



# Gender Wage Gap

## Inequality: Week 3

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## Outline

- What is gender wage gap?
- Gender wage gap in numbers.
- What are the potential causes for this gender wage gap?
- What can we do?



# The Issue of Gender Wage Gap

**Half of U.S. adults say women being treated differently by employers is a major reason for the gender wage gap**

*% of U.S. adults who say each of the following is a \_\_\_ reason why women earn less, on average, than men*

**“We have to pass pay equity for women workers. It is not acceptable that women are making 78 cents an hour compared to men.”**

-- Sen. Bernie Sanders, 2015

	Major	Minor	NET
Women are treated differently by employers	50	30	80
Women tend to make different choices about balancing work and family	42	33	75
Women tend to work in jobs that pay less	34	35	69

Source: Survey of U.S. adults conducted Oct. 10-16, 2022.  
PEW RESEARCH CENTER

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# Popular Theories

- Biased managers and co-workers
- Occupational segregation
- Inferior bargaining skills
- Lack of competitiveness
- And more

**We will delve deeper into what is meant by gender wage gap and how economists think about the issue.**

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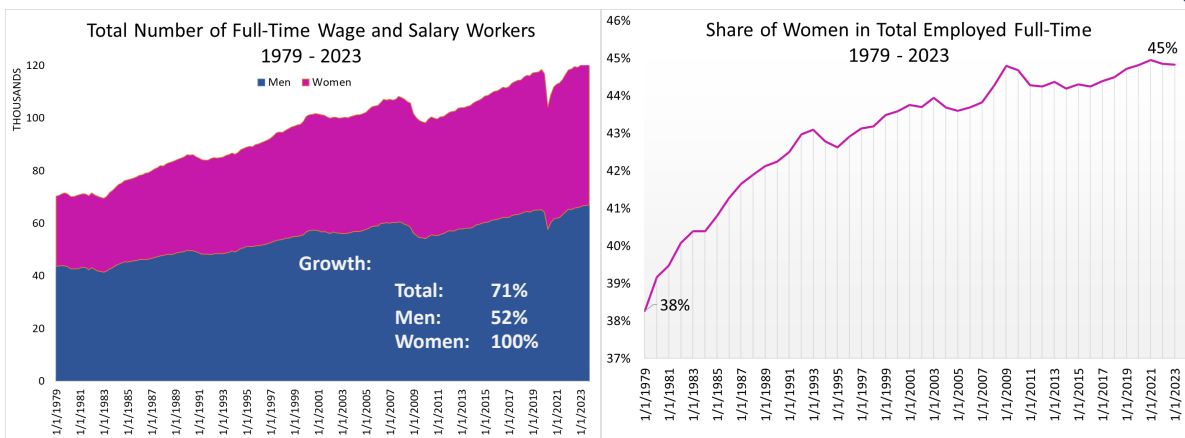
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## Significant strides have been made

- Progress made in combating gender inequality and discrimination against women in workplace since the 1970s
  - The Fair Labor Standards Act of 1938,
  - The Equal Pay Act of 1963,
  - Title VII of the Civil Rights Act of 1964, and
  - The Pregnancy Discrimination Act of 1973 in conjunction with
  - Providing Urgent Maternal Protections (PUMP) for Nursing Mothers Act
  - Pregnant Workers Fairness Act
- “Gender Revolution”

## Composition of the Full-Time Workforce



## What is Gender Wage Gap?

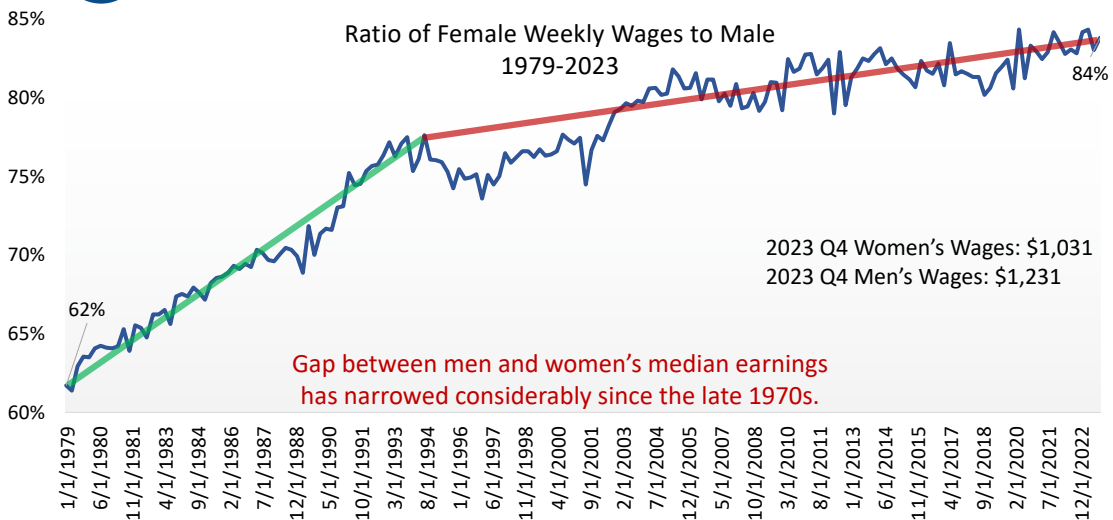
- Gender wage gap represents the difference in median earnings of women relative to those of men.
- The gap is usually calculated as a ratio of women’s earnings to men’s earnings.
  - For example, in the fourth quarter of 2023, median weekly earning for full-time women workers was \$1,031, and that for men was \$1,231.
  - Therefore, the gender wage gap in Q4, 2023 was:

$$\frac{\$1,031}{\$1,231} = 84\%$$

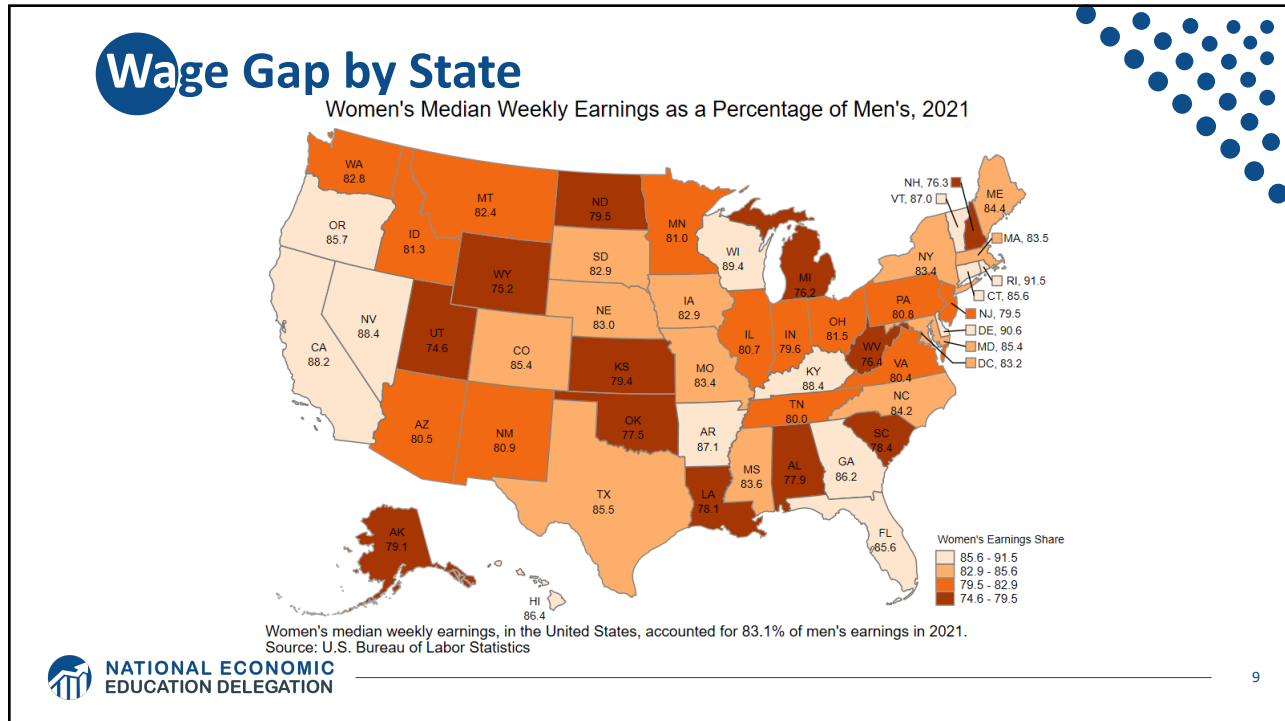


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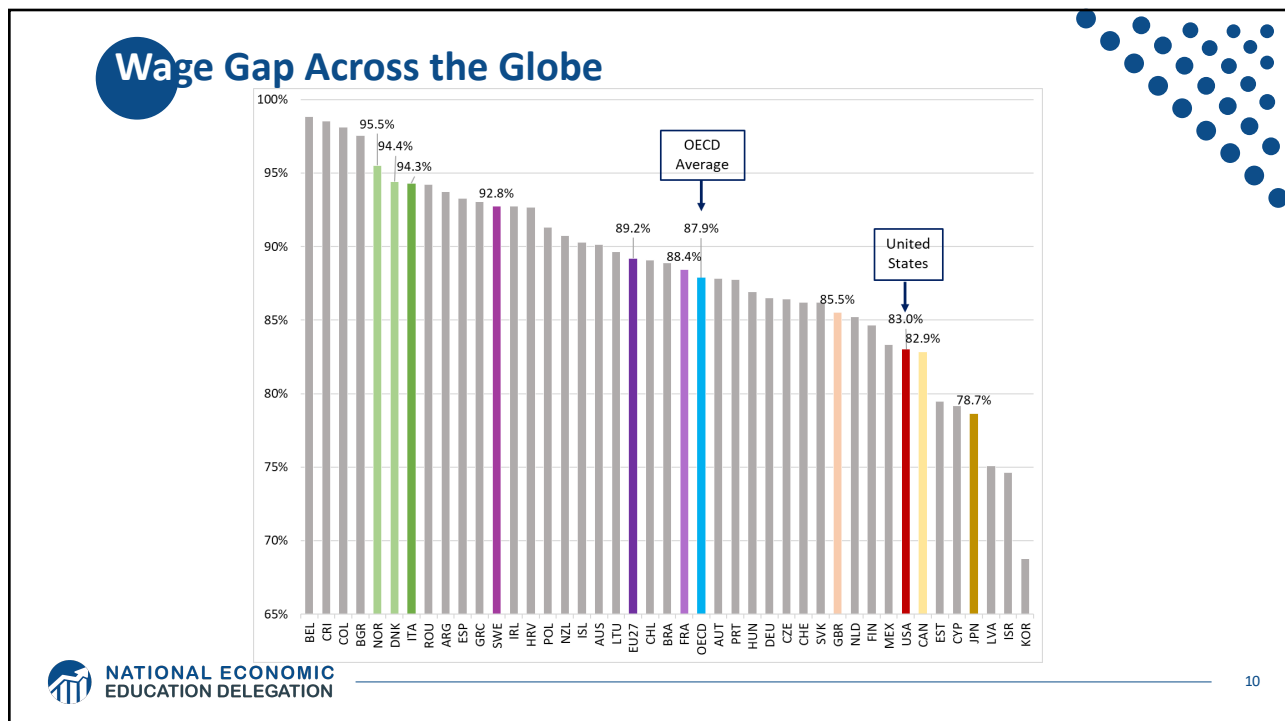
## Relative Wage Gap Over Time



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## What is NOT included in these calculations?

- **These are unconditional or uncontrolled or raw wage gap.**
- **The difference doesn't account for differences in:**
  - Age and Experience
  - Occupation
  - Educational attainment
  - Job skills and responsibilities
  - Specialization



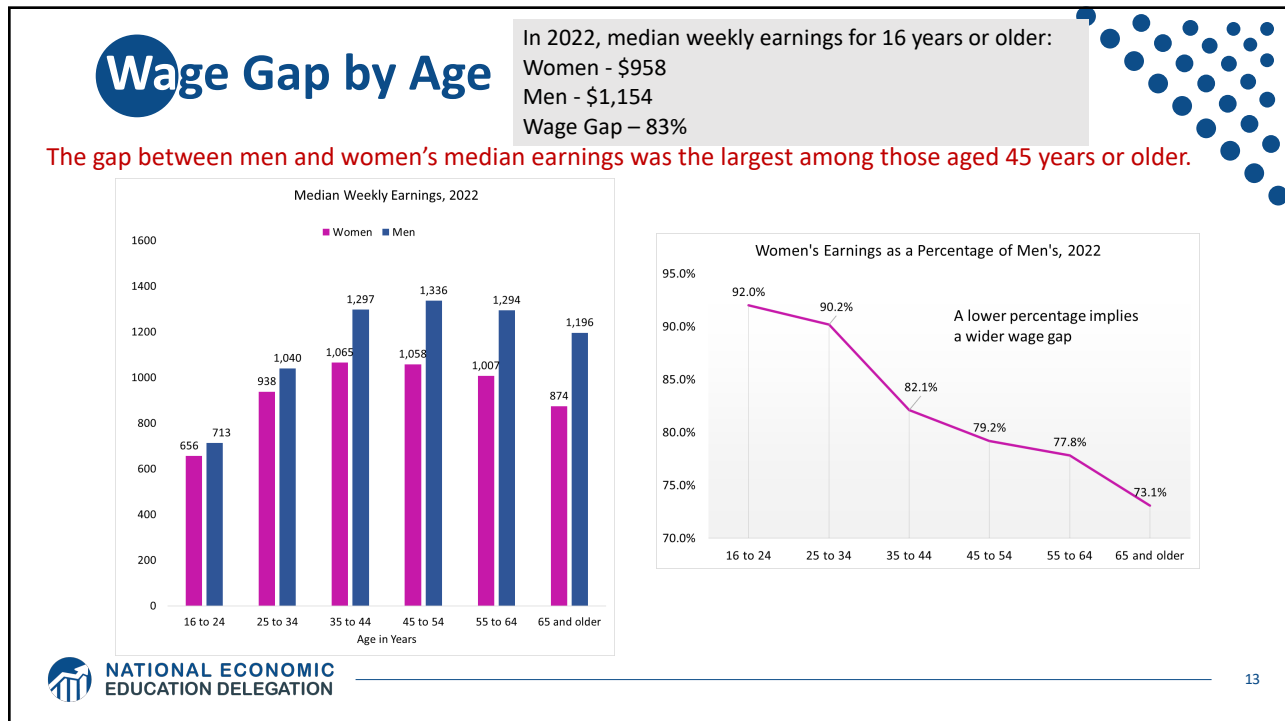
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## The Wage Gap

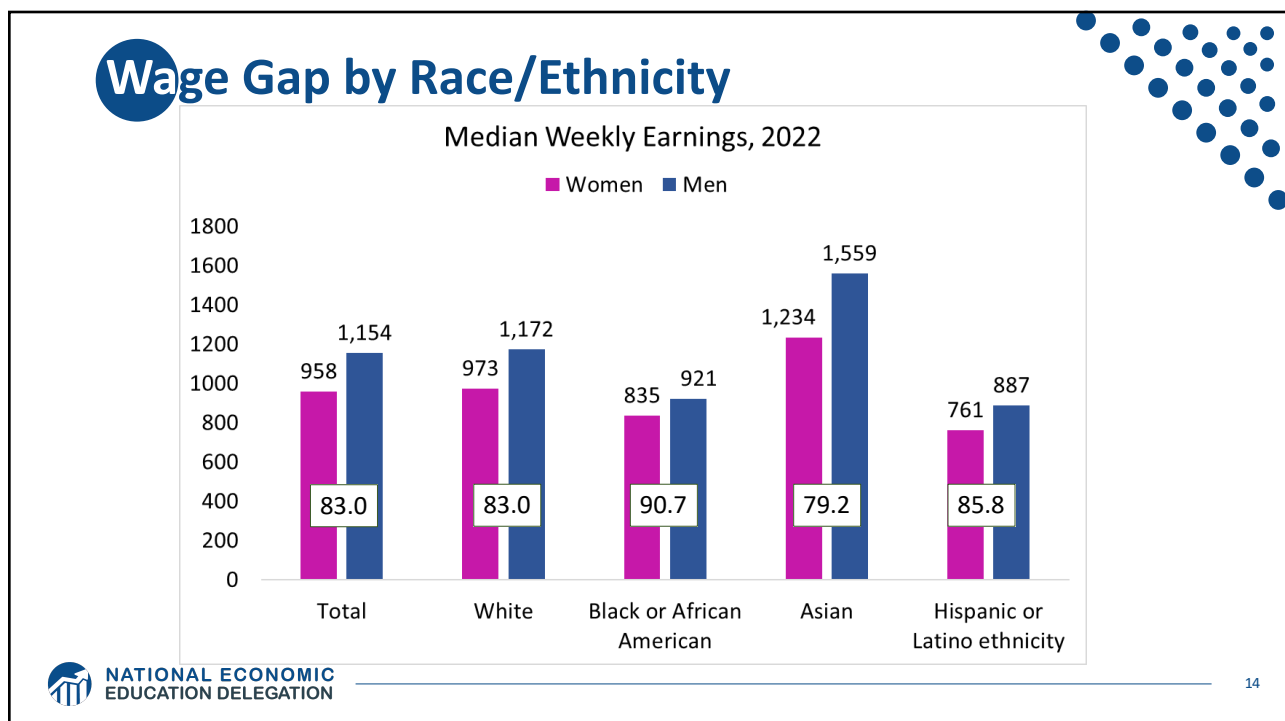
- **Gender wage gap is not a single statistic; it's dynamic.**
- **Average wage comparison based on a limited sample. Men and women:**
  - Working full time
  - Working year round
- **Wage gap is not: Apples to Apples**
  - Does not compare wages of men and women in the same occupation or industry.



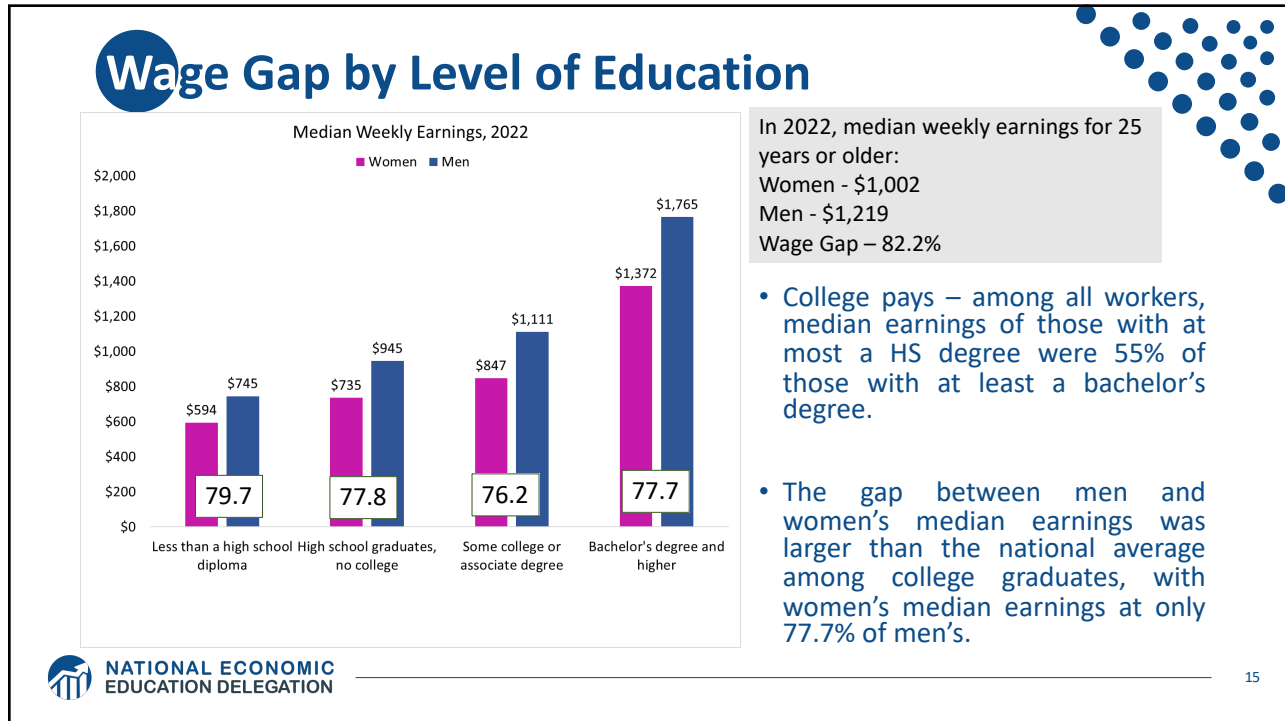
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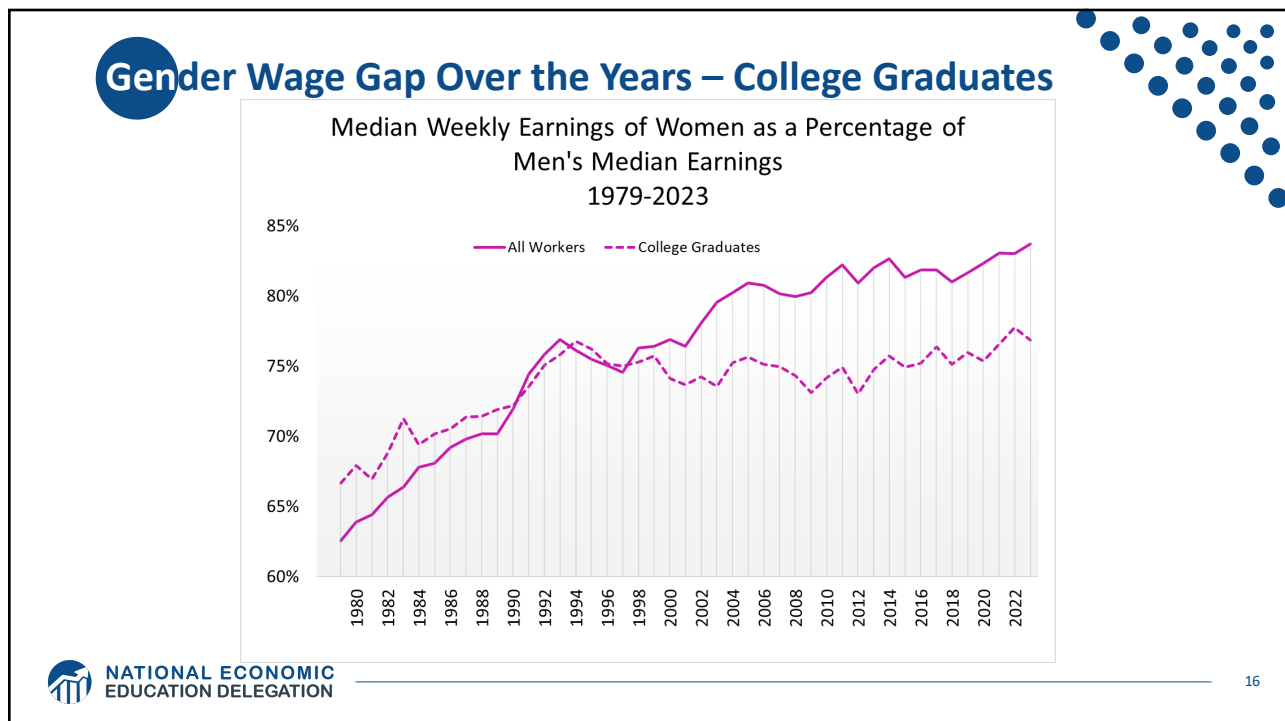
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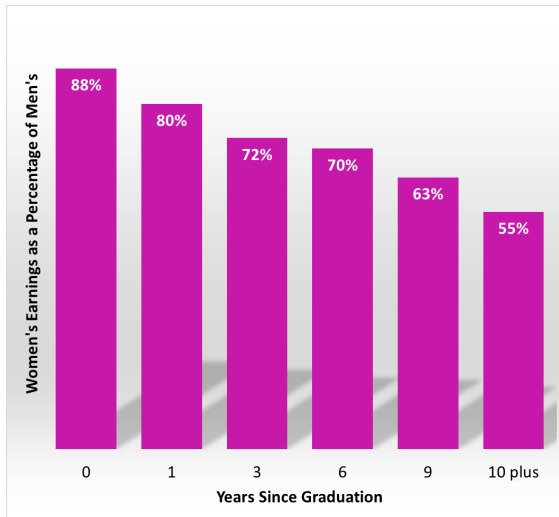
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## Wage Gap Widens with Age and with Years After Leaving School



- From Bertrand, Goldin, Katz (2010)
- Directly following MBA receipt, average earnings are comparable among men and women, but they soon diverge.
- In the first 9 years after graduation, women's average earnings increase by 117%, while those of men increase by 208%.



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## Wage Gap Among MBA Graduates Not Random

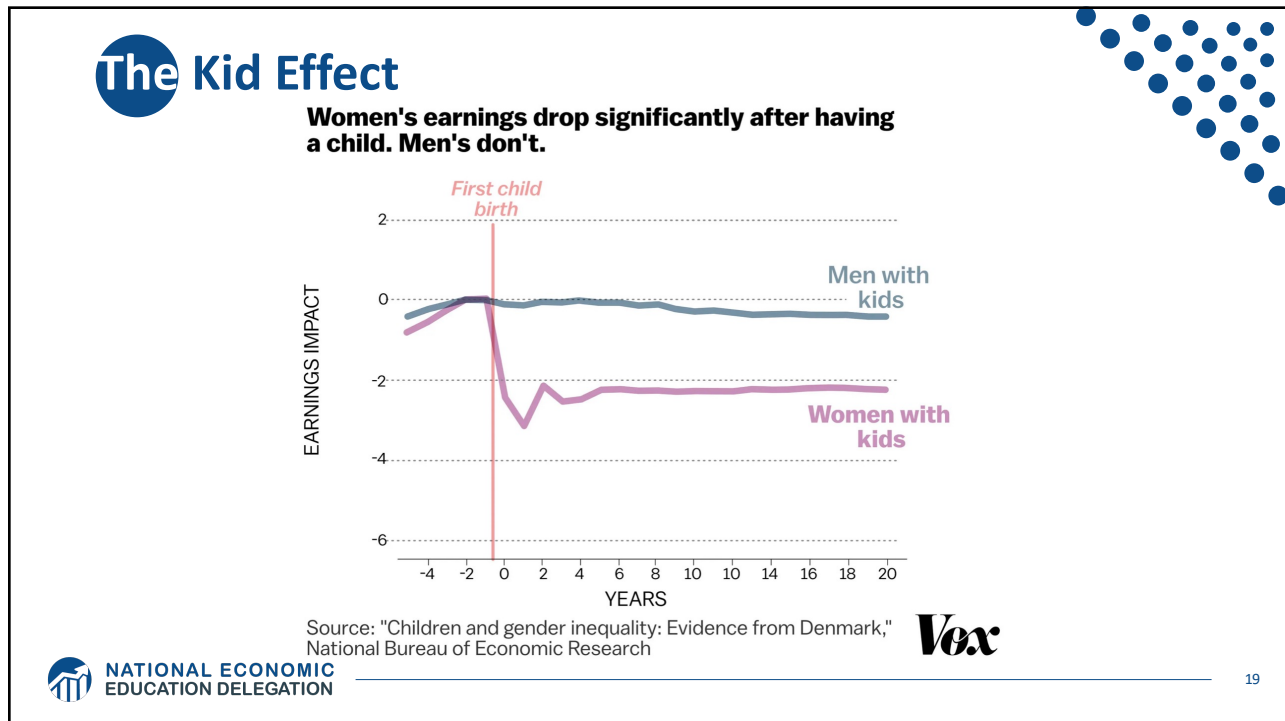
- **The sample controls for ability, training and education**
- **Almost all the gap can be explained by:**
  - Career interruptions
  - Differences in average weekly work hours
    - o 49 hrs vs 57 hrs for men
    - o More part-time, self-employed workers
- **The gap grows largely with the arrival of children**
  - Well-intentioned paternalism by supervisors
  - Husband's position on the earnings distribution
- **Several studies, even those from Nordic countries, support these results**



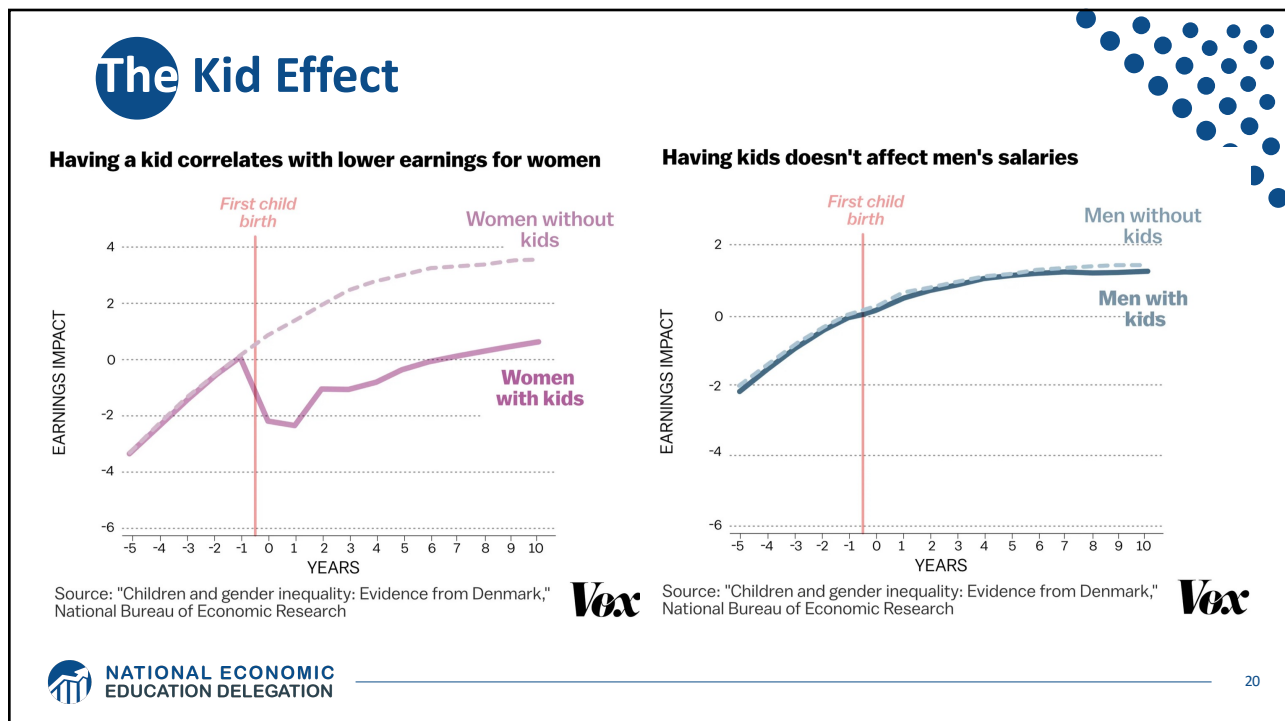
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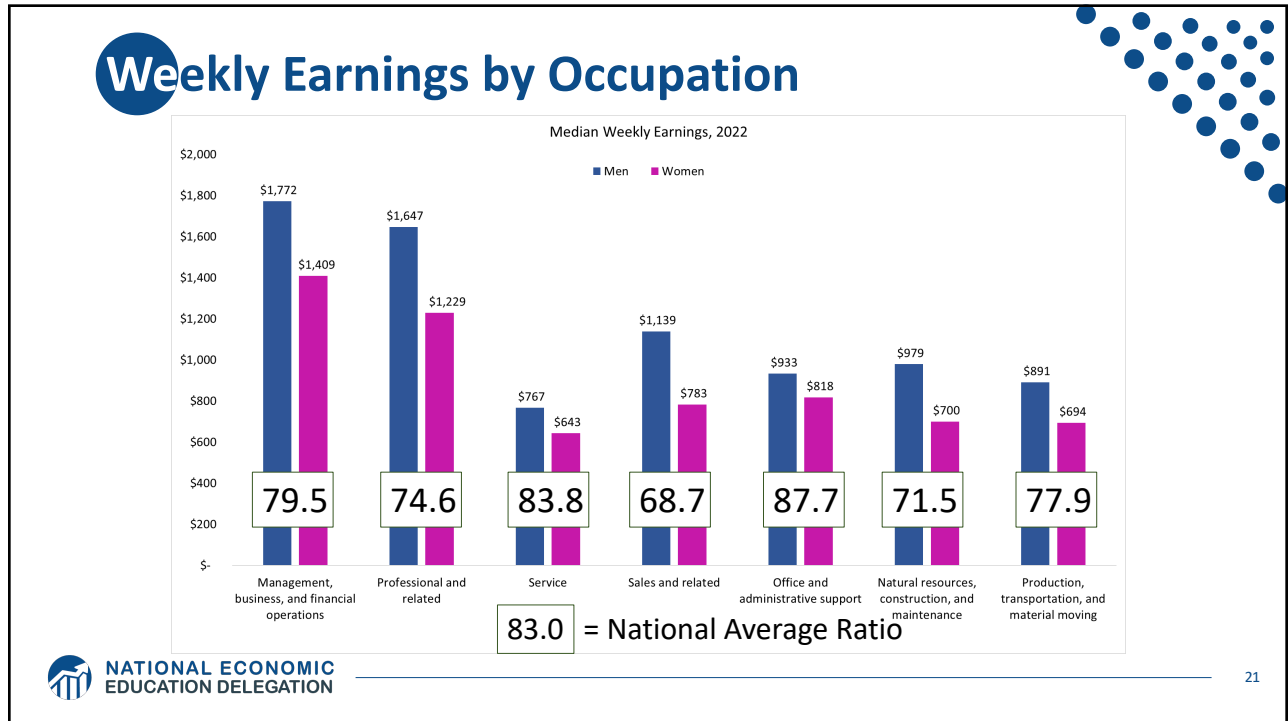
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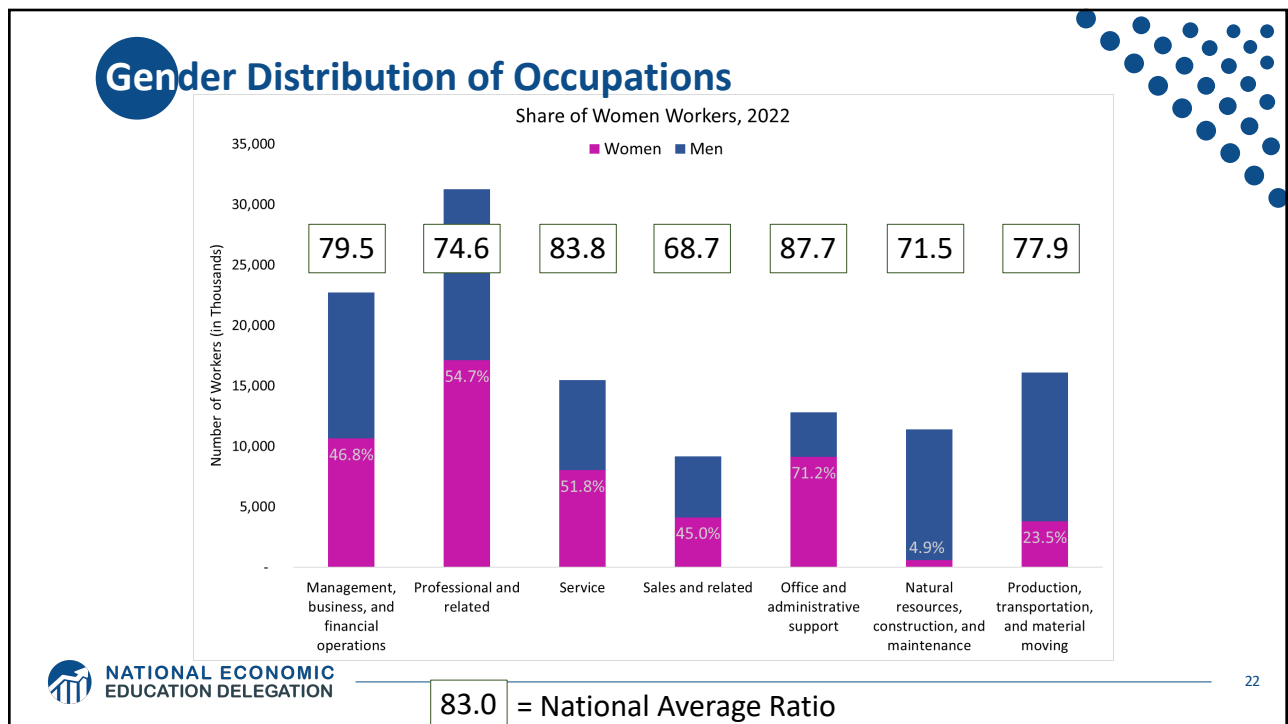
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## Occupations with the Lowest Wage Gap, 2022

Occupation	Female-Male Median Weekly Earnings Ratio	Share of Women in the Occupation	Share of Women Workforce
Compliance officers	104%	55%	0.3%
Licensed practical and licensed vocational nurses	103%	87%	0.8%
Wholesale and retail buyers, except farm products	102%	51%	0.1%
Teaching assistants	100%	86%	1.4%
Educational, guidance, and career counselors and advisors	100%	75%	0.5%
Other life, physical, and social science technicians	98%	50%	0.2%
Physical therapists	98%	64%	0.3%
Special education teachers	97%	82%	0.5%
Office clerks, general	96%	87%	1.6%
Social workers, all other	95%	81%	1.0%
Security guards and gambling surveillance officers	95%	26%	0.4%
Packers and packagers, hand	94%	58%	0.6%
Industrial truck and tractor operators	94%	9%	0.1%
Stockers and order fillers	94%	36%	0.8%
Loan interviewers and clerks	94%	68%	0.2%
Market research analysts and marketing specialists	93%	58%	0.4%
Shipping, receiving, and inventory clerks	93%	35%	0.4%
Packaging and filling machine operators and tenders	93%	51%	0.3%
Office and administrative support workers, all other	91%	74%	0.7%
Software developers	90%	21%	0.8%
Production, planning, and expediting clerks	90%	49%	0.2%
Elementary and middle school teachers	90%	79%	4.6%
<b>Total</b>			<b>15.7%</b>



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## Occupations with the Highest Wage Gap, 2022

Occupation	Female-Male Median Weekly Earnings Ratio	Share of Women in the Occupation	Share of Women Workforce
Real estate brokers and sales agents	63%	54%	0.5%
Personal financial advisors	63%	38%	0.3%
Sales managers	68%	35%	0.4%
Financial managers	69%	55%	1.3%
Inspectors, testers, sorters, samplers, and weighers	70%	40%	0.5%
Recreation workers	71%	56%	0.1%
Insurance claims and policy processing clerks	74%	82%	0.4%
Medical and health services managers	74%	72%	0.9%
Sales representatives of services, except advertising, insurance, financial services, and travel	75%	28%	0.3%
<b>Total</b>			<b>4.8%</b>



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## These are still unadjusted wage gap numbers

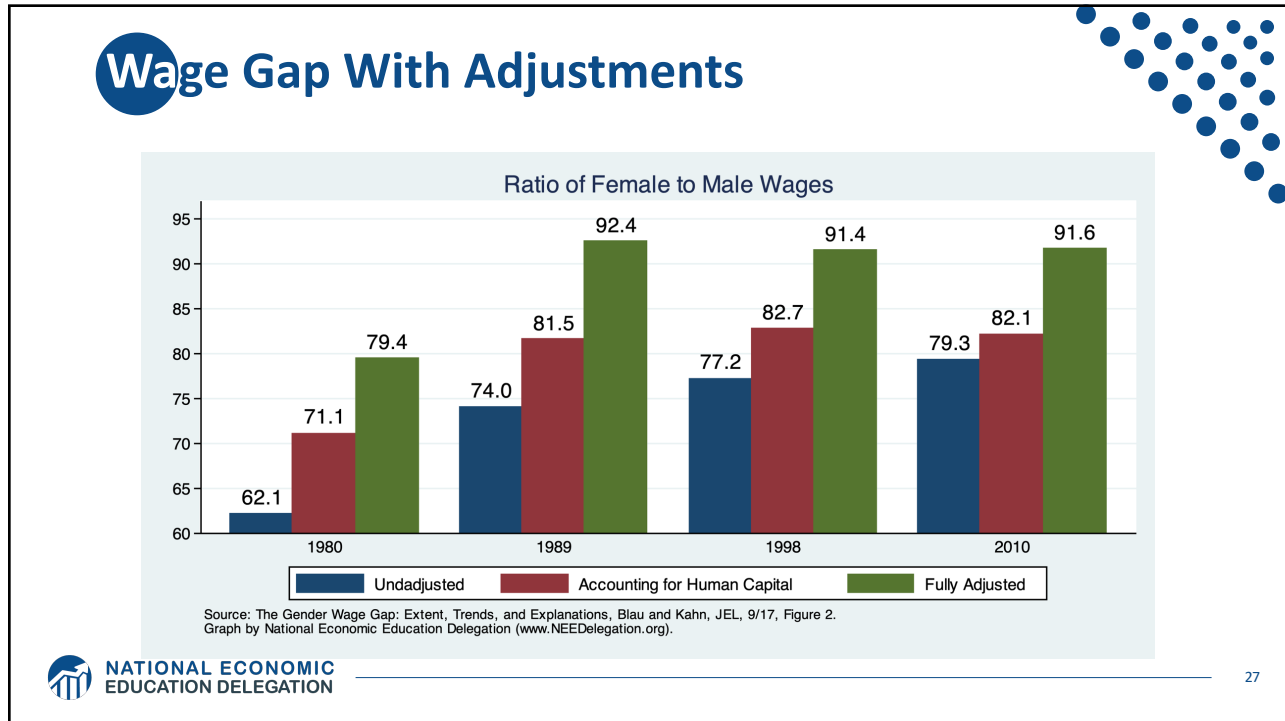
- Controlled for one or two factors at a time
- May still not fully explain earnings differences
- For example, when comparing median earnings differences by occupation, we still would like to know if these differences can be further explained by differences in other key factors such as
  - age,
  - job responsibilities,
  - work experience, and
  - other individual life choices such as marital status or to have children and to take time off to raise them.



## Adjusting the Wage Gap

- **Men and women make different choices. It is possible to account for some of those choices to explain the wage gap.**
- **Two possible adjustments:**
  - **Adjustment 1 accounts for human capital:**
    - Education
    - Experience
    - Geographic region
    - Race
  - **Adjustment 2 also accounts for:**
    - Unionization
    - Industry
    - Occupation





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## Gap Occurs Primarily WITHIN Occupations

Occupational differences and wage gap

	Between Occupations	Within Occupations
All Workers	15%	85%
College Graduates	35%	65%

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Source: Reassessing the Gender Wage Gap: Sharing Jobs, Equalizing Pay, Right Now, the Expanding Harvard Universe.

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## Non-Linearities in Pay and the Wage Gap

- **Pay increases with the number of hours worked each week.**
  - Why?
    - In some occupations, workers are not good substitutes for each other.
    - To ensure continuity, employers value individual workers working more hours.
  - Implications:
    - Men and women in traditional households divide the work.



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## Explaining Gender Wage Gap by Occupation

- **Women, traditionally, the “on-call” parent – Goldin [2021]**
- **Prefer occupations with**
  - shorter hours,
  - fewer “on-call” hours,
  - predictable schedules
  - standardized products/services
    - greater substitutability of workers within teams
- **Men, traditionally, opt for jobs with greater time demands but pay more**
- **Appear to care less about time flexibility**
  - Ready to work evening/weekend hours to meet clients



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## Gap Occurs Primarily WITHIN Occupations

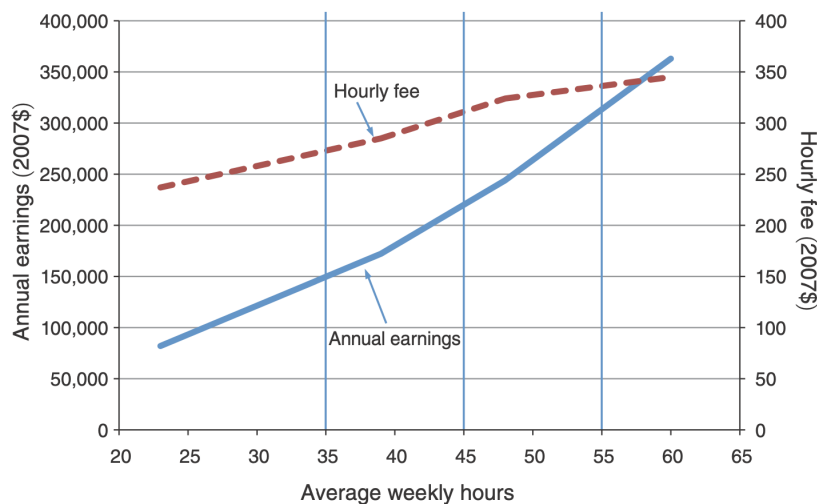
- Not all occupations have the same pay gap.
  - Depends on how substitutable workers are.

	Wage Gap
Science and Health Professions	89%
Business and Finance	79%
Law	82%
<b>Overall</b>	<b>78%</b>

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## Evidence on Non-Linearities from Law Firms

Lawyers:  
Hours go up  
So does hourly pay



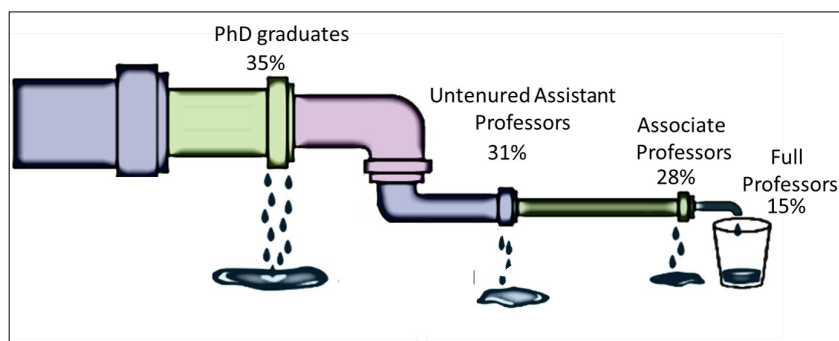
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## The Leaky Pipelines Phenomenon

- In many professional occupations
  - There's a more equitable gender distribution at entry level,
  - But at the higher ranks, number of female workers plummets.
- Time demands – likely explanation?

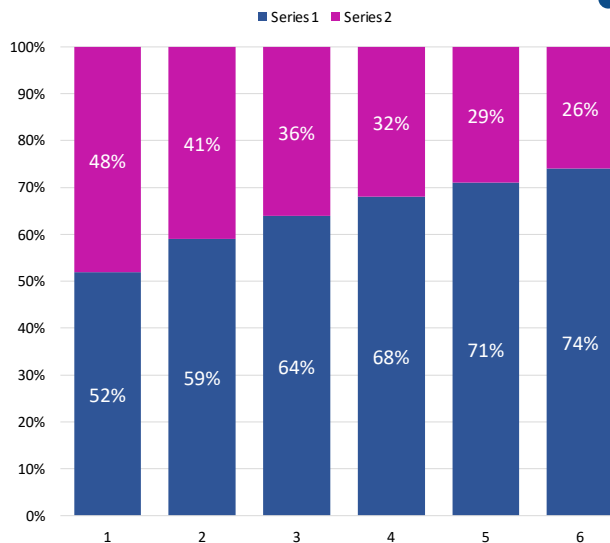
The Leaky Pipelines In Economics  
Share of Women in Economics, 2020



## The Broken Rung and the Great Breakup

Share of Men and Women in Corporate Role, 2022

- Women are significantly underrepresented in leadership.
- A broken rung at the first step up to manager is holding women back.
- For every 100 men who are promoted from entry-level roles to manager positions, only 87 women are promoted
- The Great Breakup
  - **New Pipeline Problem**
  - More women leaders are leaving their companies



## Sorting

- **Sorting happens:**

- With the decision to go to college.
- With the election of a major.
- With the choice of an occupation.

- **Women tend to:**

- Go to college **more** than men.
- Select majors with **lower** expected wages.
  - Though convergence **WAS** happening.
- Within a major, select occupations with **lower** wages.
  - Though convergence **IS** happening.



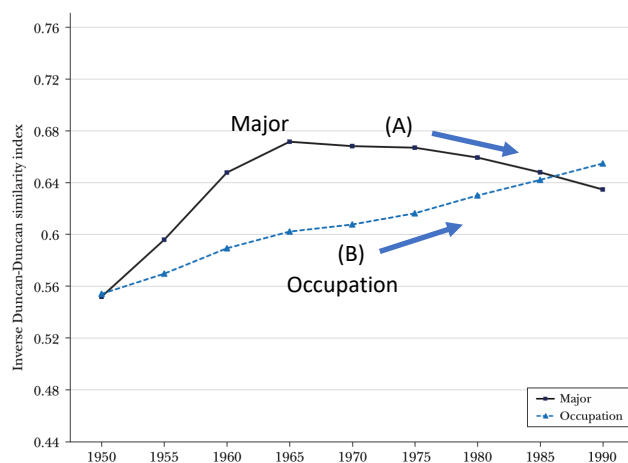
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## Occupation Convergence, Less So Majors

Gender Similarity in Major and Occupation by Cohort



Values close to 1 imply parity.

Less than 1

- women's choices correspond to lower wages

Greater than 1

- women's choices correspond to higher wages

(A) Women are increasingly choosing **majors** that **pay less than** the majors chosen by men.

(B) Women are increasingly choosing **occupations** that **pay as well as** the occupations chosen by men.



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Source: *College Majors, Occupations, and the Gender Wage Gap*, Sloane, Hurst, and Black, JEP, Fall 2021.

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## Solutions to the gender wage gap issue

- **Debiasing the labor market**
  - Diversity training for supervisor and manager
  - Changing the organizational culture
  - Gender blind hiring/evaluation procedures
- **Training women to be more competitive and removing unconscious bias**
- **Legislative actions by federal and state governments**



## The system not individual bias is the culprit

- **The “system” is characterized by:**
  - Decisions made by ordinary couples in terms of being on-call at work or at home
  - Cost of time flexibility at work
- **The higher the cost of temporal flexibility, the higher is the likelihood of a couple to forego equity in favor of higher family income.**
- **Substitution among workers needs to be encouraged in occupations with high gender pay gaps**



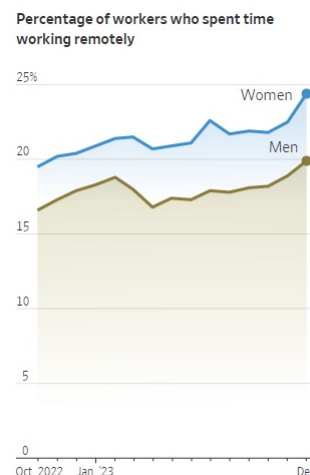
## Private Sector is Responding... Slowly

- With more women entering the profession
- More men wanting equitable relationships with their life partners
- Costly job training
- Valuable client-employee relationships formed by the women in early years

Firms have more incentive to retain the female employees now than ever.

## Time Demand Tradeoffs and COVID-19

- COVID-19 accelerated trends towards more workplace flexibility.
- Remote work may have lasting beneficial impact on all workers, including women.
- But there may also be losses.
  - WFH = Working from Home or Working from Hell?
  - Promotions
- Women's attachment to labor market at risk due to:
  - Difficulty in obtaining affordable, dependable childcare



Source: Labor Department  
Erik Brynjildsen/THE WALL STREET JOURNAL

## What Have We Learned?

- **The gap is significant and seemingly stubborn.**
  - Some, but not very much progress in the last 20 years.
- **Discrimination clearly plays a role, but we can't identify how much.**
  - In wage setting, in people's choices, as a result of market structures.
- **Gender roles in child rearing play an enormous role.**
- **Government policy can help, by:**
  - Implementing policies that reduce the child-bearing penalty for women.
    - Access to childcare, for instance.
  - Influencing the structure of labor markets, the workplace, hiring practices, and job flexibility.
  - Generally, address the hours/compensation relationship.



Thank you!

## Any Questions?

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