

Job Search and the Gender Wage Gap¹

Extended Abstract for the SED

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A recent body of literature argues that at least some part of the gender wage gap may be due to differences in the bargaining and negotiation behavior of men and women. If women are less likely to bargain over wages, they will take home a lower fraction of their match surplus. This would contribute to the gender wage differentials observed in the data. Alternatively, wage differentials could be due to differences in sorting into different types of jobs or firms. A well-established literature finds that a considerable fraction of the gender wage gap is due to the occupational choices of men and women (see, for example, Groshen, 1991; Blau and Kahn, 2000; among others). Song, Price, Guvenen, Bloom, von Wachter (2016) find that pay differences between firms are an important source of earnings inequality. Both lines of research suggest that systematic differences in sorting by gender can lead to a gender wage gap. Recently, Card, Cartoso, and Klein (2014) quantified these two separate channels in the Portuguese data: the first one is the sorting channel—the possibility that women are less likely to work for higher-wage firms.² The other is the bargaining channel—the possibility that women are less aggressive in bargaining than men. The sorting channel can work through occupational choice as well. Similarly, bargaining is only one aspect of the search process. More broadly, differences in search behavior between men and women, including differences in bargaining, search effort, and search efficiency, may be a key contributor to the gender wage gap. Both the sorting channel and the job search process are closely linked to a worker's ability to change jobs.

In this paper, we focus on gender differences in the job search and job-finding process. Using a unique new household survey, we study the relationship between job search behavior and outcomes by gender. We document new facts on their differences and quantify their effects on the gender wage gap. We find that a large gap in the wages of men and women exist not only in their current wages, but also in their wages at the time of their hiring and the wages of both recently-offered and recently accepted jobs. Gender differences in observable characteristics, including demographics, the occupation of the job in question, and firm characteristics, can account for about half of the wage gap of the current job and about two-thirds of the gap of job offers.

¹The views expressed in this paper are solely the responsibility of the authors' and should not be interpreted as reflecting views of the Federal Reserve Bank of Chicago, Federal Reserve Bank of New York, or any other person associated with the Federal Reserve System. All errors are ours.

²Most of the papers in the literature on the sorting across firms use data from European countries such as Italy, Spain and Portugal.

1 Data

Our data are an annual supplement to the Survey of Consumer Expectations (SCE), administered monthly by the Federal Reserve Bank of New York. The SCE is a nationally-representative survey of roughly 1,300 individuals that asks respondents about their expectations about various aspects of the economy. We designed the supplement ourselves and first administered it in October 2013. We have administered it annually in 2014, 2015, and 2016 since then, and present results for a sample that pools all three years of data together. Our supplement asks a broad range of questions on employment status, job search behavior, and job search outcomes. Demographic data is also available for respondents through the monthly portion of the SCE survey.

The data ask a variety of questions that are tailored to individuals' employment status and job search behavior. For the employed, including the self-employed, the survey asks questions about their wages, hours, benefits, and the type of work that they do, including questions on the characteristics of their workplace. For the non-employed, the survey asks a range of questions about their work history, including detailed questions on their most recent employment spell. The survey also asks questions related to the type of non-employment, including those related to retirement, school enrollment status, and any temporary layoff. Regardless of employment status, the survey asks all individuals if they have searched for work within the last four weeks, and if they had not searched, whether or not they would accept a job if one was offered to them. Among the employed, the survey distinguishes between those searching for new work and those searching for a job in addition to their current one. For individuals who have searched or would at least be willing to accept a new job if offered, the survey asks a series of questions relating to their job search (if any), including the reasons for their decision to (not) search. It then asks an exhaustive set of questions on individuals' current and previous employment situations, search behavior, job offers, accepted offers, and reservation wages.

2 Wage Outcomes

We begin with evidence on gender differences in wages of employed workers. Table 1 reports the wages of currently employed workers in our data. Unconditionally, there is a 31 log point difference between the hourly wages of men and women. When we control for observable characteristics, which include demographics, occupation, and firm characteristics, the gap falls to 15 log points. We can also control for the prior work history of the employed. We do so using the (log) wages and hours of their preceding job as well as information on their labor market history over the last five years. The latter includes measures of the fractions of the last five years spent employed, unemployed, in school, or otherwise out of the labor force. Controlling for work history reduces the gap an additional 11 log points, leaving only a 4 log point difference unexplained. We obtain similar results if we instead look at the starting

	Male	Female	log(F/M)
log current wage	3.20 (0.01)	2.89 (0.03)	0.31
log current wage conditional on observables	3.11 (0.02)	2.96 (0.02)	0.15
log current wage conditional on observables, previous job, worker history	3.07 (0.02)	3.03 (0.02)	0.04
# of observations	680	573	

Table 1: Real wages on the current job by gender.

	Male	Female	log(F/M)
log offer wage	2.89 (0.07)	2.68 (0.08)	0.21
log offer wage conditional on observables	2.82 (0.05)	2.75 (0.03)	0.07
log offer wage conditional on observables, previous job, worker history	2.78 (0.04)	2.71 (0.03)	0.06
# of observations	315	339	

Table 2: Characteristics of the best offer by gender.

wage at the time of hiring. These estimates are broadly in line with Blau and Kahn (2016) who find that mean wage of females was around 80 percent of mean wage of males in 2010. When they control for various characteristics of workers and jobs, they find that women make around 92 percent of the average male wage.

Table 2 shows that we obtain similar results for the wages of job offers and accepted job offers. The results are for all non-self-employed individuals who received at least one offer within the six months prior to the survey. Unconditionally, the wage offers of women are 21 log points lower than the wage offers of men. Controlling for observable characteristics as before reduces this difference to 7 log points. Controlling for work history does not reduce the gap any further.

Table 3 shows that the unconditional wage gap between the accepted job offers is significantly larger 32 log points. Observable characteristics account for two-thirds of this gap, reducing it to 11 log points. Controlling for work history reduces the gap somewhat further, to 5 log points. We also find that women are less likely to bargain over the offered wages and receive counteroffers.

	Male	Female	log(F/M)
log accepted wage	2.91 (0.06)	2.59 (0.04)	0.32
log accepted wage conditional on observables	2.87 (0.03)	2.76 (0.04)	0.11
log accepted wage conditional on observables, previous job, worker history	2.79 (0.04)	2.74 (0.05)	0.05
% with no benefits	34.1 (4.3)	55.0 (4.2)	—
% from unsolicited contact	12.8 (3, 1)	12.7 (2.8)	—
% involved bargaining	30.2 (4.2)	24.3 (3.6)	—
% of offers with some counteroffers	17.8 (4.3)	11.2 (3.3)	—
# of observations	120	140	

Table 3: Characteristics of the accepted offer by gender.

3 Search Behavior

Next, we examine evidence on the basic characteristics of the job search behavior of men and women, and the resulting outcomes. Table 4 reports the incidence of job search by labor force status and by gender. By construction, all unemployed search. Among the employed, women are more likely to have looked for new work in the last four weeks, with over 25 percent actively searching, compared to 21 percent of employed men. In contrast, among nonparticipants, only 1.4 percent of women and 3.1 percent of men reported searching.

Table 5 reports mean hours and applications, conditional on search by labor force status and gender. There are not clear differences though employed women seem to search harder than employed men in terms of time spent searching but not in the number of job applications sent. Unemployed women spend less time searching and send fewer applications than unemployed men. Finally, Table 6 reports the mean number of applications, contacts, and offers within the four weeks prior to the survey by gender, conditional on search. Men send somewhat more job applications, but receive more employer contacts per application sent. Furthermore, they receive almost triple the amount of unsolicited job offers. The latter leads men to have a somewhat higher job offer rate than women. The evidence strongly suggests that, despite similar search intensity between men and women, and a somewhat higher incidence of on-the-job search among women, men face better job search outcomes partly because of stronger informal job search networks.

	<i>E</i>		<i>U</i>		<i>N</i>	
	Male	Female	Male	Female	Male	Female
% active search, last 4 weeks	21.4 (1.2)	25.4 (1.3)	100.0 (0.0)	99.2 (0.9)	3.1 (1.3)	1.4 (0.8)
% with positive search time, last 7 days	17.7 (1.1)	23.5 (1.3)	81.3 (4.8)	87.5 (3.3)	2.9 (1.2)	2.4 (1.0)
% applying to ≥ 1 vacancy, last 4 weeks	18.0 (1.1)	29.7 (1.3)	92.4 (3.3)	92.3 (2.7)	3.1 (1.3)	1.0 (0.7)
# of observations	1,222	1,080	66	99	192	238

Table 4: Extensive margin of job search by labor force status and gender.

Males					
	<i>E</i>			<i>U</i>	<i>N</i>
	All	Looking	Not looking	All	All
Hours searching last 7 days	0.99 (0.10)	3.81 (0.35)	0.04 (0.01)	10.05 (1.26)	0.07 (0.04)
Applications sent last 4 weeks	1.30 (0.22)	5.16 (0.85)	0 (—)	8.72 (2.34)	0.08 (0.06)
# of observations	1,053	261	799	66	124
Females					
	<i>E</i>			<i>U</i>	<i>N</i>
	All	Looking	Not looking	All	All
Hours searching last 7 days	1.38 (0.14)	4.76 (0.46)	0.06 (0.01)	8.40 (0.74)	0.04 (0.02)
Applications sent last 4 weeks	1.14 (0.15)	4.05 (0.50)	0 (—)	8.08 (1.23)	0.03 (0.02)
# of observations	975	261	714	165	238

Table 5: Intensive margin of job search by labor force status and gender.

	Male	Female
Mean application sent last 4 weeks	5.92 (0.82)	5.20 (0.54)
Mean contacts	2.32 (0.43)	1.18 (0.14)
Mean unsolicited offers	0.075 (0.016)	0.028 (0.009)
Mean offers	0.44 (0.06)	0.39 (0.04)
# of observations	325	363

Table 6: Mean applications, contacts and offers, last 4 weeks by gender—conditional on search.

4 Concluding Remarks

We document new facts on the role of job search and matching process in accounting for the gender wage gap. Our findings suggest that a large gap in the wages of men and women exist not only in their current wages, but also in their wages at the time of their hiring and the wages of both recently-offered and recently accepted jobs. Gender differences observable characteristics, including demographics, the occupation of the job in question, and firm characteristics, can account for about half of the wage gap of the current job and about two-thirds of the pay gap of job offers.

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