

Unraveling the Gender Wage Gap: The Influence of Monopsony Power & Labor Market Concentration

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Unraveling the Gender Wage Gap: The Influence of Monopsony Power and Labor Market Concentration

- ① Does monopsony power play a role in explaining the gender wage gap?
- ② Does the share of monopsony power that can be explained by the model vary along the wage distribution?

- Introduction
- Theory
- Data & Methodology
- Descriptive Results
- Multivariate Results
- Conclusion

Motivation

- ① Does monopsony power play a role in explaining the gender wage gap?
 - ② Does the share of monopsony power that can be explained by the model vary along the wage distribution?
- I'm not trying to explain lower wages per se, I'm trying to explain how monopsony power explains *pay differences* between women and men
 - monopsony power through occupational lock-in
 - monopsony power through frictions, immobility, and high costs

Approach

- Combination of methods
 - Framework and methodology: Blau & Kahn (2017)
 - Data preparation and variable grouping: Foster et al. (2020)
 - Labor market concentration via HHI: Watson (2014)
- So far, research focuses on labor supply elasticities
(Barth & Dale-Olsen, 2009; Sulis, 2011; Webber, 2016)
- I proxy monopsony power with labor market concentration
→ **Herfindahl-Hirschman indices for occupational groups by industry concentration**

Theoretical Framework

Neoclassical explanation of wage differentials

- Compensating wage differentials
- Taste discrimination & statistical discrimination
- Human capital theory

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Neoclassical explanation of wage differentials

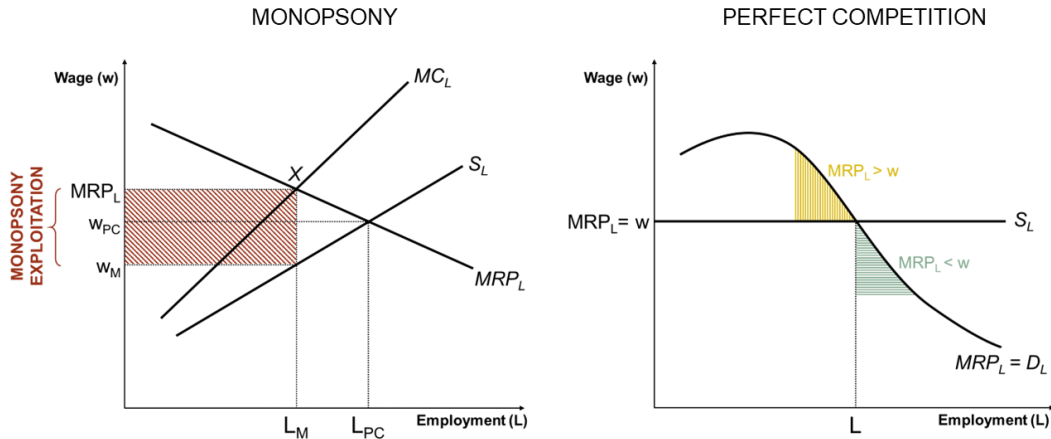
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More realistic approach: Monopsony model

- Introduced by Joan Robinson (1933): *The Economics of Imperfect Competition*
- Wage determination is influenced by factors other than productivity
- Captures power imbalances between employers and workers

The Monopsony Model vs. Perfect Competition



Notes: Author's depiction based on Manning (2003, Figure 2.1) and Kaufman & Hotchkiss (2003, Figure 6.1).

Data and Methodology I

Data

- American Community Survey (ACS) data for 2019 → 991,849 observations

Methodology

- Weighted average HHI for 316 occupational groups and 15 industries:

$$HHI_i = \sum_{n=1}^{15} occ_{i,n}^2 = occ_{i,1}^2 + occ_{i,2}^2 + occ_{i,3}^2 + occ_{i,4}^2 + \dots + occ_{i,15}^2 \quad (1)$$

- The higher the HHI, the more the occupational group is concentrated in fewer industries
- A higher HHI implies more concentration and thus more monopsony power
→ occupational lock-in; frictions, immobility, and high costs when changing jobs

Methodology II

- Mean values for each of the 22 major occupational groups to avoid outliers:

$$HHI_o = \frac{\sum_{i=1}^n HHI_i}{n} \quad (2)$$

- OLS regressions on hourly wages for women and men respectively
- Oaxaca-Blinder decomposition of the gender wage gap:

$$\ln(\bar{Y}_m) - \ln(\bar{Y}_w) = \underbrace{\beta_m(\bar{X}_m - \bar{X}_w) + \gamma_m(\ln(\overline{HHI}_m) - \ln(\overline{HHI}_w))}_{\text{explained}} + \underbrace{\bar{X}_w(\beta_m - \beta_f) + \ln(\overline{HHI}_w)(\gamma_m - \gamma_w)}_{\text{unexplained}} \quad (3)$$

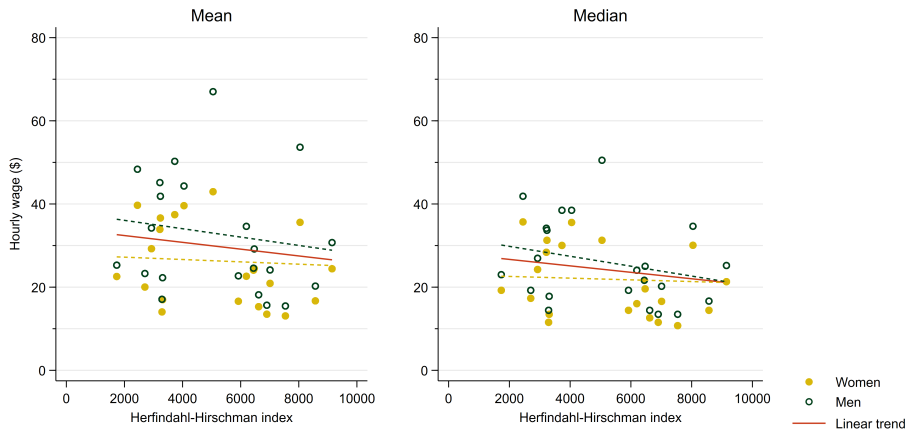
Mean Gender Wage Gaps by Hourly Wage Percentiles, 2019

Hourly wage percentile	WOMEN		MEN		Wage gap (in %)	HHI gap (in %)
	Hourly wage (in \$)	HHI	Hourly wage (in \$)	HHI		
p10	7.01	5,729	8.07	5,061	13.1	13.2
p20	10.83	5,490	12.93	4,964	16.3	10.6
p30	13.54	5,316	15.97	4,867	15.3	9.2
p40	15.88	5,235	18.81	4,833	15.6	8.3
p50	18.47	5,192	22.53	4,804	18.0	8.1
p60	21.59	5,263	26.95	4,689	19.9	12.3
p70	25.66	5,340	31.83	4,622	19.4	15.5
p80	31.30	5,334	38.76	4,512	19.2	18.2
p90	40.00	5,340	50.60	4,363	21.0	22.4
p100	75.14	5,115	103.76	4,408	27.6	16.0
Mean	25.84	5,338	32.67	4,719	20.9	13.1

Source: ACS 2019; author's calculations.

Notes: The sample includes men and women ages 25–64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Numbers not further specified show shares in percentages. Weights taken into account.

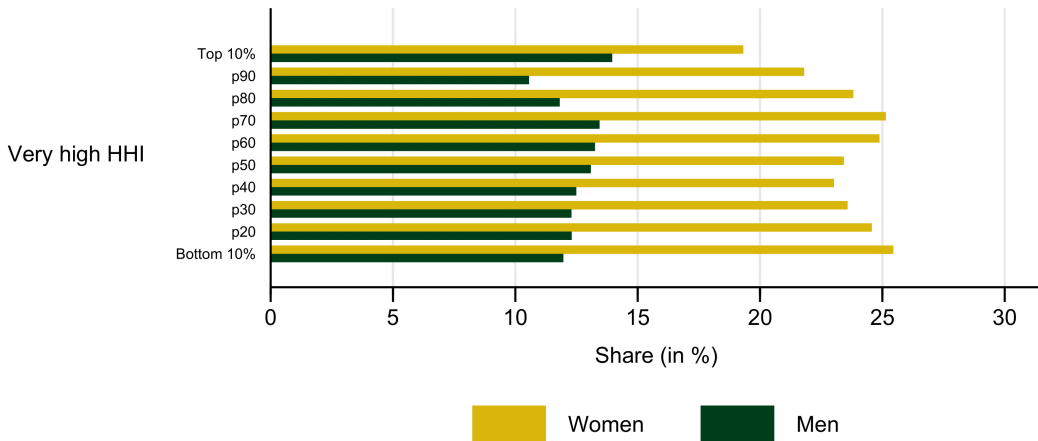
Mean (left) and median (right) hourly wages by HHI, 2019



Source: ACS 2019; author's calculations.

Notes: The Herfindahl-Hirschman index is depicted for 22 major occupation groups. The sample includes women and men ages 25–64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Weights taken into account.

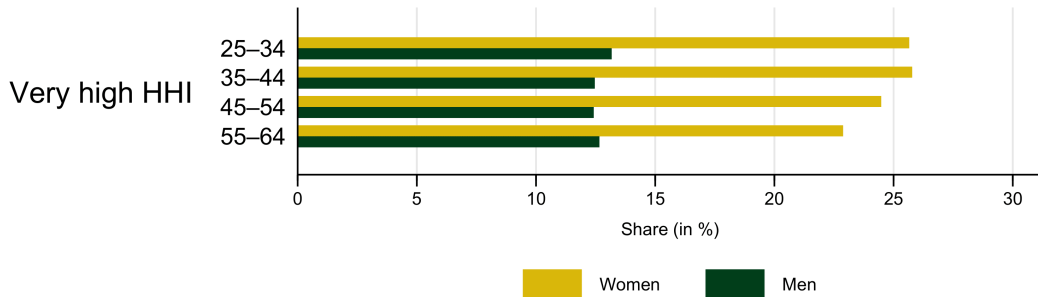
Exposure to labor market concentration by gender and wage deciles, 2019



Source: ACS 2019; author's calculations.

Notes: The Herfindahl-Hirschman index is divided into five categories based on its distribution. The sample includes women and men ages 25–64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Weights taken into account.

Exposure to labor market concentration by gender and age, 2019



Source: ACS 2019; author's calculations.

Notes: The Herfindahl-Hirschman index is divided into five categories based on its distribution. The sample includes women and men ages 25-64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Weights taken into account.

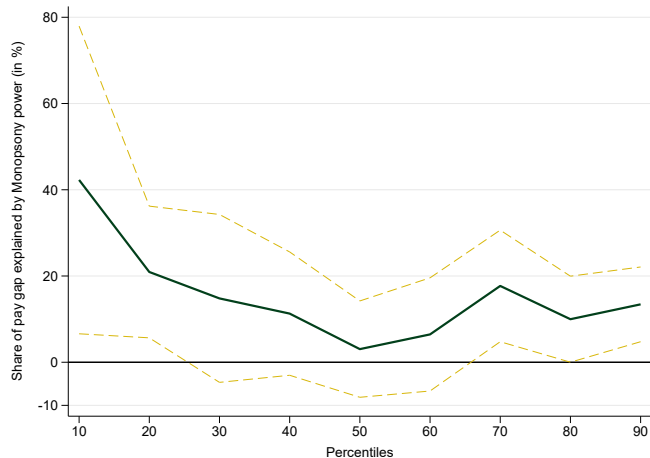
Decomposition of the Gender Wage Gap

			(1)			(2)		
	log points	% of gap explained		log points	% of gap explained	log points	% of gap explained	
Total explained	0.059*** (0.002)	30.2	Age	-0.008*** (0.001)	-4.1	-0.008*** (0.001)	-4.1	
Total unexplained	0.137*** (0.002)	69.9	Race/ethnicity	0.002*** (0.000)	0.9	0.002*** (0.000)	0.9	
Total pay gap	0.196*** (0.002)	100.0	Education	-0.021*** (0.001)	-10.9	-0.021*** (0.001)	-10.9	
			Metropolitan status	0.000 (0.000)	0.0	0.000 (0.000)	0.0	
			Region	0.001*** (0.000)	0.6	0.001*** (0.000)	0.6	
			Potential experience	0.002*** (0.000)	0.8	0.002*** (0.000)	0.8	
			Weekly hours	0.007*** (0.001)	3.6	0.007*** (0.001)	3.6	
			Industry	0.043*** (0.001)	22.0	0.043*** (0.001)	22.0	
			Occupation	0.034*** (0.002)	17.2	0.009 (0.010)	4.4	
			Monopsony			0.025*** (0.010)	12.8	
N Men (Group 1)	516,287							
N Women (Group 2)	475,562							

Source: ACS 2019; author's calculations.

Notes: The sample includes men and women ages 25–64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Weights taken into account. Standard errors in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

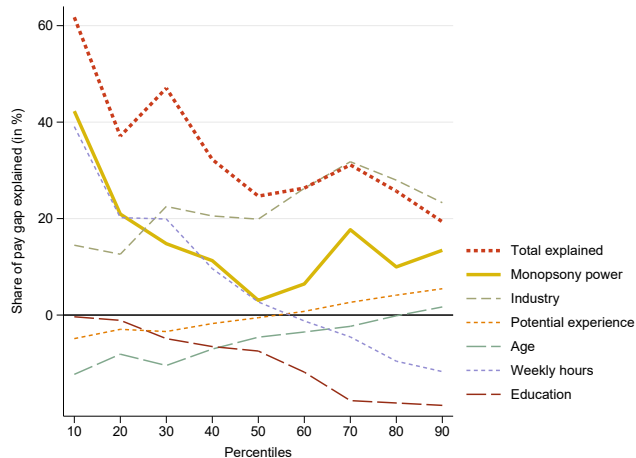
Share of GWG explained by Monopsony Power, by Wage Percentiles, 2019



Source: ACS 2019; author's calculations.

Notes: The yellow dashed lines outline the 90% confidence interval. The sample includes men and women ages 25–64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Weights taken into account.

Share of GWG explained, by components and wage percentiles, 2019



Source: ACS 2019; author's calculations.

Notes: The yellow dashed lines outline the 90% confidence interval. The sample includes men and women ages 25–64 working civilian wage and salary jobs for at least 48 weeks during the preceding year. Weights taken into account.

Conclusion

- Labor market concentration and thus monopsony power is a key component in explaining the gender wage gap among the bottom 20% of the distribution
 - 42% of GWG in the first decile
 - 21% of GWG in the second decile
- Women are more vulnerable to exploitation through monopsony power along the wage distribution
 - Women often train for certain jobs that limit them to specific industries
- Emphasis on labor market concentration provides a different perspective related to *employers'* rather than *workers'* characteristics
- Monopsonists exploit this situation and pay women particularly low wages

What needs to be done?

- Strengthen workers' bargaining power → increase unionization rates
- Equal pay legislation
- Increase minimum wages
- Better pay in education & healthcare sectors
- More equal distribution of unpaid care responsibilities

Thank you!

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