

Equilibrium Wage-Setting and the Life-Cycle Gender Pay Gap

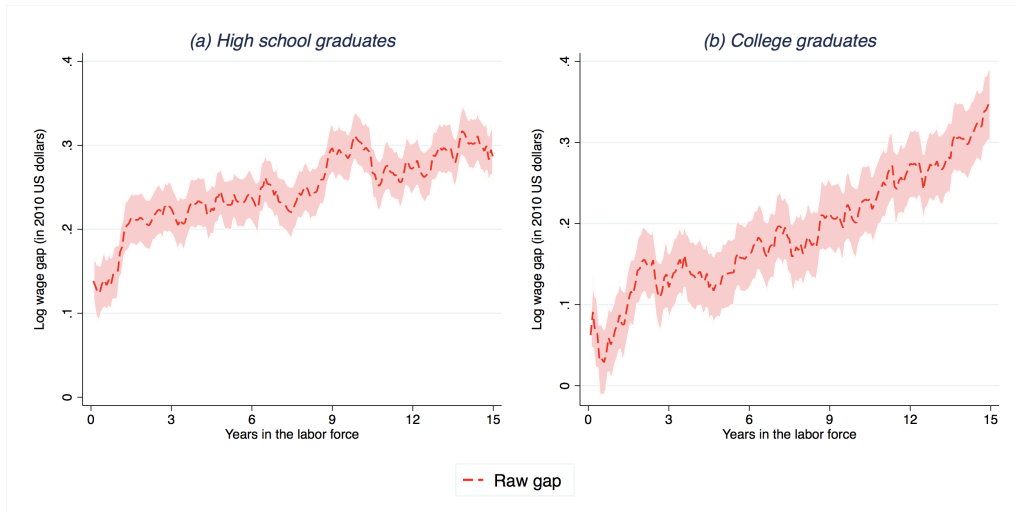
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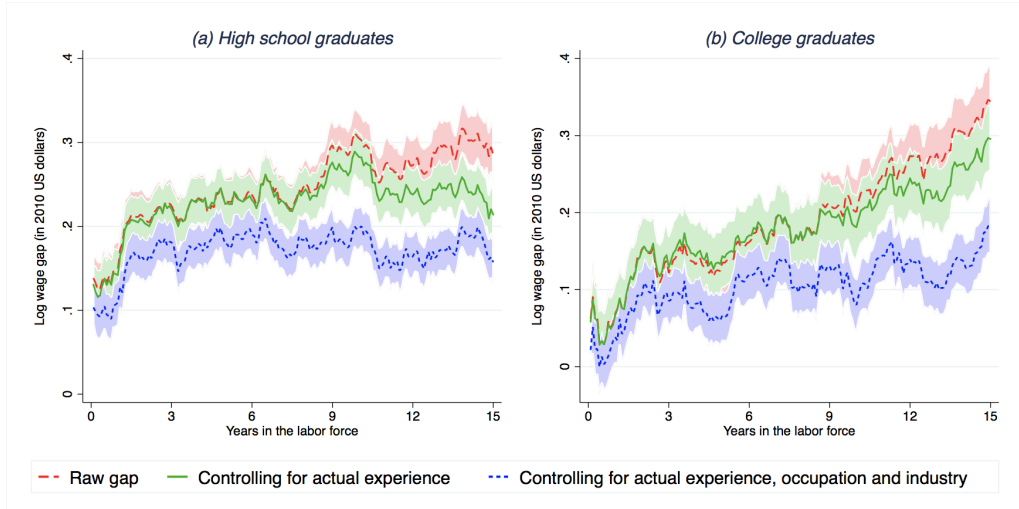
The Gender Wage Gap over the Life-Cycle

Male log wages less female log wages over the life-cycle



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Contribution

- Most literature on the gender gap focuses on **workers' differences**
- Few papers study the role of **different wages paid by different firms**
- Both workers and firms are integral parts of the labor market and should be studied jointly

This paper

- Builds a dynamic equilibrium search model to study both workers' and firms' decisions,
- offering a framework to analyze this **firm wage-setting behavior** in equilibrium

Data

- Longitudinal data over 35 years of American men and women aged 14 to 22 in 1979 (NLSY79)
 - Contains weekly labor market histories and monthly fertility for men and women
- We focus on the first 15 years in the labor force: years 1979-2006
- Restrict sample to non-Hispanic Whites whose first child is born after leaving full-time education
- Two education groups
 - HSG: Highschool graduates (highest grade completed from 12 to 15 years of education)
 - CG+: College graduates and above (highest grade completed from 16 to 20 years)

Differences between men and women in the first 15 years of working life

	High-School		College	
	Men	Women	Men	Women
Time spent in parental leave (months)				
Same job afterward	0.3 (0.034)	2 (0.102)	0.1 (0.008)	1.9 (0.224)
Different job afterward	4.5 (0.488)	17.0 (1.067)	3.7 (0.725)	14.8 (2.000)
Transition rates outside parental leave				
Job-finding rate	0.222	0.168	0.220	0.198
Separation rate	0.034	0.036	0.015	0.025

Source: Authors' calculations from NLSY79

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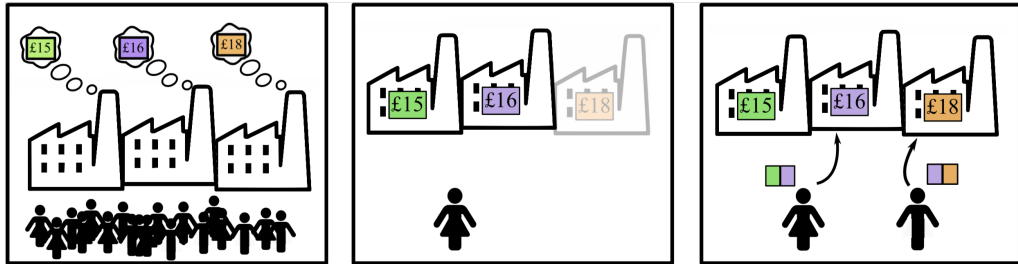
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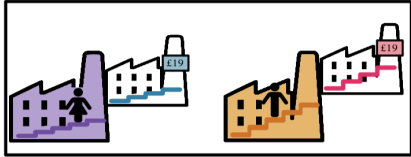
- High school educated women have more difficulty finding a new job
- College educated women quit or are fired more often than men

Features of the Model

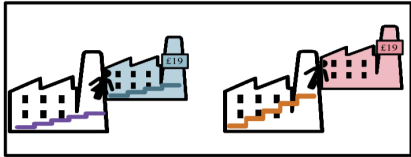


- Firms set wages to maximize their profit given their productivity and average workers' turnover
- Workers do not have full information about the firms in the labor market
- Workers take the best offer among those available to them
- Workers earned wages at the firm equal *firm's wage rate* \times *worker's human capital*

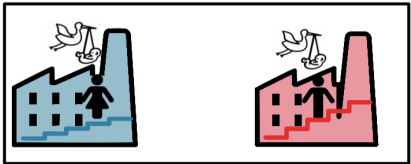
Features of the Model: Men and Women climb the HC staircase on the job



- Workers increase their human capital while employed
- The speed of their HC increases may differ by gender
- We determine the gender-specific steepness in the data

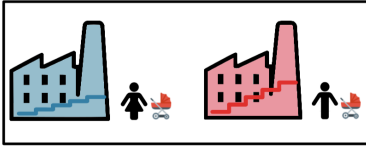


- Workers can get job offers while employed
- Even happy workers will switch jobs for a higher pay

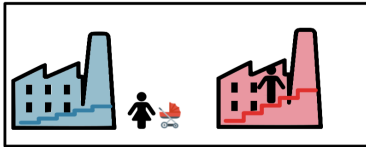


- Both men and women may unexpectedly have a baby at any point in their careers

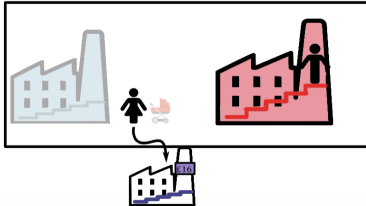
Features of the Model: Parental leave in our model



- Upon childbirth, all workers go into parental leave
- While on leave, workers cannot get job offers



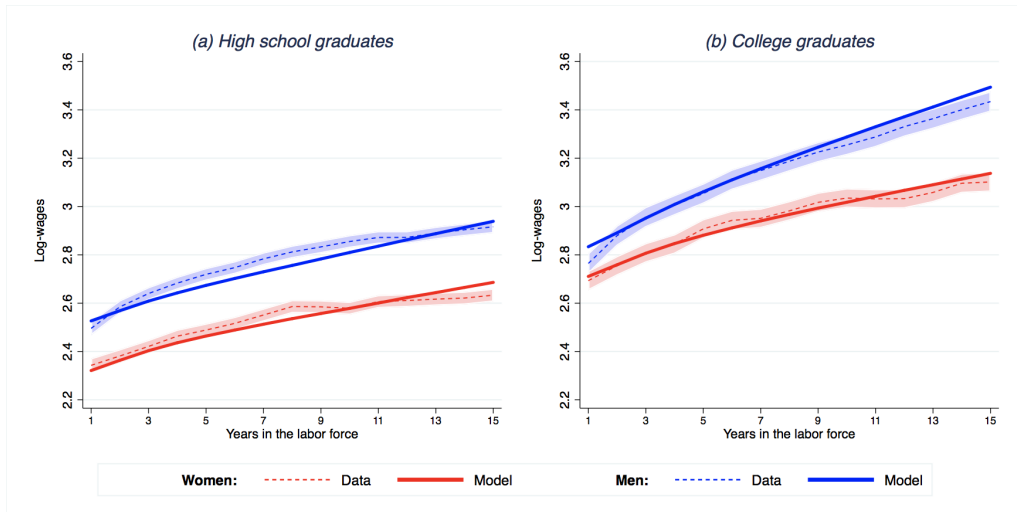
- When the worker is “ready,” she can rejoin the workforce
- Some workers are able to rejoin their previous job



- Some have to rejoin the workforce in unemployment

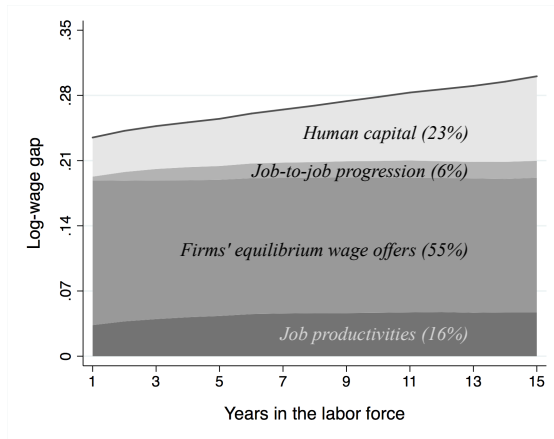
Model fit

Fit of the log-wage profile by years in the labor force

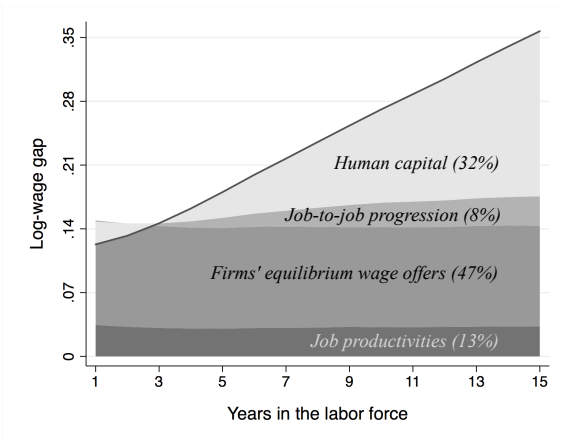


Decomposing the gender wage gap

- The model allows us to decompose the gap into 4 different components



(a) High-School



(b) College

Policy implications

- Improving stability of women's employment has the largest effect in narrowing the gender gap
- For example, the gap can decrease by up to...
 - **HS**: 25% with policies that help unemployed women find jobs at the same rate as men
 - **CG**: 50% if more job flexibility allows women to keep employed to the same extent as men
 - **HS+CG**: 19% if more childcare support reduces the fertility-related career interruptions' gap
- Notably, these reductions are mostly driven by the **demand side**:
 - firms choose higher wage rates in response to the changes in women's expected labor market behavior

Conclusion

- Our innovation in studying the gender gap centers on
 - modeling how firms' wage offers respond to the expectations about women's future work plans
- We show that the pattern of firms' wage offers is a major source of the gender wage gap
- Our counterfactual exercises show that policies improving the stability of women's employment reduce the gap throughout life-cycle
 - This occurs because the pattern of firms' wage offers follows their expectations about how women behave in the presence of policies like subsidized child care

Thank you