

The Evolution of Gender in the Labor Market

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* Based on joint work with Claudia Olivetti and Barbara Petrongolo for the Handbook of Labor Economics

Background

- ▶ Remarkable progress of women in the labor market marks one of the most significant economic and social changes of the past half a century
- ▶ Large increase in interest in gender topics since the 1990s
 - ▶ Claudia Goldin 2024 Nobel Prize
- ▶ Study of gender has contributed significantly to modern labor economics

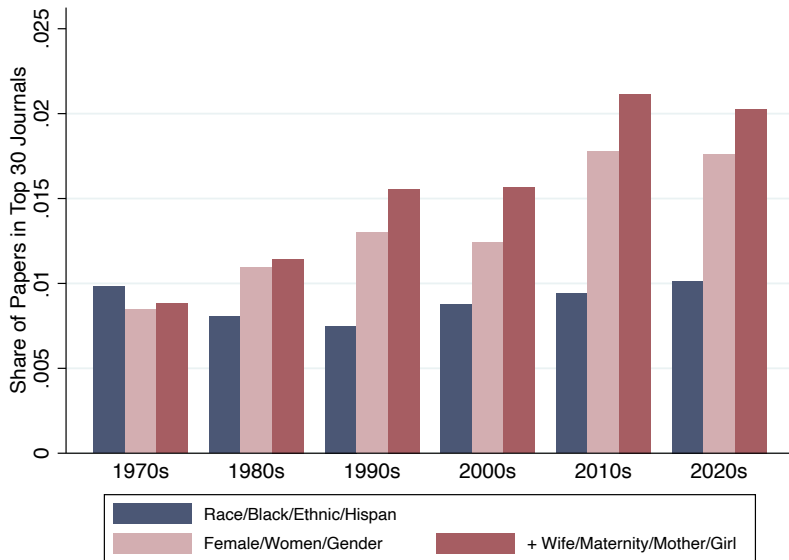
"It would not be much of an exaggeration to claim that women gave "birth" to modern labor economics, especially labor supply.

Economists need variance to analyze changes in behavioral responses, and women provided an abundance of that.

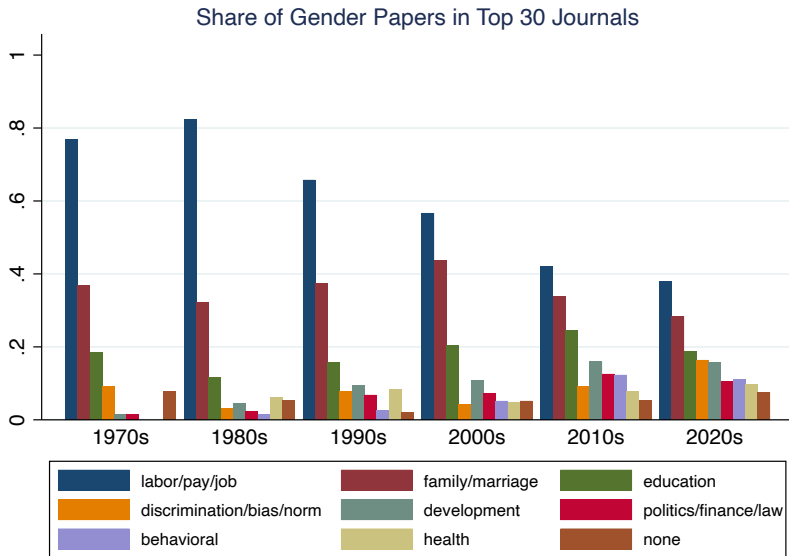
Men, by and large, were not as interesting, since their participation and hours varied far less in cross section and over time."

– Claudia Goldin, Ely Lecture, 2006

Gender vs. Race papers in top 30 economics journals



Evolution of topics in gender papers



This talk

1. Overview of trends
 - ▶ Gender inequalities over time
2. Evolving perspectives on gender inequality
 - ▶ Roles of preferences and constraints
 - ▶ The career cost of children
 - ▶ The role of gender norms
3. Brief discussion of policy responses

Overview

Overview of trends

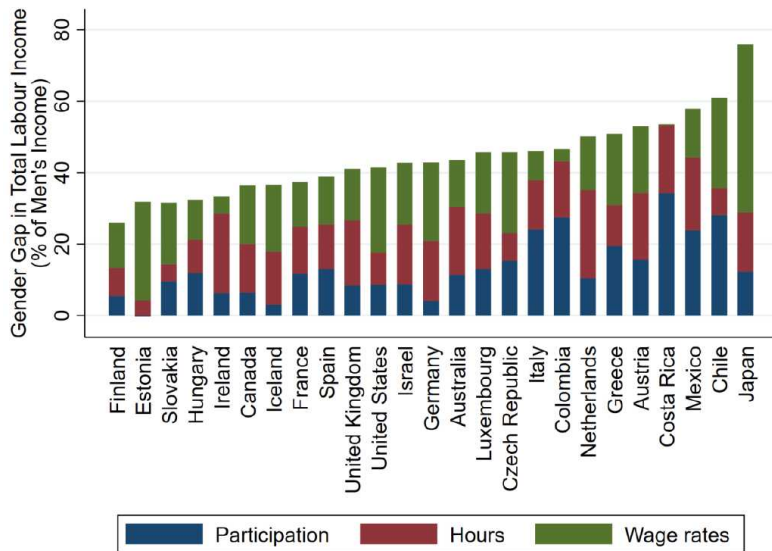
Current perspectives: Preferences and constraints

The career cost of children and its channels

Gender norms and stereotypes

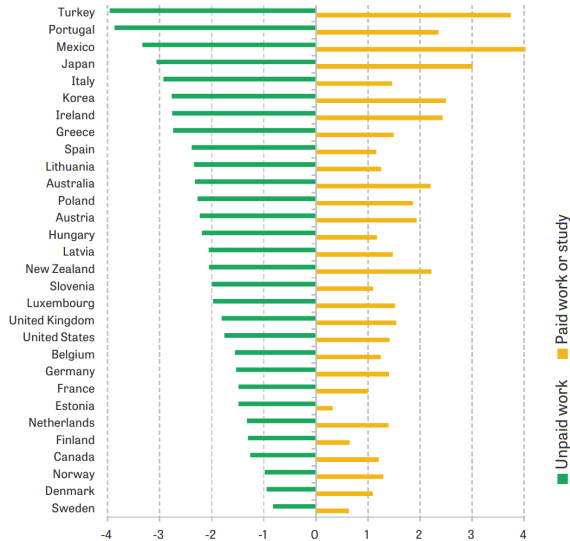
Brief discussion of policy responses

Gender gaps in earnings in high-income countries

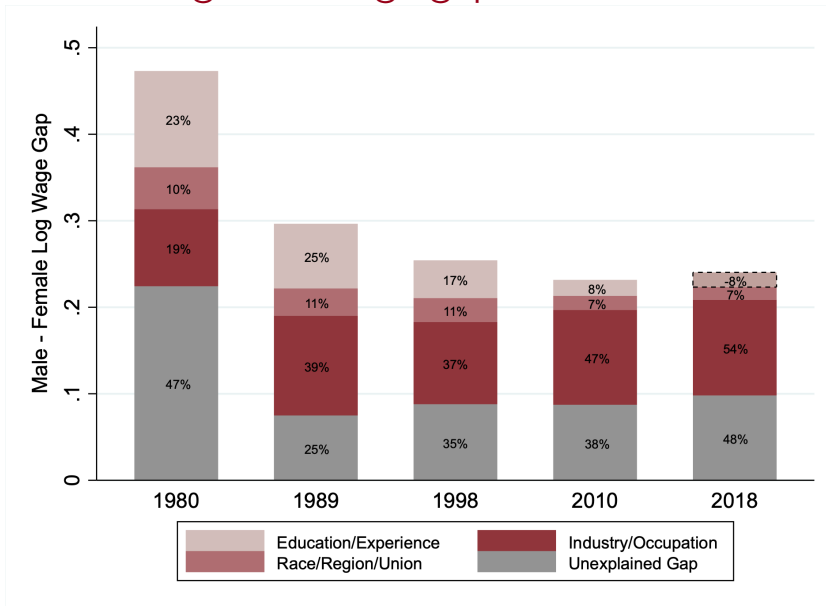


Source: Andrew, Bandiera, Costa-Dias and Landais (2022)

Gender gaps in paid and unpaid work ($h_{men} - h_{women}$)



Decomposition of gender wage gaps in the U.S.



Taking stock of the evidence

- ▶ Important hurdles on the path towards gender equality in all countries
 - ▶ Women make educational choices less conducive to high-earning careers
 - ▶ Large and persistent gender gaps in employment and wages
 - ▶ Women bear the whole earnings penalty from parenthood
 - ▶ Gender gaps in paid work more than offset by women's disproportionate involvement in domestic work
- ▶ Despite: equalized educational opportunities and equal pay legislation

1. Why have the gender gaps not closed?

2. (why) Is this a problem?

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Current perspectives

Two fundamentally different explanations for gender gaps:

1. **Essential differences** between men and women
 - ▶ *Inherent* differences in preferences, skills, or psychological traits drive educational choices and labor market outcomes
 - ▶ Gender inequality → manifestation of these differences
2. Men and women similar in relevant dimensions, but face different **opportunities and constraints**
 - ▶ Family responsibilities, social norms/stereotypes, discrimination
 - ▶ Gender inequality → symptom of misallocation

Challenges:

- ▶ *Observed* gender differences in skills/traits or preferences could be *endogenous* to norms/stereotypes/discrimination

How different are men and women?

- ▶ Gender differences in a number of **traits related to labor market success** have been documented in a variety of lab experiments
 - ▶ Risk-taking, competitive behavior, self-confidence, social preferences, etc.
 - ▶ But, these gender differences in psychological traits account for a modest proportion (16% or less) of the gender pay gap (Blau and Kahn, 2017).
- ▶ Mean gender differences in many traits are small relative to their variation within each gender
 - ▶ 124 traits considered by Hyde (2005): for 78%, large enough overlap between male and female distributions → men and women are **more alike than different** in many relevant traits.
- ▶ Clear exceptions in a few domains: motor skills, physical aggression, sexuality
 - ▶ Personal and professional consequences of sexual harassment and violence against women (Folke and Rickne, 2022; Adams et al., 2024)

Constraints, barriers, and their consequences

- ▶ Major advances in economists' understanding of gender gaps
- ▶ Differential gender opportunities and barriers → allocative efficiency
- ▶ New perspective on inequalities beyond zero-sum fallacy: gender equality as a pathway to unlock untapped talent
 - ▶ 20%-40% of US growth over past half a century can be explained by improved allocation of talent, due to declining occupational segregation for women and black men (Hsieh et al, 2019)
- ▶ Barriers to entry also matter for allocation of men's talent
 - ▶ UK social care sector (80% female): Attracting more male applicants improved selection of male talent (Delfino, 2024)
 - ▶ Finnish education sector: lifting a 40% male hiring quota in the 1980s lowered attainment among pupils

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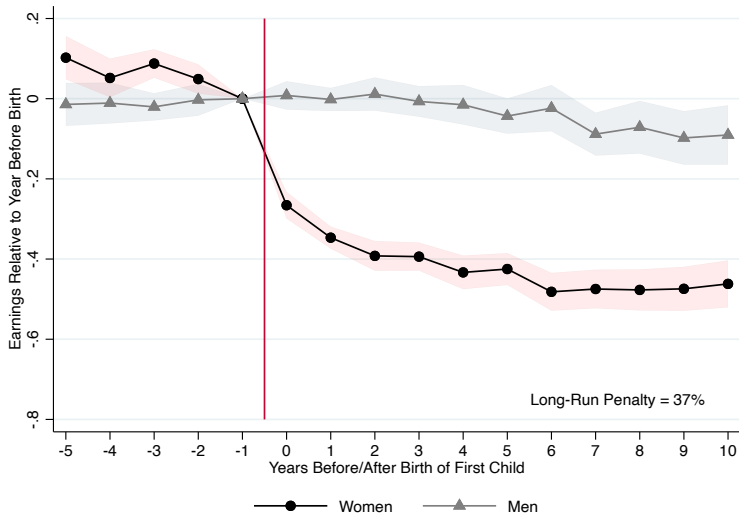
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The nature and sources of labor market barriers

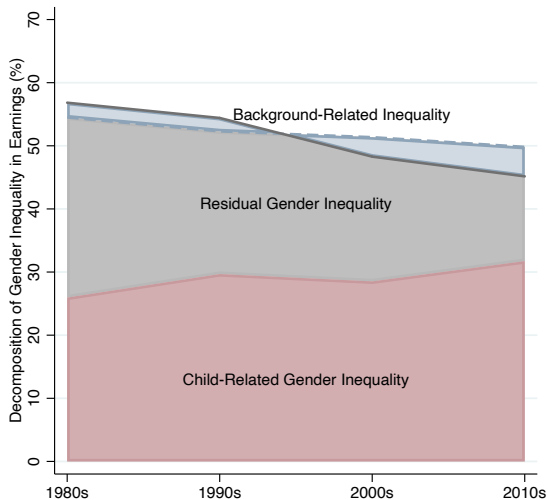
- ▶ Gender differences in constraints has emphasized women's primary role as child-bearers and carers
- ▶ Once human capital gaps have closed and reversed, and outright discrimination has waned, "*it's all about children*"
- ▶ While approaches to estimate the career cost of children differ on assumptions and strengths and weaknesses, consensus is that parenthood drives large and persistent drops in female earnings, relative to male earnings, a.k.a *child penalties*

Child penalties in earnings, U.S. 1976-2017



Source: Cortes and Pan (2023)

Decomposition of gender gaps in the U.S.



Source: Cortes and Pan (2023)

Anatomy of child penalties

▶ Biology?

- ▶ Evidence from adoptive and same-sex couples suggests biology largely irrelevant (Kleven et al, 2021; Andresen and Nix, 2022)

▶ Labor supply adjustments

- ▶ New mothers take career breaks, work fewer hours, and slip down the occupational ladder
- ▶ Willingness to pay for family-friendly job amenities
 - ▶ Work flexibility (Mas and Pallais 2017; Goldin, 2014), WFH (Bloom et al 2022)
 - ▶ Shorter commutes (Le Barbanchon et al 2021)
 - ▶ Shorter workweeks (Wasserman 2023)

Monopsonistic Labor Markets

- ▶ Mechanisms exacerbated in **non-competitive labor markets**
 - ▶ Compensating differentials: labor supply infinitely elastic to utility differentials; wages compensate for non-wage amenities
 - ▶ Monopsony: labor supply imperfectly elastic to utility; persistent utility differentials across jobs
- ▶ Evidence of **gender differences in job search**
 - ▶ Narrower search, constraints on (dis)amenities, risk aversion (Cortes et al 2022) set limits to the effective size of female labor markets
- ▶ Narrower outside options reduce labor supply elasticity to the firm and provide employers with **larger monopsony power** on female employees, esp mothers.
 - ▶ E.g., Caldwell and Danieli (2022) find that differences in outside options explain 20% of the gender wage gap in Germany
- ▶ Evidence of differential mark-downs?

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Gender norms

- ▶ Provide a natural explanation as to why work-family issues remain largely a "woman's problem" despite women's economic advancements
- ▶ Has attracted the most attention among the new classes of explanations highlighted by Bertrand (HLE, 2011)
- ▶ Akerlof and Kranton (2000) provide the theoretical foundation for much of the empirical work on this topic
 - ▶ Identity considerations directly enter an individual's utility function
 - ▶ Departure from prescribed behavior/norms generates disutility
- ▶ Growing literature has sought to provide direct tests of the relevance of the gender norms for women's relative outcomes

Evidence on the relevance of gender norms

▶ Career/marriage trade-offs

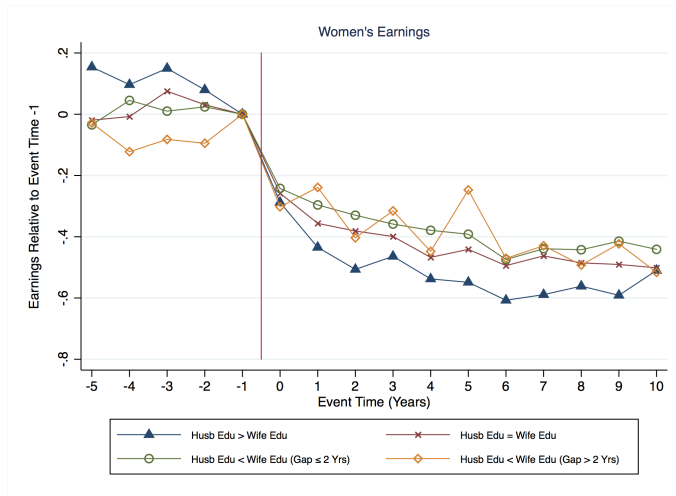
- ▶ Identity prescription that “a man should earn more than his wife” affects marriage formation, wives' LFP and earnings, division of chores, and marital stability (Bertrand et al., 2015)
- ▶ Job promotions for politicians increases likelihood of divorce for women relative to men in Sweden (Folke and Rickne, 2020)
- ▶ Women avoid career-advancing actions due to perceived or actual trade-offs between marriage and career (Bursztyn et al, 2017)

▶ Willingness to pay for conformity

- ▶ Response of spousal division of childcare to tax changes muted by gendered norms; couples willing to “leave money on the table” (Ichino et al., 2024)

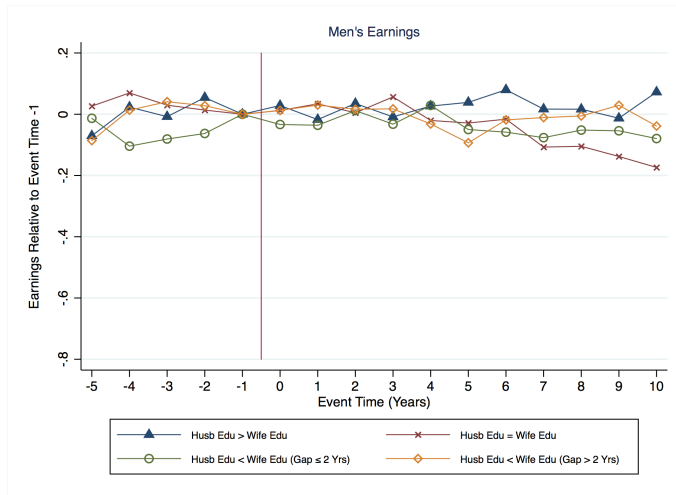
▶ Comparative advantage cannot explain gender division of labor in household (Siminski and Yetsenga, 2022) or child penalty (Andresen and Nix, 2022)

Child Earnings Penalties by Relative Skill, Women



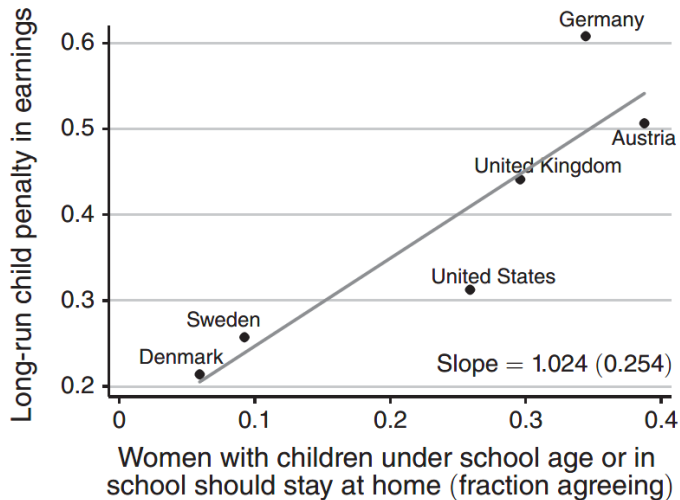
Source: Cortes and Pan (2023)

Child Earnings Penalties by Relative Skill, Men



Source: Cortes and Pan (2023)

Child penalties and gender norms



Source: Kleven, Landais, Posch, Steinhauer, Zweimueller, 2023

Norms, preferences, and behavior

- ▶ Strong consensus on the relevance of norms for explaining gender gaps in the household and labor market
- ▶ Our understanding of what drives norms and its wider implications on preferences and skills remain lacking
- ▶ If norms are important, individual decisions operate under the constraints imposed by these norms → observed differences in skills, traits, and preferences are endogenous to prevailing stereotypes and norms
 - ▶ Bertrand (2020), Lundberg (2022)
- ▶ Open question: To what extent are gender differences along these dimensions **intrinsic or socially conditioned?**
- ▶ If discrimination arises due to prevailing stereotypes about gender-specific roles and attributes, are **norms and discrimination** two sides of the same coin?

Stereotypes and (pre-market) discrimination

- ▶ Adults shape gender-appropriate behavior in children, affecting their educational choices and preferences
 - ▶ E.g.: teacher biases and prevailing gender attitudes matter for maths performance (e.g., Carlana, 2019; Nollenberger et al., 2016)
- ▶ Women's lower preferences for STEM careers/certain occs could be socially constructed
 - ▶ Lack of counter-stereotypical role models (Carrell et al, 2010; Breda et al, 2023)
- ▶ Women/men bear penalties when deviate from commonly accepted behavior
 - ▶ "Headstrong" girls and "dependent" boys experience earnings penalties in adulthood (Kaestner and Malamud, 2021)
 - ▶ Fathers face higher penalty for time-off than mothers (Weissharr, 2019)
 - ▶ Attribution bias: women penalized more for bad performance than men (e.g., Sarsons, 2017; Egan et al, 2022)

Open Questions

- ▶ How do gender norms evolve in the face of market forces that are making these norms increasingly costly?
- ▶ What are the types of gender norms that are likely to change or become relevant as the economic and social environment changes
- ▶ What does it take to precipitate and sustain widespread cultural change?

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Policy responses

- ▶ Work-family trade-offs
 - ▶ Augmenting work-family amenities
 - ▶ Equalizing childcare
 - ▶ Changing the structure of work
- ▶ Accelerate adjustment of social norms
 - ▶ Weaken traditional division of labor
 - ▶ Exposure to counter-stereotypical behavior

Family-friendly policies

- ▶ Large number of public policies and firm-level HR policies that are aimed at work-family considerations within the workplace:
 - ▶ Parental leave, part-time work, shorter hours, flexibility during the workday
 - ▶ Subsidizing childcare services
- ▶ May attract and retain women, but will not reduce gender pay gap as long as flexibility is negatively priced in the labor market.
 - ▶ Raise costs of hiring women; avoid assigning women to important jobs/clients
 - ▶ Maternity leave policies have limited positive effects on labor market outcomes; long leaves detrimental (Olivetti and Petrongolo, 2017).
- ▶ Outsourcing childcare generally allows women to commit more fully to work; such policies typically more effective in countries with low FLFP
 - ▶ But, children are time-consuming – if the aim is to contract out all aspects of childcare, then why have kids?

Equalizing childcare

- ▶ Paternity leave provisions and policies to encourage fathers to take up parental leave ("daddy quotas") increasingly common
 - ▶ Fathers do take up their dedicated quota, but not more than that
 - ▶ Some persistent effects on father's involvement in childcare and division of labor (Schober, 2014; Farre and Gonzalez, 2019)
 - ▶ Effects on women's labor market outcomes are fairly muted so far
- ▶ Could potentially address the core of what is holding women back. But effectiveness may be constrained by broader set of norms
 - ▶ Take-up by fathers is a function of their identity and reputational concerns (e.g. Dahl et al., 2014)
 - ▶ Unintended negative effects on marital stability in the short-run (e.g. Avdic and Karimi, 2018)

Changing the structure of work

- ▶ Large differences in “flexibility penalties” across occupations – matter of job design?
- ▶ If work can be reorganized (with little or no productivity costs):
 - ▶ Find ways to make employees more substitutable to clients
 - ▶ Adapt job structure or leverage on technology
 - ▶ Remunerate employees on the basis of output rather than input
 - ▶ Ease coordination across competing firms towards more family-friendly work organization
 - ▶ Push more women to top organizational layers to accelerate job re-design
- ▶ Case studies from specific occupations may be instructive

Conclusion and research agendas

- ▶ Gender is now a mainstream topic in (labor) economics
- ▶ Much of the recent work on the remaining disparities centers around the **tension between work and family**, focusing on constraints imposed by **organization of work** and **societal norms**.
- ▶ Open question and avenues for research:
 - ▶ How do **firms** contribute to gender gaps in noncompetitive labor markets?
 - ▶ **Greater tension** between work and family?
 - ▶ “Future of work” does not seem to hold the solution
 - ▶ Rising parental time demands: childcare is “greedy” too?
 - ▶ How to **shift gender norms**? What policies/interventions are effective and why?