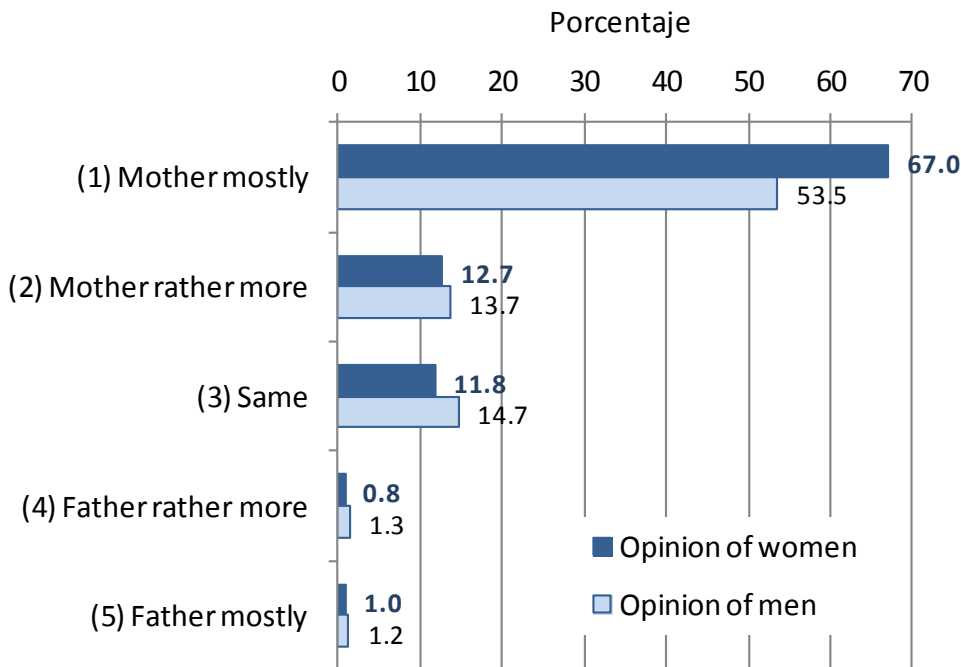
- Routine activities
- Activities requiring flexible working time
- Creative and rewarding activities

In the day-to-day, between zero and two years of the child, which of the members of the couple was in charge of the following activities?

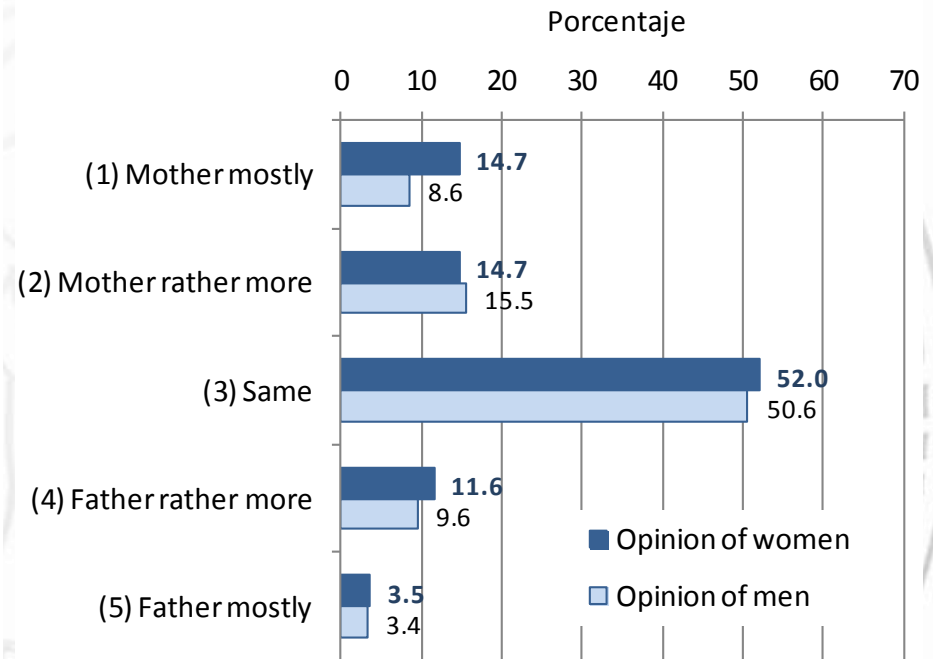
	Fathers' opinion		Mothers' opinion	
	N	Mean	N	Mean
h) Washing child's clothes	944	1.622	998	1.476
b) Cooking child's food	952	1.706	1,004	1.583
g) Buying child's clothes	980	1.761	1,033	1.661
i) Organizing housework and childcare	980	1.906	1,028	1.725
c) Feeding the child	950	1.943	996	1.796
q) Taking care of the child when he/she becomes ill at school/nursery	873	2.031	888	1.898
s) Take responsibility for looking for a babysitter, etc.	787	2.119	843	2.014
o) Taking child to the doctor	979	2.132	1,034	1.966
a) Buying child's food	983	2.170	1,033	2.032
n) Comforting child when tired or ill	980	2.255	1,036	2.109
d) Changing diapers	967	2.292	1,016	2.122
r) Dropping/ picking up child at school	901	2.329	923	2.228
p) Getting up at night	975	2.372	1,042	2.145
f) Putting child to bed	980	2.389	1,037	2.148
l) Reading books to child	971	2.529	1,029	2.401
e) Bathing child	981	2.555	1,033	2.393
k) Taking child to the park	969	2.663	1,003	2.527
m) Teaching child something new	967	2.729	1,027	2.633
j) Playing with child at home	979	2.816	1,036	2.785

The most and the least feminized childcare activities (Spain): Men tend to do more the most rewarding caring activities

a) The most feminized activity: **Washing child's clothes**



b) The less feminized activity: **Playing with child at home**



Are the **systems of parental leave important?**: Gender equality in these systems is essential to promote gender equality in the home

The **Icelandic 3+3+3 parental system** introduced in 2001 is the reference for many other reform processes that are to be performed in other countries.

The empirical evidence shows that **fathers respond to the introduction of well-paid and non-transferable paternity leaves.**

Comparison between Iceland and Spain

Paid leaves	Iceland	Spain
Maternity leave	3 months	4 months
Paternity leave	3 months	2 weeks
Other paid leaves	3 months to share	The mother can transfer up to 10 weeks of her maternity leave to the father
Mothers's and fathers' takeup of paid parental leaves	Iceland (2009)	Spain (2011)
Mothers	4,010	318,607
Fathers	3,874	269,715
Ratio Fathers/Mothers	96.6%	84.7%
Average number of days used by fathers	99	17
Average number of days used by mothers	178	117
Ratio Fathers/Mothers	55.6%	14.5%

Icelandic data: Arnalds *et al.* (2013): “**Equal rights to paid parental leave and caring fathers- the case of Iceland**”, *Icelandic Review of Politics and Administration* , 9(2), 323-344 <http://dx.doi.org/10.13177/irpa.a.2013.9.2.4>

Spanish data: Seguridad Social, Estadísticas y Estudios. http://www.seg-social.es/Internet_1/Estadística/Est/Otras_Prestaciones_de_la_Seguridad_Social/Maternidad/index.htm

Escot *et al.* (2013): “Una evaluación de la introducción del permiso de paternidad de 13 días...”, Instituto de la Mujer, <http://www.inmujer.gob.es/areasTematicas/estudios/estudioslinea2013/docs/EvaluacPermisoPaternidad.pdf>

Does takeup of fathers' leave influence the division of care among parents?

There is empirical evidence that supports the fact that fathers who took childbirth leave become more involved in their children's care.

For example, for the case of **Iceland**, we can highlight the following research:

Ásdís A. Arnalds; Guðný Björk Eydal; y Ingólfur V. Gíslason (2013):

“Equal rights to paid parental leave and caring fathers- the case of Iceland”,

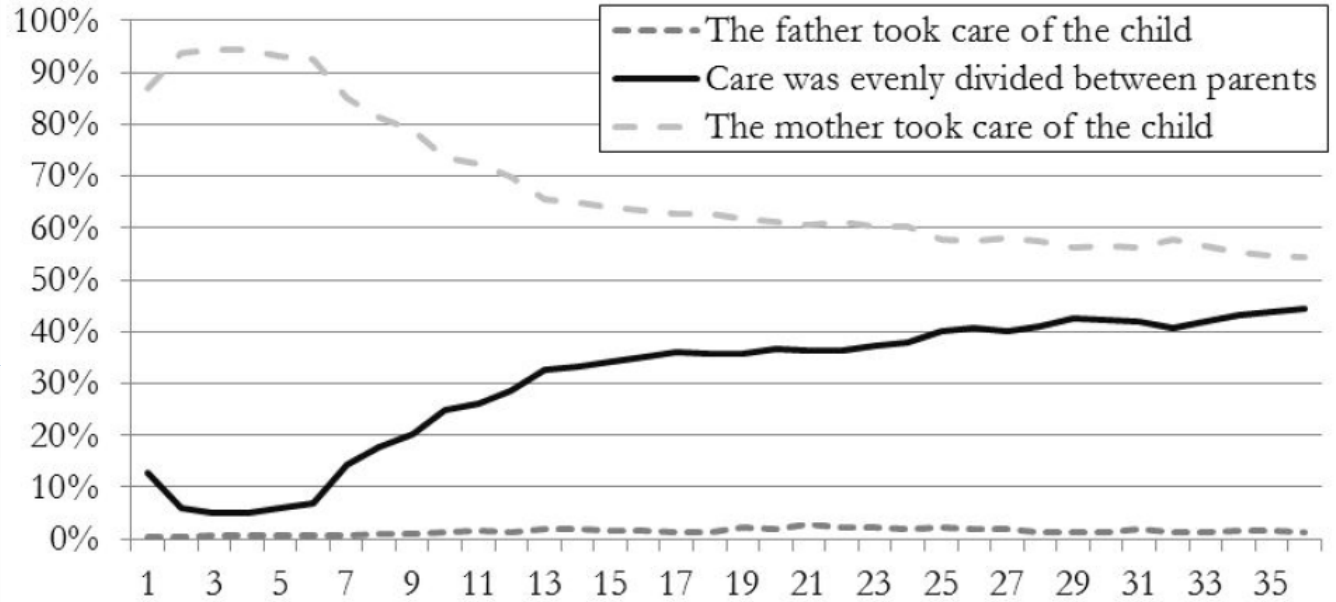
Icelandic Review of Politics and Administration, 9(2), 323-344

<http://dx.doi.org/10.13177/irpa.a.2013.9.2.4>

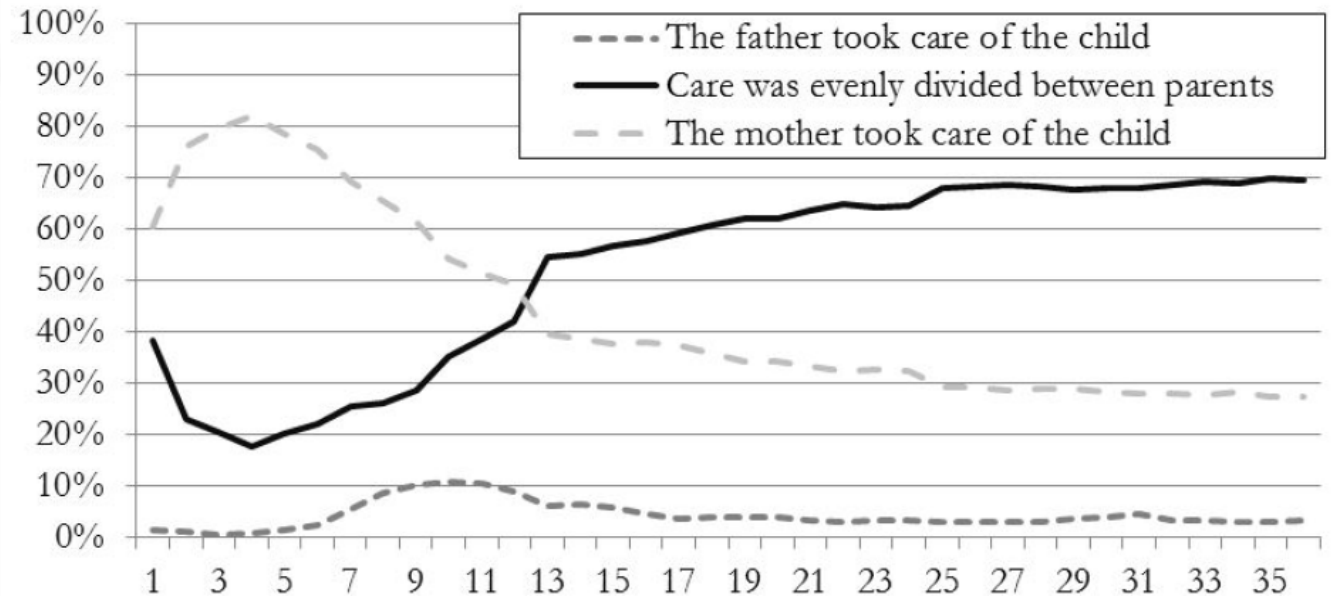
Parental leaves

How did cohabiting and married parents of firstborns divide care during the day from birth till the age of three? (Arnalds *et al.* 2013)

Firstborns in 1997
(before the reform)

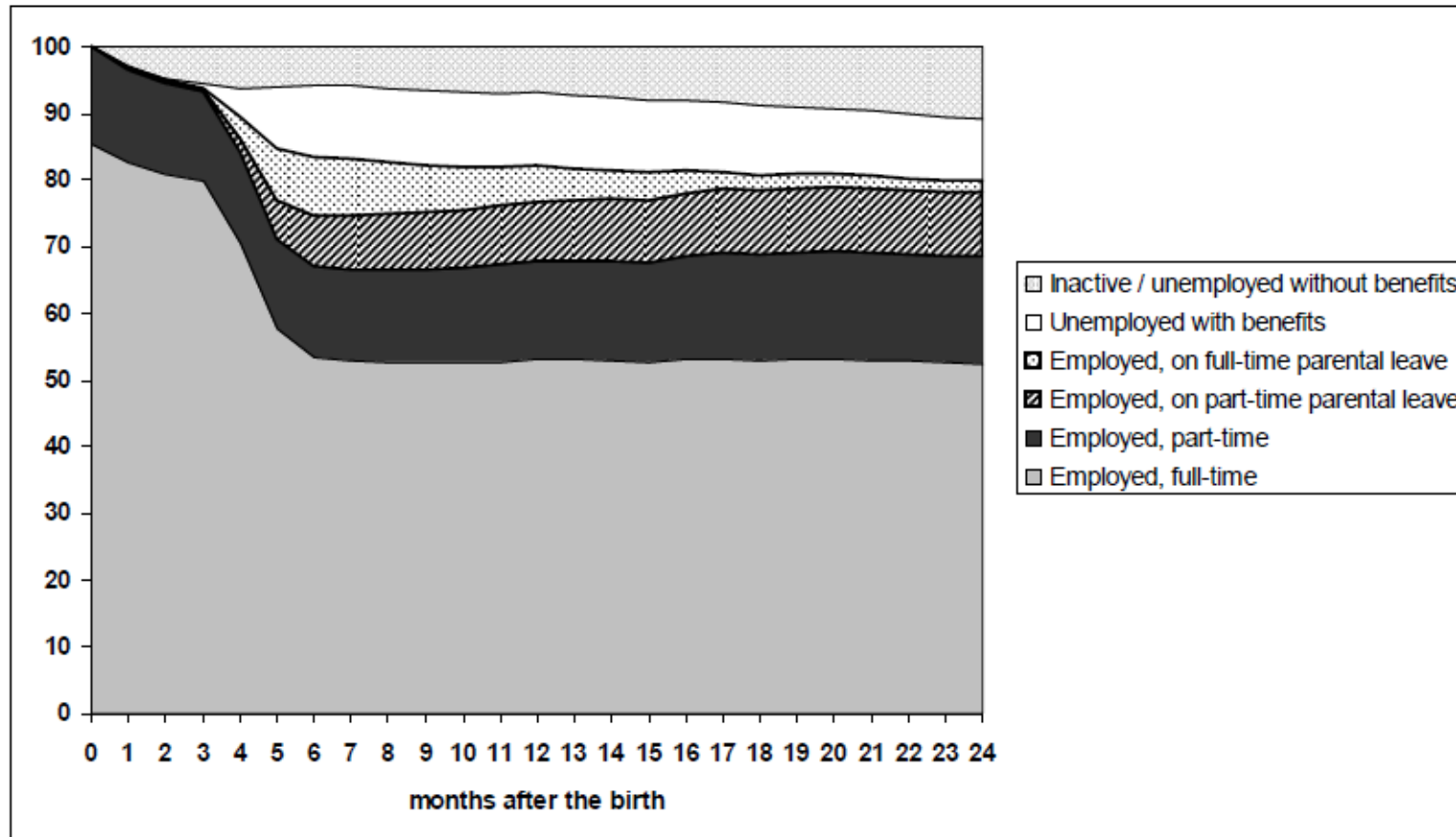


Firstborns in 2009
(After the reform)



How is the return to work after the paid leave?

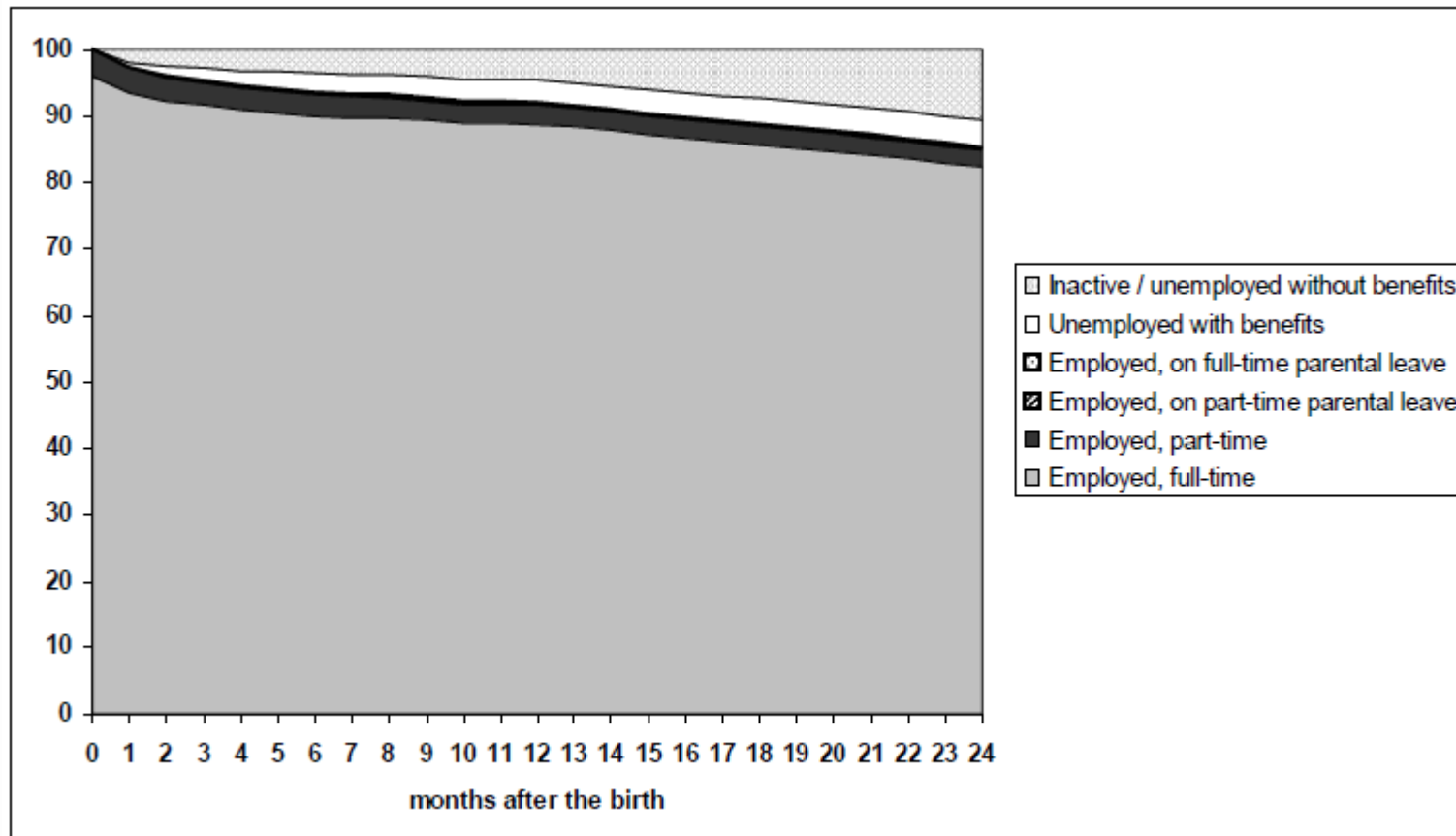
Women's evolving relationship with the labor market for those employed at the time of the birth of their first child. **Spain**: A cohort of children born in 2005 and 2006.



Source: Irene Lapuerta (2014): "First-time Mothers' Employment Transitions after Childbirth in Spain: Is Part-time Parental Leave an Alternative?", *Sex Roles*, (forthcoming)

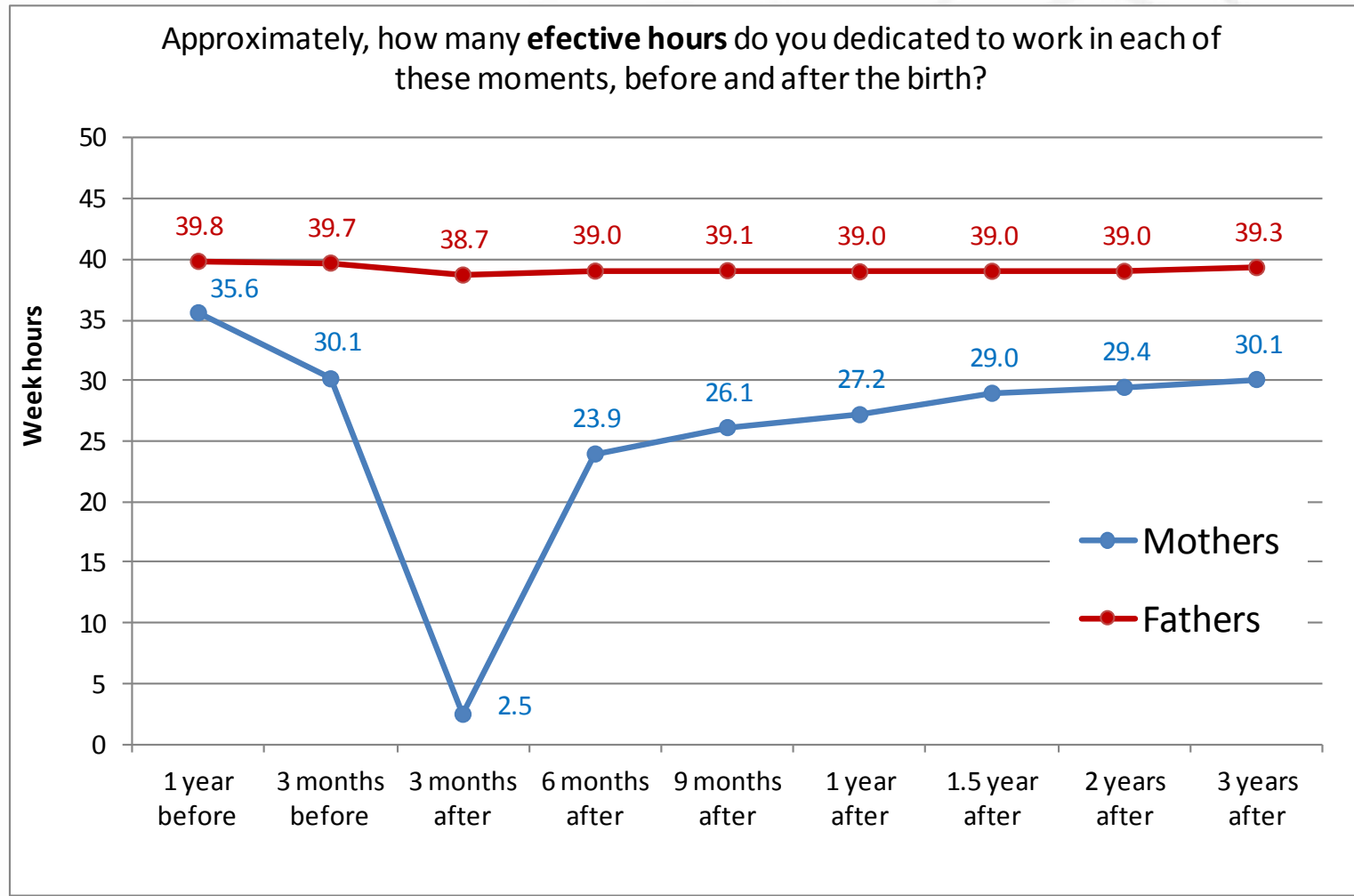
Return to work after paid leave

Men's evolving relationship with the labor market for those employed at the time of the birth of their first child. **Spain:** A cohort of children born in 2005 and 2006.

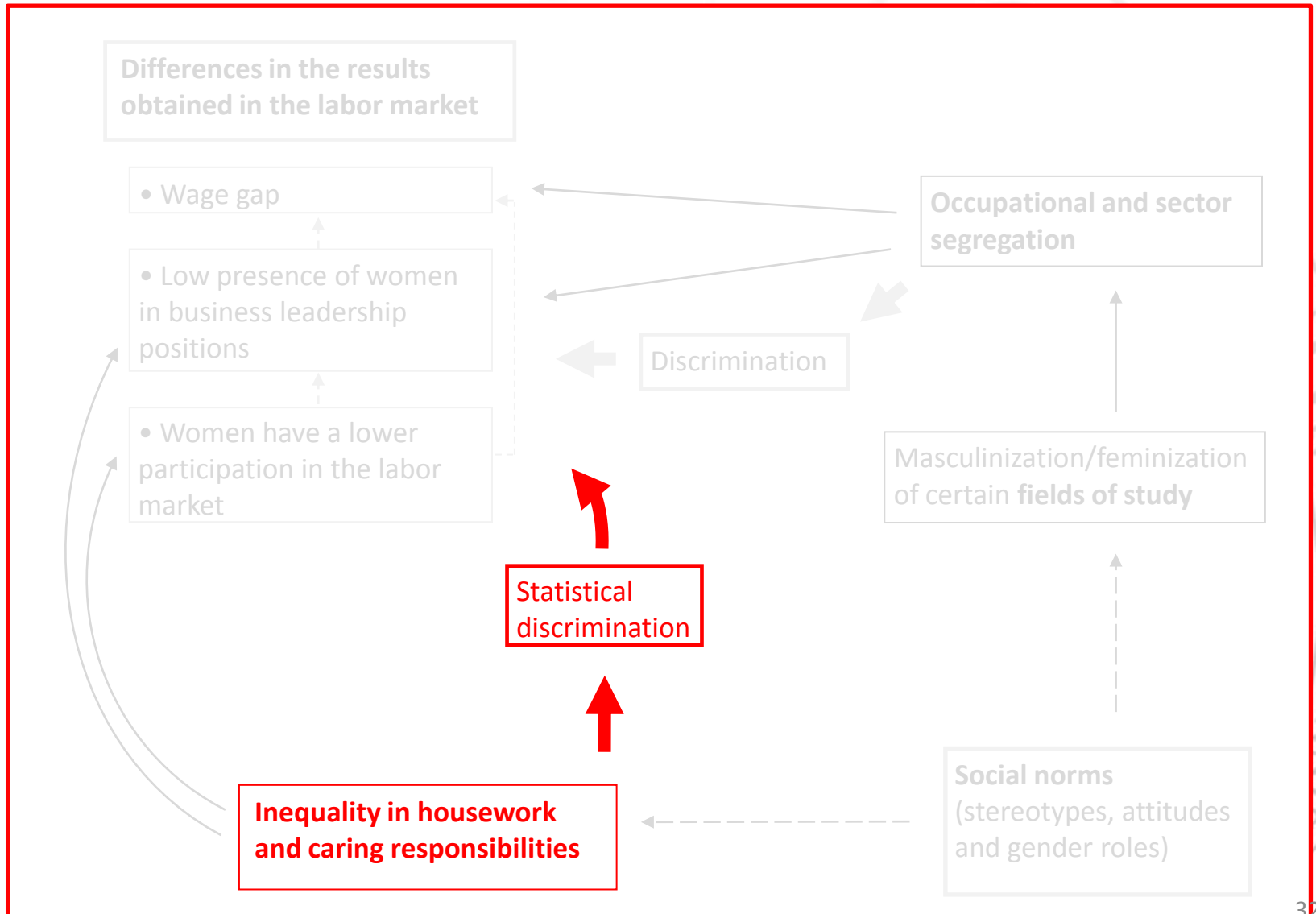


Source: Irene Lapuerta (2014): "First-time Mothers' Employment Transitions after Childbirth in Spain: Is Part-time Parental Leave an Alternative?", *Sex Roles*, (forthcoming)

Persistent decline in female working week after birth (Spain)



Discrimination



The preceding explanations of gender inequality in the labor market are “**supply side explanations**” (division of work in the family, etc.)

But there are also “**demand side**” explanations of it: **discrimination** in the labor market (in hiring, promotion, remuneration ...)

Statistical discrimination

Statistical discrimination is a theory of inequality between demographic groups based on stereotypes that do not arise from prejudice or racial and gender bias. When rational, information-seeking decision makers use aggregate group characteristics, such as group averages, to evaluate individual personal characteristics, individuals belonging to different groups may be treated differently even if they share identical observable characteristics in every other aspect.

Example of hiring process...

One way to obtain empirical evidence of discrimination in the labor market is through experimental methods:

- Controlled (“laboratory”) experiments
- Field experiments

Moss-Racusin, C. A.; Dovidio, J. F.; Brescoll, V. L.; Grahama, M. J.; & Handelsman, J. (2012)
“Science faculty’s subtle gender biases favor male students”,
PNAS, <http://www.pnas.org/content/early/2012/09/14/1211286109>

For the case of US, this research analyses experimentally whether science faculty exhibit a bias against female students that could contribute to the gender disparity in academic science in hiring processes.

Science faculty from research-intensive universities rated the application materials of a student—who was randomly assigned either a male or female name—for a laboratory manager position. Faculty participants rated the male applicant as significantly better (according to several indicators) than the (identical) female applicant.

They did a **controlled experiment** with academic staff from research-intensive universities in US

Table 1. Means for student competence, hireability, mentoring and salary conferral by student gender condition and faculty gender

Variable	Male target student				Female target student				
	Male faculty		Female faculty		Male faculty		Female faculty		<i>d</i>
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
Competence	4.01 _a	(0.92)	4.1 _a	(1.19)	3.33 _b	(1.07)	3.32 _b	(1.10)	0.71
Hireability	3.74 _a	(1.24)	3.92 _a	(1.27)	2.96 _b	(1.13)	2.84 _b	(0.84)	0.75
Mentoring	4.74 _a	(1.11)	4.73 _a	(1.31)	4.00 _b	(1.21)	3.91 _b	(0.91)	0.67
Salary	30,520.83 _a	(5,764.86)	29,333.33 _a	(4,952.15)	27,111.11 _b	(6,948.58)	25,000.00 _b	(7,965.56)	0.60

Scales for competence, hireability, and mentoring range from 1 to 7, with higher numbers reflecting a greater extent of each variable. The scale for salary conferral ranges from \$15,000 to \$50,000. Means with different subscripts within each row differ significantly ($P < 0.05$). Effect sizes (Cohen's d) represent target student gender differences (no faculty gender differences were significant, all $P > 0.14$). Positive effect sizes favor male students. Conventional small, medium, and large effect sizes for d are 0.20, 0.50, and 0.80, respectively (51). $n_{\text{male student condition}} = 63$, $n_{\text{female student condition}} = 64$. *** $P < 0.001$.

Another example of experimental research:

Correll, S. J; Benard, S.; & Paik, I. (2007):

“Getting a Job: Is There a Motherhood Penalty?”,

American Journal of Sociology, 112(5), pp. 1297-1339

<http://gender.stanford.edu/sites/default/files/motherhoodpenalty.pdf>

For the case of US, this research analyses how in hiring processes the cv of the mothers are devalued compared with the cv of the non-mothers .

Discrimination

They first do a **controlled experiment** with degree students

MEANS OR PROPORTIONS OF STATUS, STANDARDS, AND EVALUATION VARIABLES BY GENDER AND PARENTAL STATUS OF APPLICANT

	FEMALE APPLICANTS		MALE APPLICANTS	
	Mothers	Nonmothers	Fathers	Nonfathers
Competence	5.19** (.73)	5.75 (.58)	5.51 (.68)	5.44 (.66)
Commitment	67.0** (19.1)	79.2 (15.2)	78.5** (16.3)	74.2 (18.6)
Days allowed late	3.16** (1.98)	3.73 (2.01)	3.69** (2.55)	3.16 (1.85)
% score required on exam	72.4** (27.5)	67.9 (27.7)	67.3 (32.7)	67.1 (33.0)
Salary recommended (\$) ...	137,000** (21,000)	148,000 (25,000)	150,000** (23,000)	144,000 (20,700)
Proportion recommend for management691 ⁺⁺	.862	.936 ⁺	.851
Likelihood of promotion	2.74** (.65)	3.42 (.54)	3.30* (.62)	3.11 (.70)
Proportion recommend for hire468 ⁺⁺	.840	.734 ⁺	.617

NOTE.—SDs in parentheses. 94 participants rated female applicants, and 94 rated male applicants. For this table, the data for male and female subjects are pooled, as are the data by race of applicant. All values reported to three significant digits. See text for variable descriptions.

⁺ $Z < .10$, test for difference in proportions between parents and nonparents.

⁺⁺ $Z < .05$.

* $P < .10$, test for difference in means between parents and nonparents.

** $P < .05$.

Then, they first do a **field experiment** with real employers

PROPORTIONS OF APPLICANTS RECEIVING CALLBACKS BY GENDER AND PARENTAL STATUS

	Callbacks/Total Jobs	Proportion Called Back
Mothers	10/320	.0313
Childless women	21/320	.0656 ⁺⁺
Fathers	16/318	.0503
Childless men	9/318	.0283

NOTE.—Mothers and childless women applied to the same 320 jobs; fathers and childless men applied to the same 318 jobs. See text for variable descriptions.

⁺⁺ $Z < .05$, test for difference in proportions between parents and nonparents.

Occupational segregation and gender disparities in subject choices

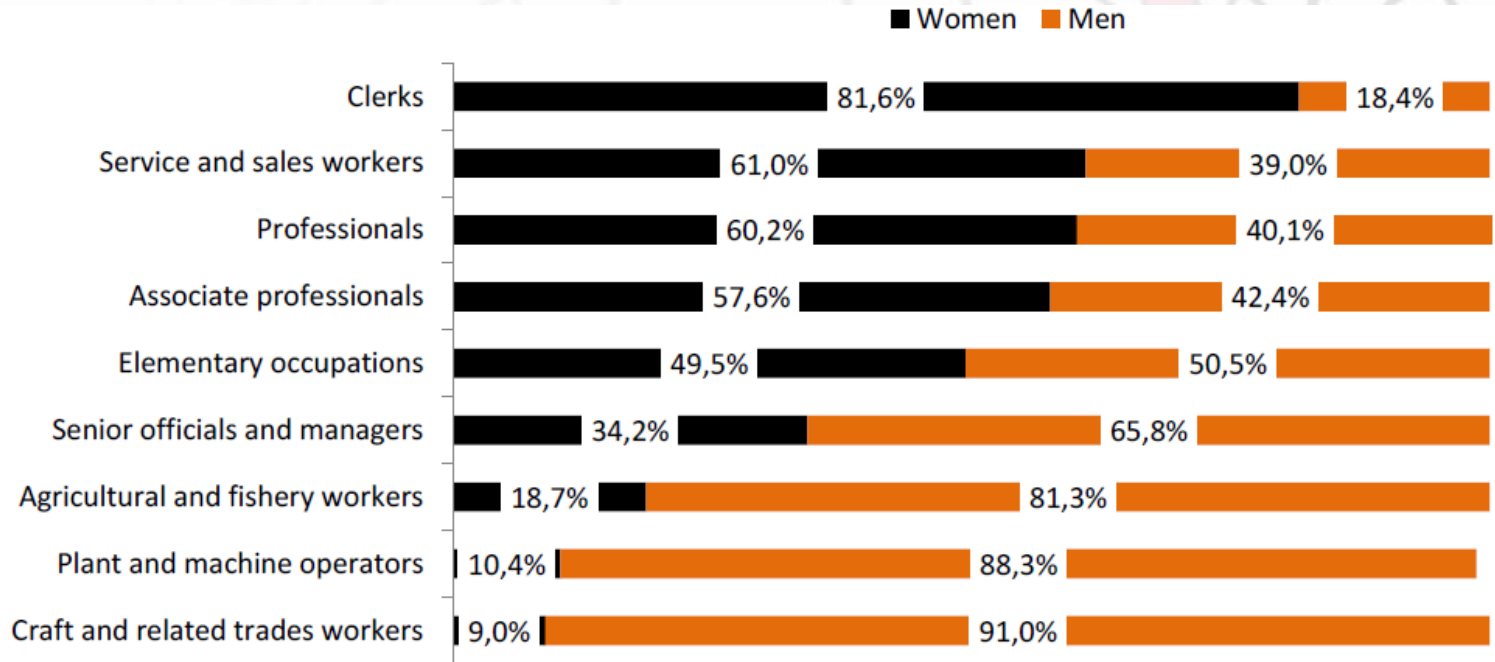
Occupational gender segregation (the existence of many masculinized and feminized occupations) is one of the most persistent causes of the gender pay gap.

Occupational segregation can occur

- either horizontally (across occupations)
- or vertically (within the hierarchy of occupations)

The causes of occupational gender segregation are closely linked to traditional gender norms, gender roles, and “Gender essentialism”.

Gender division of occupations in Iceland, in 2010

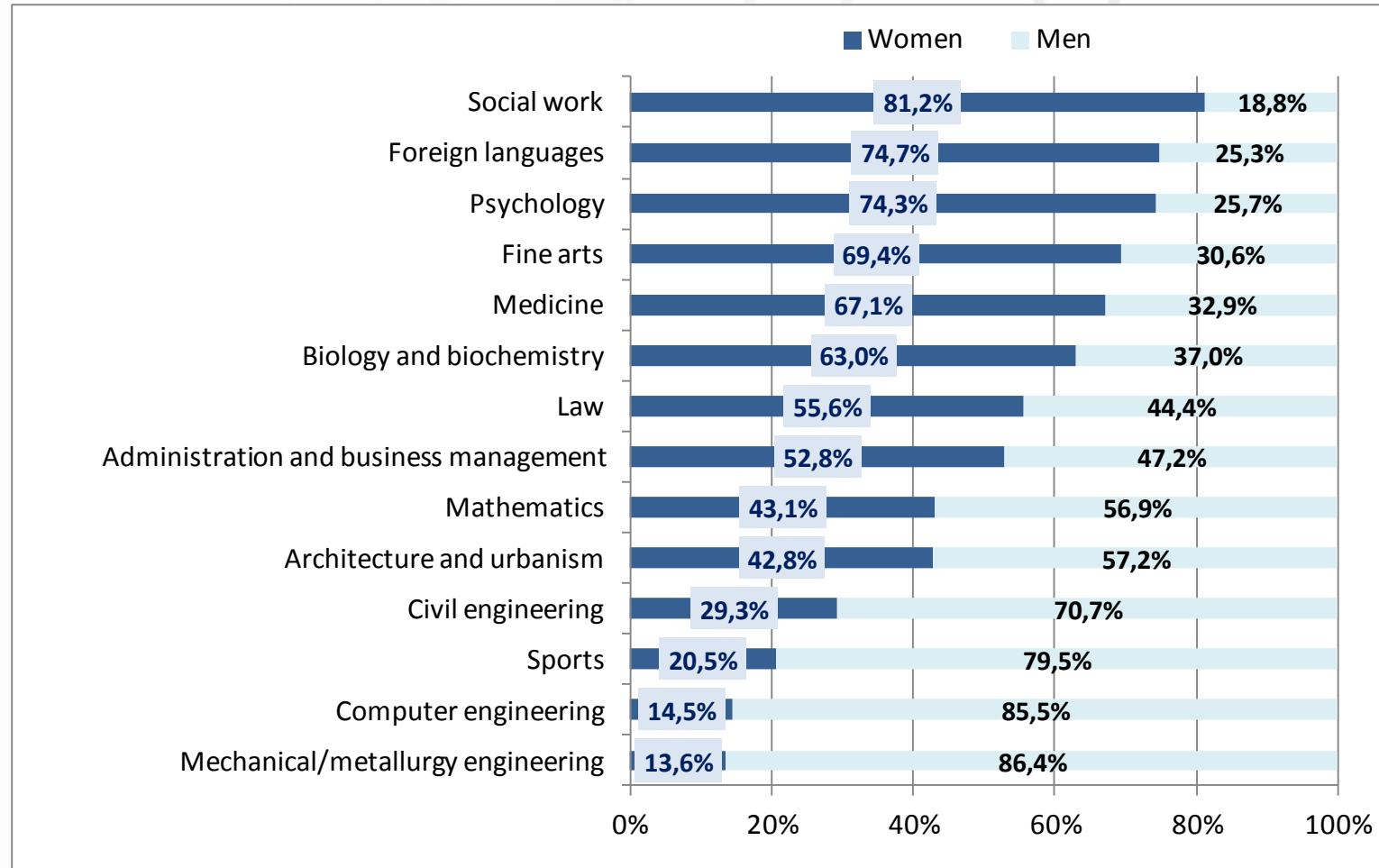


Occupational segregation and gender disparities in subject choices

Will high levels of occupational segregation persist in the future?

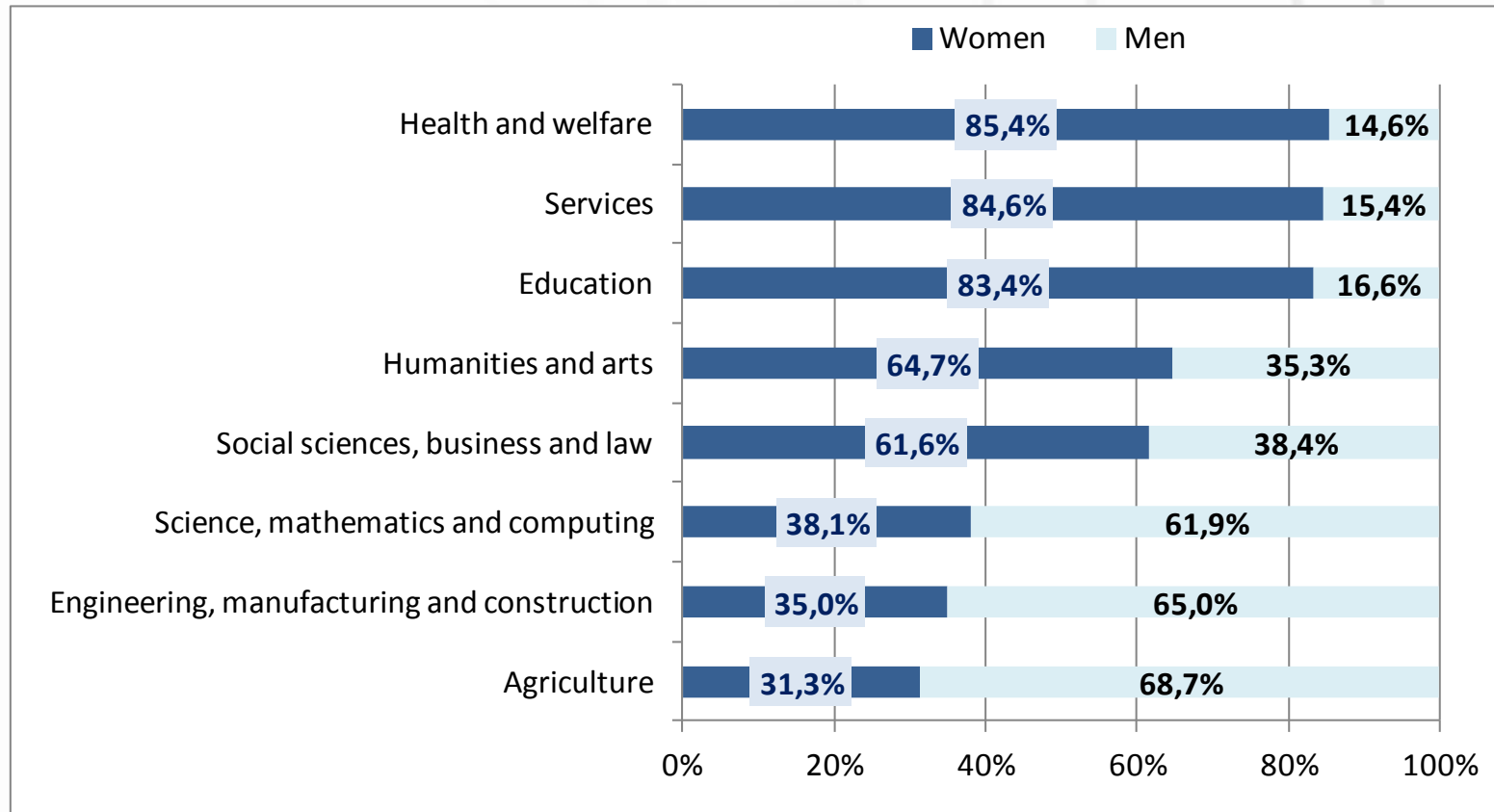
One way to find it out is to see what are currently studying the young people

Students enrolled in undergraduate studies in **Spain** (year 2011-12)



Gender differences in subject choices persist

Graduations at tertiary level in **Iceland** (year 2008/2009)



Source: Gender Equality in Iceland (2012), Jafnréttisstofa (The Center for Gender Equality Iceland)
http://eng.fiarmalaraduneyti.is/media/Gender_Equality_in_Iceland_012012.pdf

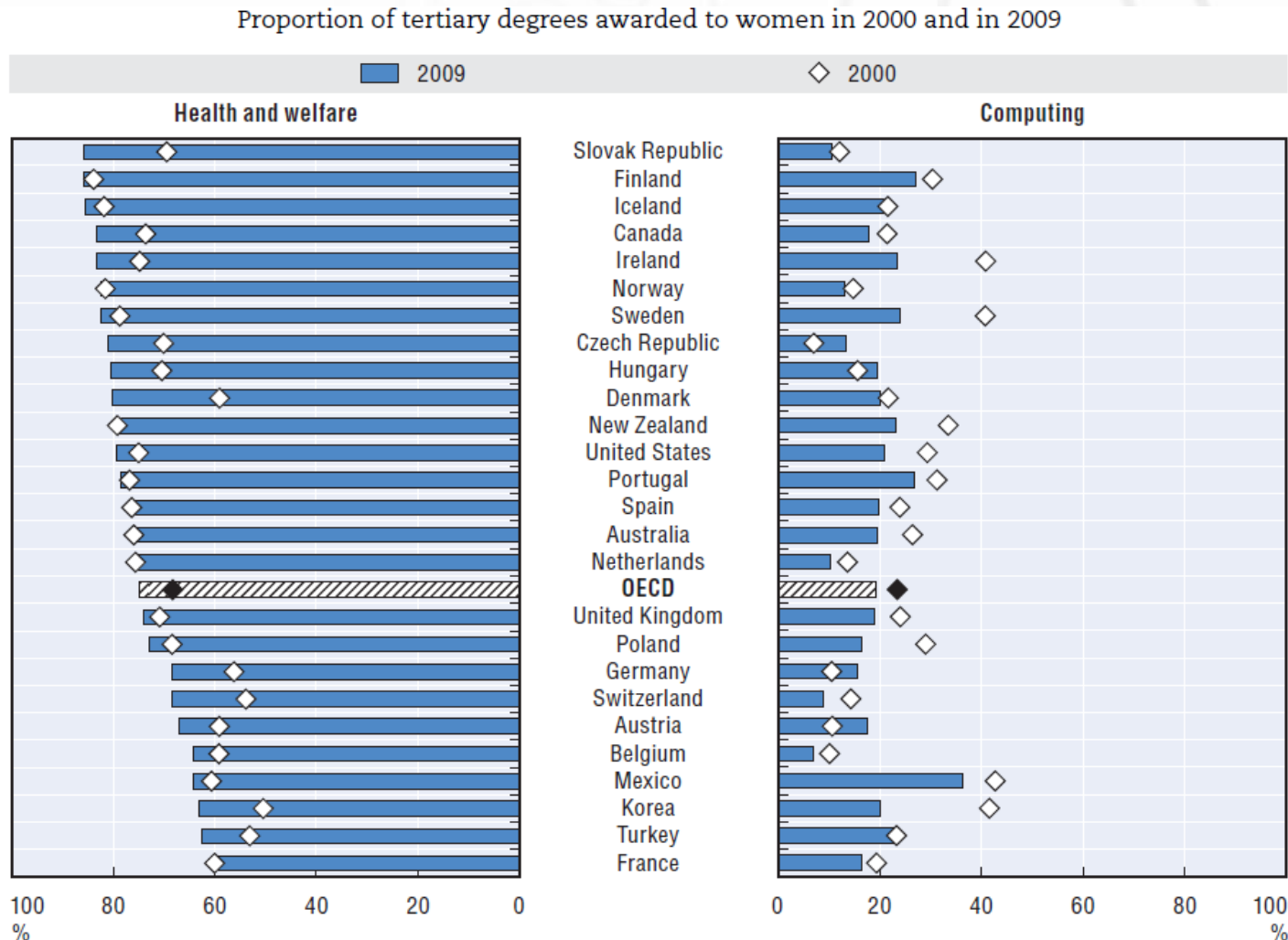
Gender differences in subject choices persist internationally

Proportion of degrees awarded to women (at the tertiary level), 2009				
	Computing	Engineering, manufacturing & construction	Education	Health & welfare
Slovak Rep.	10,6	31,1	78,2	85,9
Finland	27,0	22,8	83,6	85,6
Iceland	21,1	35,3	84,5	85,4
Estonia	28,8	37,6	92,1	84,0
Canada	17,8	23,5	76,8	83,2
Ireland	23,4	21,2	74,2	83,1
Norway	13,1	24,5	74,5	82,4
Sweden	24,1	28,4	79,3	82,3
Czech Rep.	13,3	25,6	78,5	81,1
Hungary	19,5	24,2	78,7	80,4
Denmark	20,2	31,8	72,5	80,1
New Zealand	23,0	29,8	81,2	79,5
US	20,8	21,4	77,7	79,3
Portugal	26,9	29,4	85,3	78,5
Spain	19,7	33,9	78,7	75,9
Australia	19,6	24,8	74,0	75,6
Netherlands	10,2	18,7	81,1	75,2
Brazil	17,9	28,8	79,7	75,2
OECD	18,9	26,3	76,8	74,8
UK	19,0	22,5	76,3	74,1
Slovenia	10,4	31,0	84,2	72,9
Poland	16,3	33,6	77,8	72,8
Chile	22,1	27,5	74,3	70,4
Germany	15,6	22,3	72,5	68,4
Switzerland	8,9	19,1	74,3	68,3
Austria	17,5	25,5	80,3	67,1
Belgium	6,8	27,2	75,8	64,1
Mexico	36,4	28,3	72,0	64,1
Korea	20,1	22,5	71,6	63,0
Turkey	23,3	26,7	54,6	62,6
France	16,5	28,8	74,6	59,3
Japan	8,0	10,8	59,3	56,6

Source: OCDE (2013): *Closing the Gender Gap. Act Now*, <http://www.oecd.org/inclusive-growth/Closing%20the%20Gender%20Gaps.pdf>

Occupational segregation and gender disparities in subject choices

The proportion of female graduates in computer science degree courses in most OECD countries fell in the first decade of the 21st century due to steeper rise in percentages of male students



Are there fewer women studying science majors because girls have more difficulties than boys in mathematics?

- The gender gap in PISA scores in mathematics is quite low
- There are differences between groups of countries...
- The gender gap in mathematics mirrors the (culturally induced) gender gap in students' drive, motivation and self-beliefs.

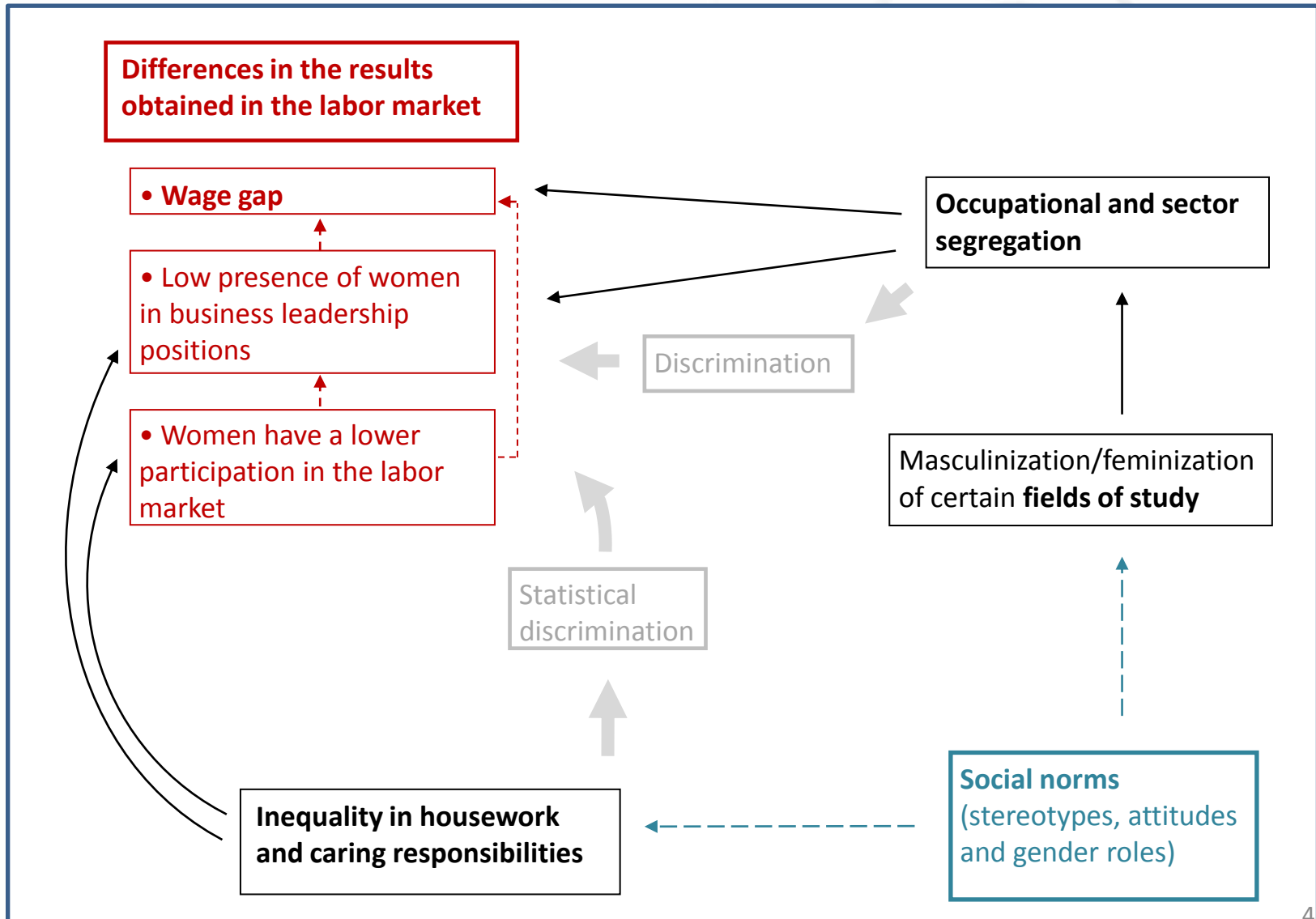
PISA scores (2012)	Mathematics		
	Boys	Girls	Difference (B - G)
	Mean score	Mean score	Score difference
Finland	517	520	-3
Sweden	477	480	-3
Norway	490	488	2
Iceland	490	496	-6
OECD	499	489	11
Spain	492	476	16
Italy	494	476	18
Chile	436	411	25
Colombia	390	364	25

So why are there fewer women studying science majors?

- Because of the influence of social norms, gender roles, etc.
- Human capital explanations...



Some causes of gender inequality in the labor market (general scheme)



What **policies** can facilitate progress in gender equality in the labor market?

- **Public policies should not have any gender bias** (some policies that were traditionally thought to “protect women” can harm the career progression of women in labor market).
 - Eliminating the secondary earner bias in income taxes (filing income taxes jointly may imply a high marginal income tax for many secondary earners, that are often married women)
 - Parental leave should be equal for men and women and non-transferable (and fully-paid)See: PLENT <http://www.equalandnontransferable.org/en/>
- **Good family/work reconciliation policies** (but **without “female bias”**).
 - For example, in Spain it is necessary to advance in public supply of kindergarten (pre-school) services
 - It is necessary to promote “family friendly companies” but without “female bias” (companies must not identify the need to reconcile only with the female staff).
- **Education policy** that promotes gender equality (changing gender stereotypes and attitudes at a young age). In particular a education policy aiming to reduce gender segregation in fields of studies.
- Policies that promote the gender equality inside the household; and the empowerment of women in certain areas (for example, fostering women entrepreneurship; or fighting the glass ceiling problem)
- Strict **anti-discrimination laws**; policies of quotas...



**Thanks for your
attention!**