Gender pay gap: Reasons and policies to reduce it

FIW-Workshop Women in International Economics

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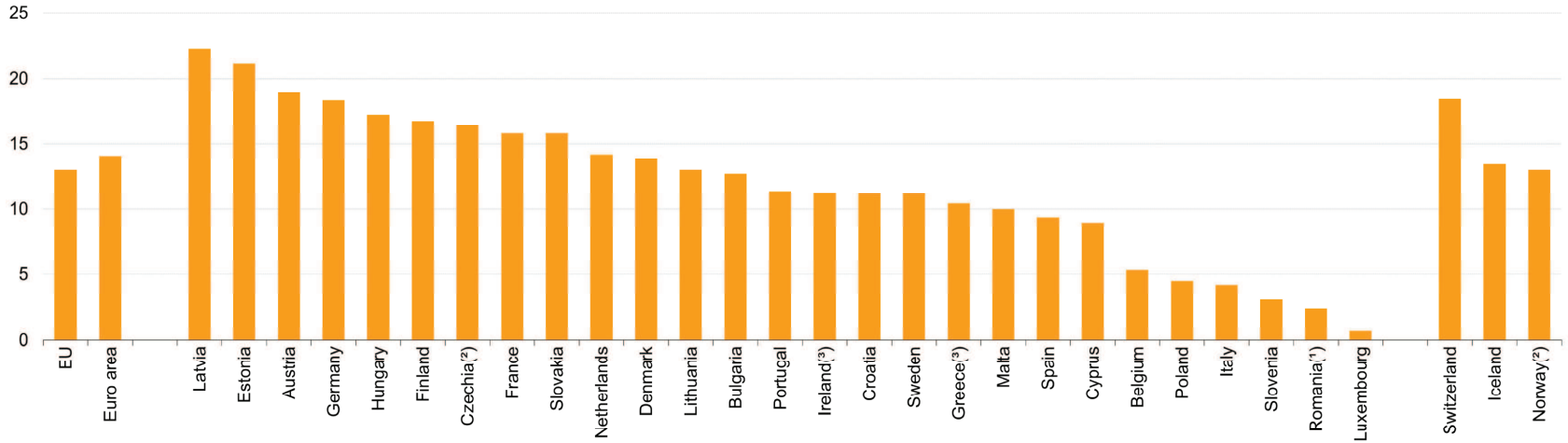
Why do women earn less than men, what reduces the gap?

- Income and wage differences in Austria (Statistik Austria 2022)
  - in 2021, women earn 35.5% less than men, fulltime employed women 12.5% less
  - in 2020, women's wages in the private sector were 18.9% lower than men's wages (including wage of part time workers)
- EU-Silc data for Austria: decomposition of the wage gap into (Böheim et al 2022)
  - differences in wage-determining characteristics between men and women and
  - an unexplained part (discrimination and unobserved characteristics)
- discuss what are appropriate policy measures, and when do they work?
  - blind application process, adjustment of work processes
  - childcare facilities, parental leave policies, effect of quotas, transparency

EU gender pay gap 2020

The unadjusted gender pay gap, 2020
(difference between average gross hourly earnings of male and female employees as % of male gross earnings)



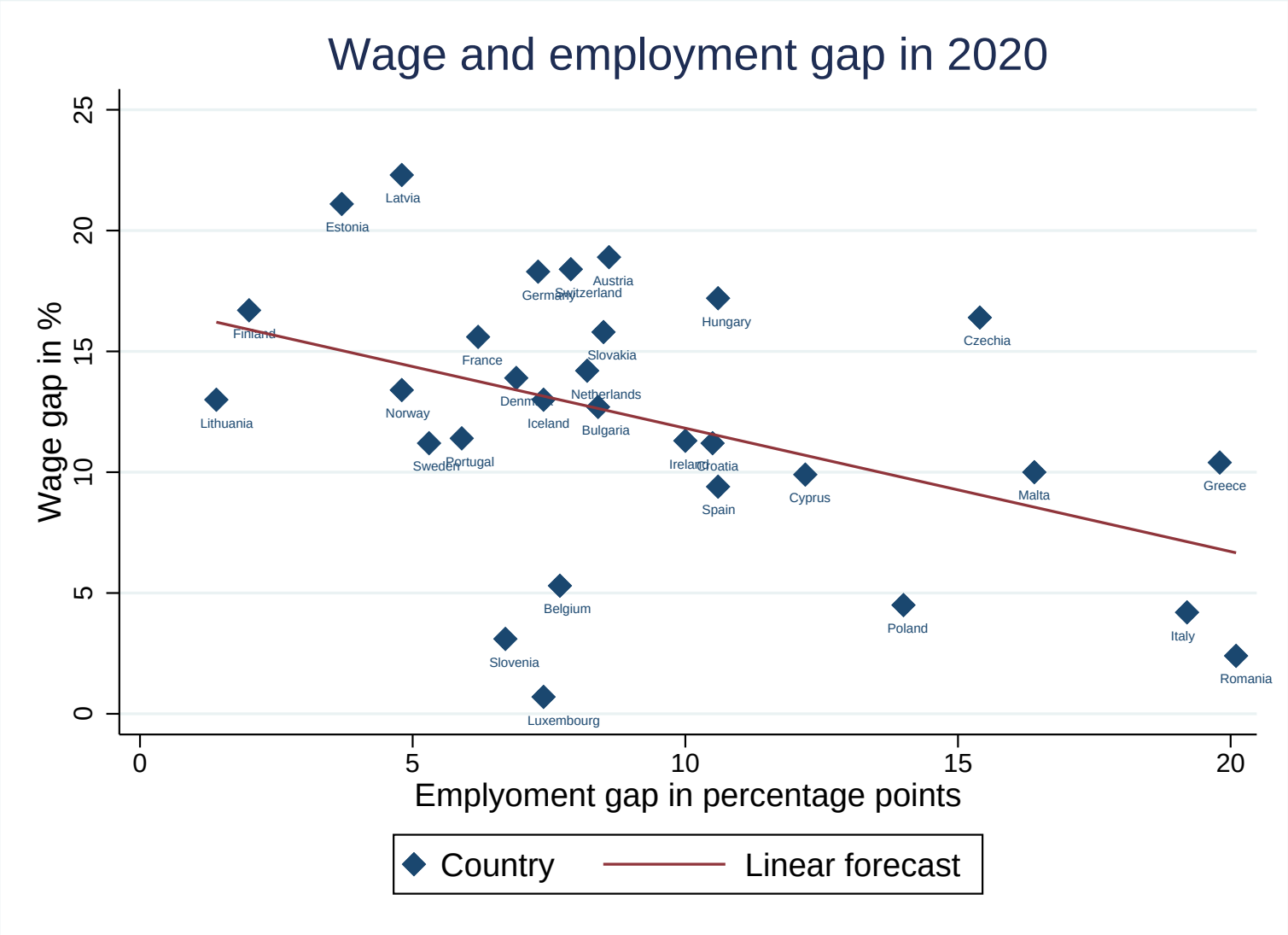
Note: For all the countries except Czechia and Iceland: data for enterprises employing 10 or more employees, NACE Rev. 2 B to S (-O); Czechia: data for enterprises employing 1 or more employees, NACE Rev. 2 B to S; Iceland: NACE Rev. 2 sections C to H, J, K, P, Q. Gender pay gap data for 2020 are provisional until benchmark figures, taken from the Structure of Earnings survey, become available in December 2024

(1) Estimated data
(2) Definition differs (see metadata)
(3) 2018 data

Source: Eurostat (online data code: sdg_05_20)

eurostat

Wage gap and employment in EU



Trend for Austria: data and sample

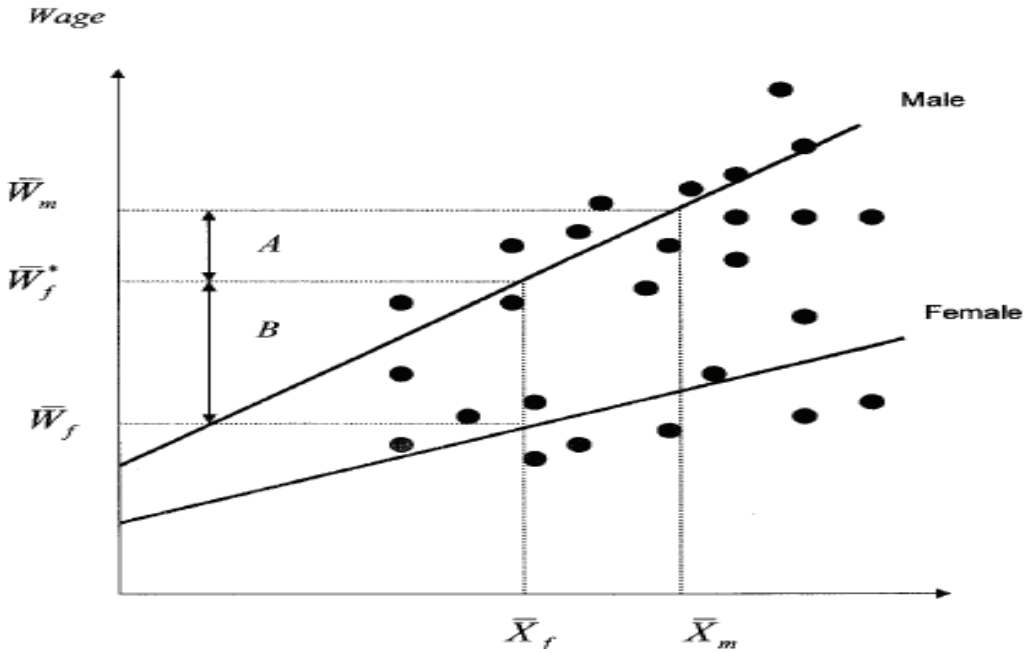
- Böheim, Fink and Zulehner 2022
- Austrian part of the European Union Statistics on Income and Living Conditions (EU-SILC) for the years 2005 until 2021
  - surveys private households and their current members each year and collects data on income, poverty, social exclusion, housing, labor, education, and health on the household and individual level
  - on average 6,010 households and 13,929 persons are surveyed per year
- sample
  - persons between 20 and 60 years old
  - private and public sector
- we calculate the hourly gross wage by dividing the usual monthly earnings (including overtime and bonuses) by the number of usual hours worked, 2014 CPI adjusted

Average wages, usual hours, 2005–2021

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
					Men				
Wage	15.34	15.48	15.60	15.23	16.25	16.39	16.21	16.14	16.11
Hours	41.03	40.63	42.01	42.19	41.74	41.33	40.95	41.26	41.32
Obs.	2393	2703	2993	2359	2304	2501	2445	2264	2280
					Women				
Wage	13.01	12.76	12.78	12.61	13.81	13.88	13.63	13.41	13.37
Hours	33.18	33.45	32.85	33.47	33.08	33.24	33.07	32.61	33.13
Obs.	1946	2260	2570	2067	2094	2296	2315	2228	2148

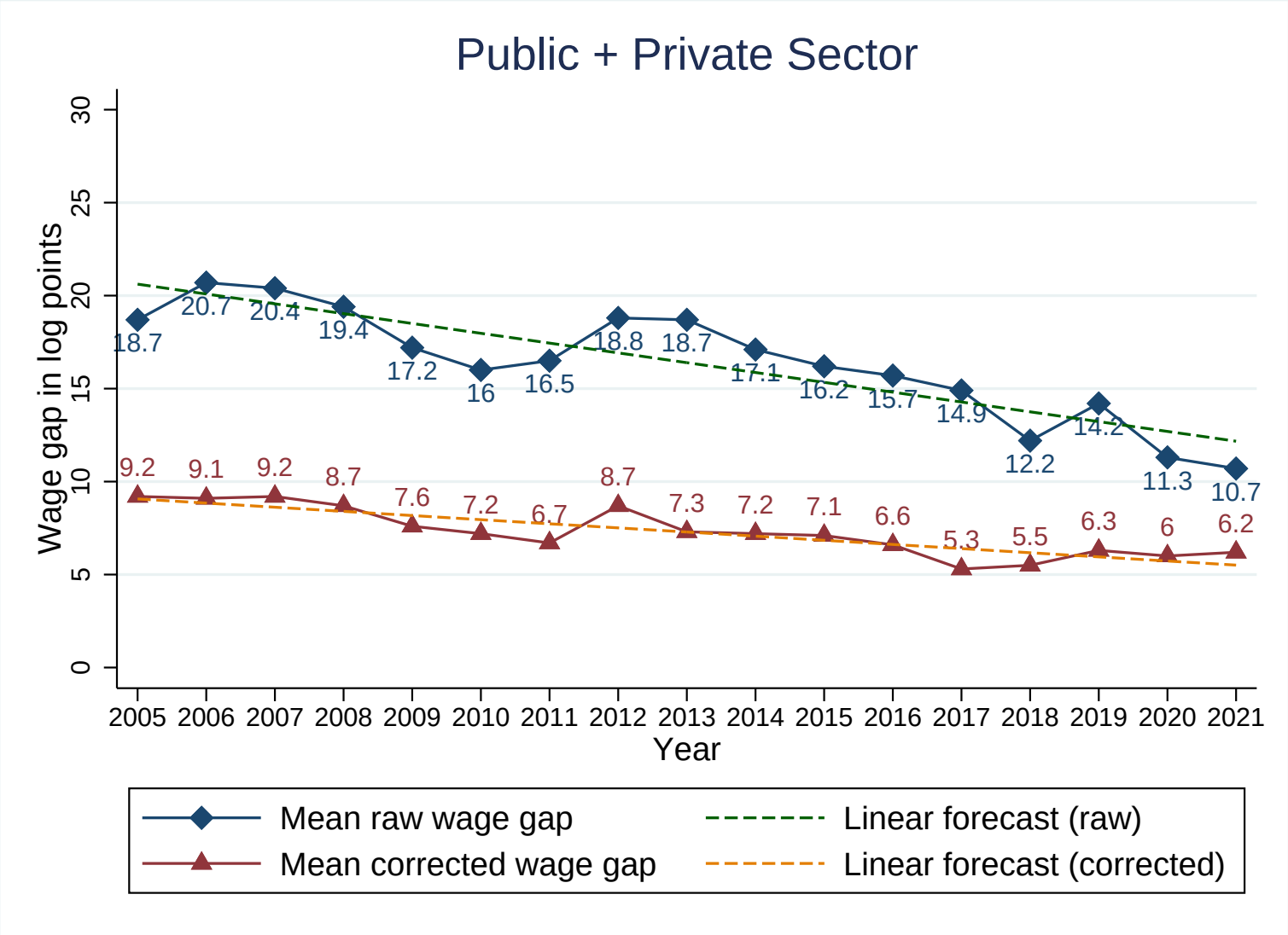
Year	2014	2015	2016	2017	2018	2019	2020	2021
				Men				
Wage	16.28	16.27	16.50	16.05	16.05	16.47	17.05	16.89
Hours	40.46	40.79	40.84	41.97	42.36	41.45	40.53	40.45
Obs.	2278	2277	2305	2311	1798	2170	2089	2079
				Women				
Wage	13.76	13.82	14.11	13.76	14.09	14.18	15.14	15.08
Hours	32.27	32.29	32.47	32.54	31.87	32.23	32.45	32.59
Obs.	2166	2219	2219	2346	2068	2180	2071	2097

Decomposition of wage gap (Blinder 1973, Oaxaca 1973)



- wage differential $\overline{W}_m - \overline{W}_f = A + B$
  - A due to different endowment
  - B due to discrimination or unobserved factors
- other counterfactuals: pooled w/ and w/o group dummy variable (Neumark 1982)

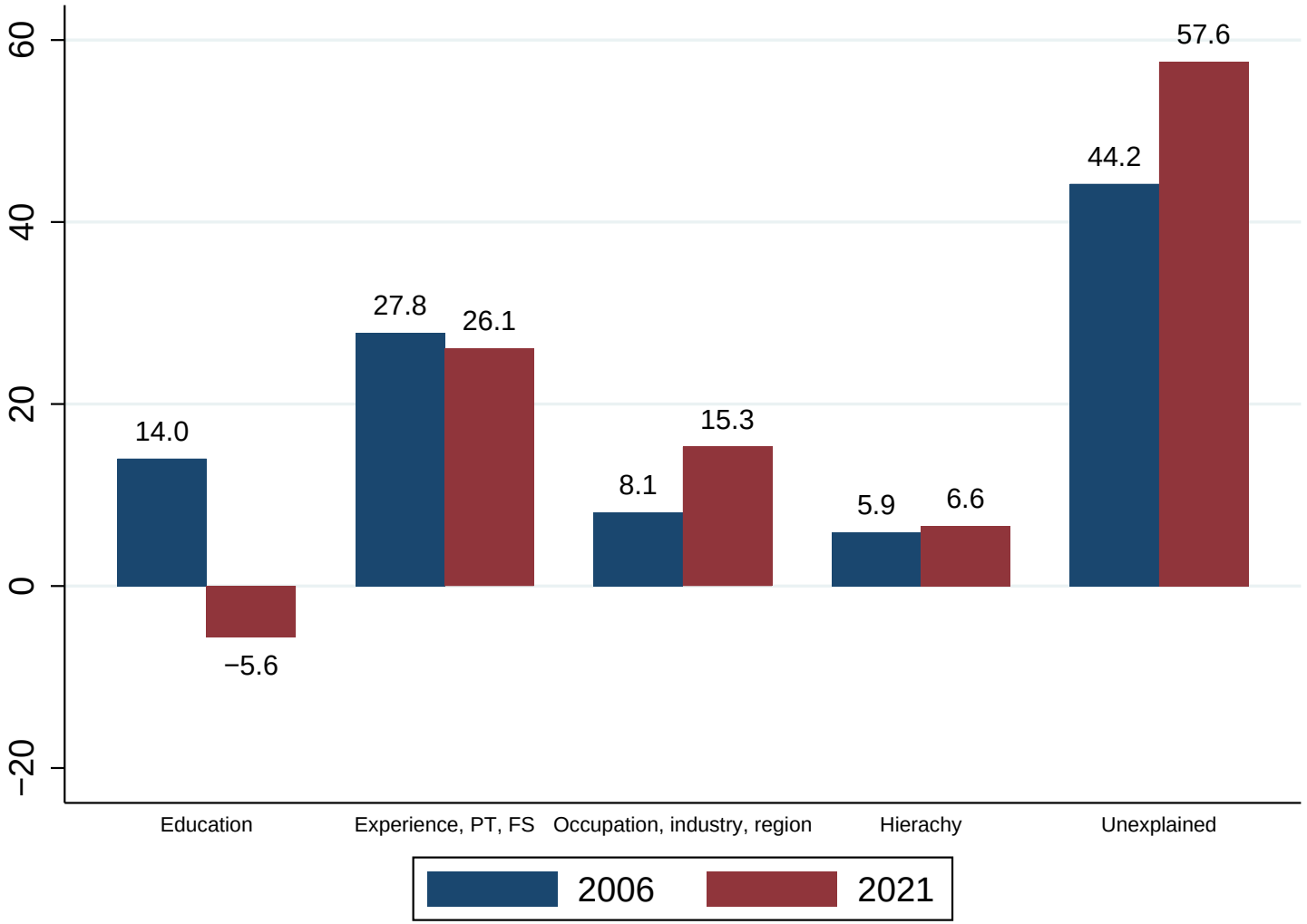
Gender wage gap in Austria (Böheim et al 2022)



Stepwise decomposition (Böheim et al 2022)

Difference in coefficients	(1)	(2)	(3)	(4)	(5)
Estimated value in log points 2006	0.2069	0.1779	0.1204	0.1037	0.0914
in % of the mean wage differential	100.0	86.0	58.2	50.1	44.2
Estimated value in log points 2021	0.1074	0.1134	0.0854	0.0690	0.0619
in % of the mean wage differential	100.0	105.6	79.5	64.2	57.6
Education		×	×	×	×
Experience, marital status, part-time			×	×	×
Status, occupation, industry, urbanization, citizenship				×	×
Hierachy					×

Relative contributions (Böheim et al 2022)



Career and family

- Women have less work experience and work more often part-time (Böheim et al 2013)
  - the younger the kids the higher the probability to work part-time
  - women with only compulsory schooling or a university degree work with a higher probability full-time than women with a highschool degree
  - the higher the household income the higher the part-time rate
- Birth of first child $\rightarrow$ income (wage) differences (Kleven et al 2019, 2020a, Jessen 2022)
  - couples are equal wrt to labor market outcomes before the birth of their first child
  - Denmark: 21% (9%), Sweden: 26%, US: 31%, US: 44%, Austria: 51%, Germany: 61% – highly correlated with the answer to the question that women with kids under school age should stay at home
  - reduction in female income (hours) share in West Germany by 0.239 (0.258) pp and in East Germany by 0.129 (0.128) pp

Education, career choice, and occupational segregation

- Horizontal segregation
  - girls more often opt for less math-intensive academic profiles (US, Austria, France, Netherlands, Germany ...)
  - US: girls take the same number of math courses as boys (Goldin et al 2006), but are underrepresented among high-achieving math students (Ellison and Swanson 2010)
  - math courses $\rightarrow$ higher wages (Schrøter Joensen and Skyt Nielsen 2015)
  - women seem to shy away from competition, men seem compete too much (Niederle and Vesterlund 2007), competitiveness correlates with educational choices and economic outcomes (Buser et al 2014, 2020)
- Last chapter to obtain equality (Goldin 2014)
  - wage differentials are high in occupations and industries where companies have the incentive to disproportionately remunerate people who work particularly long hours
  - "... solution does not (necessarily) have to involve government intervention and it need not make men more responsible in the home (although that wouldn't hurt)."

Wage negotiations and vertical segregation

- Salary negotiations
  - women tend to negotiate their own salaries less well than men, but salaries of others quite well (Riley et al 2005)
  - males and females ask equally often, but women "don't get it" (Artz et al 2016)
  - women know when to ask: there is a cost of leaning in (Exley et al 2020)
  - transparency reduces differences in negotiation (Riley et al 2005, Roussille 2022)
- Glass ceiling: women are less likely to have management positions
  - in Germany: 68.7% due to education, job, experience, etc, 8.6% due to psychological factors, 22.7% due to unobserved factors (Fietze et al 2007)
  - distribution of work tasks: women are more likely to take on non-promotional tasks in mixed teams (Vesterlund et al 2015)

Direct and indirect evidence of discrimination

- Explicit and implicit biases
  - blind auditions show that the percentage of women in orchestras has increased (Goldin and Rousse 2000), John vs Jennifer (Moss-Racusin et al 2021)
    $\rightarrow$ application process and promotions
  - discrimination and labor supply (Gagnon et al. 2022)
- Do companies with fewer women forego profits
  - positive correlation between employment of women and profitability of companies (Hellerstein et al. 2002, Kawaguchi 2007)
  - companies that hire more women than the industry average and women as managers at the fimr's start are more likely to survive (Weber and Zulehner 2014, 2010)
- Effect of competition
  - government de-/regulation (Ashenfelter and Hannan 1986, Black and Strahan 2001)
  - international competition (Black and Brainerd 2004, Weichselbaumer and Winter-Ebmer 2007)

Policy measures: childcare facilities and parental leave

- Childcare facilities
  - effect of legal entitlement to a kindergarten spot on labor market participation of mothers in Germany (Bauernschuster and Schlotter 2015)
  - expansions of parental leave and child care subsidies have had virtually no impact on gender convergence in Austria (Kleven et al 2020b)
- Parental leave
  - effect on mothers' careers (Lalive et al 2013), on female labor supply (Schönberg and Ludsteck 2007)
  - opportunity to take parental leave is more shared between both parents in Scandinavian countries $\rightarrow$ more childcare by fathers $\rightarrow$ lower income inequality (Kleven et al 2020a)
  - effect of paternity leave on social attitudes of kids (Felfe et al. 2022)

Policy measures: quota and transparency

- Effect of quotas
  - may increase efficiency: experimental evidence (Niederle et al 2013)
  - quota lead to an increase of women on board: Bertrand et al 2018, Ferrari et al (2021), Maida and Weber (2022), Bachleitner and Rieder (2023)
  - trickle-down: India (Beamen et al 2012), Chess (De Sousa and Niederle 2021)
- Gender pay gap transparency
  - Denmark's 2006 Act on Gender Specific Pay Statistics: mandatory transparency legislation reduced gender pay disparity, primarily by slowing down the growth of men's wages (Bennedsen et al 2020)
  - 2011 Austrian Pay Transparency Law: no discernible effects on male and female wages (Gulyas et 2021, Böheim and Gust 2021)

Conclusions

- Gender income and wage gaps are slowly decreasing
- Potential policy measures
  - convergence in labor market experience: parental leave policies and child care facilities
  - reduction of horizontal and vertical segregation
  - real transparency for income reports
  - competition on the product market which may also reduce firms' (local) market power (monopsony)

... thank you very much for your attention!