

2010 ASSA AEA Annual Meeting - CSWEP Non-Gender Sessions (Personnel Economics):

Risk and Retention in the Workplace: The Effect of Gender and Incentives

Chair: Linda Bell (Haverford College)

Discussants: Lise Vesterlund (University of Pittsburgh), John Bishop (Cornell University) and Judy Hellerstein (University of Maryland)

Kerry Pannell (Depauw University) and Dorothea Herreiner (Loyola Marymount University) *Women's Labor Choices in Promotion Tournaments: Experimental Evidence*

One explanation proposed for the gender wage gap is that women are more risk-averse than men, and that this phenomenon may lead to career choices that limit women's earning capacity. Although research results are mixed on the topic of job promotions and women's pay, there is also some empirical evidence that women are less likely to be in jobs where they can be promoted (Groot and van den Brink, 1996), may wait longer to receive promotions (Maume, 1999) and are less likely to be promoted than men are (Blau and DeVaro, 2007). On the other hand, Booth, Francesconi and Frank (2003) find that women have an equal probability of being promoted, but women have lower wages than men because they remain at the bottom of the pay grade after their promotion. In their model (based on Lazear and Rosen, 1990), workers put effort into a human capital investment, and then are eligible for promotion and a wage increase based on the fact that their firm may match outside offers. The wage gap is then driven by differences in outside options of men and women, including non-market alternatives. In all of these models, women's preferences for risk and job choices interact beneath the surface in ways that may hide underlying effects. These issues can be further investigated in an experimental setting.

Tournament models can be used to simulate an internal labor market promotion situation where risk preferences and effort choices may differ by gender. Research by Niederle and Vesterlund (2007) has shown that women are less eager to participate in tournament-style competitions in an experimental setting. Does women's hesitation to compete in promotion contests have further effects on women's choices that may contribute to outcomes observed in women's labor market performance? In this paper, we exploit the structure of a tournament model with both an effort choice and risk choice to try to tease out the potential impacts of women's choices in promotion settings. We hypothesize that effort choices in the first stage of the game will depend on risk options available in the second stage. We run these experiments in sex-segregated competitions and in mixed competitions to distinguish between gender-dependent risk aversion contributions to first stage effort choice and the general tendency of women to shy away from competition.

Colleen Flaherty Manchester (Carlson School of Management, University of Minnesota) *Investment in General Human Capital and Turnover Intention*

Cynthia Bansak (St. Lawrence University), Mary Graham (Clarkson University) and Allan Zebedee (Clarkson University) *The Effects of Gender Composition of Top Management on the Economic Fallout*

Economists have documented gender differences in the financial decision-making process, in particular regarding risk-taking. For example, a number of studies have found that women choose more conservative investments when allocating their own retirement savings across different financial asset classes (Hinz, McCarthy, and Turner 1997; Bajtelsmit and VanDerhei 1997; Sunden and Surette 1998; Balkin 2000)). Similarly, others report women are more risk averse than their male counterparts when choosing risky assets to hold as a proportion of household wealth (Jianakoplos and Bernasek 1998). One possible explanation, given by Barber and Odean (2001), is that men are overconfident about their ability to make financial decisions and take on excess risk. Regarding decisions in the professional environment, the results are less clear cut. Atkinson, Baird and Frye (2003) examine the performance and investment behavior of female mutual fund managers and find that male and female managers appear similar in terms of fund performance, risk, and other fund characteristics. However, they find evidence

that gender may affect the behavior of investors. Specifically, they find significantly lower net asset flows into mutual funds managed by women compared with funds managed by men, suggesting that preconceptions of differences by gender may matter. In this paper, we examine whether there is a link between firm performance and gender during the recent economic crisis. If women are truly less risk averse, this predisposition may have been especially apparent during the recent financial meltdown. Using data from the U.S. Equal Employment Opportunity Commission (EEOC), CRSP and Compustat, we examine the relationship between the gender composition of top management teams and company performance among financial institutions during the financial crisis of 2008. We hypothesize that the gender composition of the management team affects the underlying risks taken at the firm level and therefore firm performance. As part of our study we will examine various managerial theories of gender composition to assess whether the gender composition effects are linear, including the identification of any “tipping points” at which the nature of gender composition effects changes (Tolbert, Graham, and Andrews, 1999). The EEOC data (the EEO-1 survey) provides us with company and establishment-level information from employers on staffing patterns by gender, race, and ethnicity. Private-sector employers with 100 or more employees, or federal contractors with 50 employees and with federal contracts of at least \$50,000 per year are required to complete an annual EEO-1 form.¹ Our measure of female management will be divided into the share in mid-level management positions and the share in senior level positions.² We relate this gender share as an explanatory variable to the various metrics of firm performance drawn from CRSP and Compustat. Specifically, CRSP provides us with stock returns and the resulting volatility of returns while Compustat provides us with financial accounting data including profitability measures such as return on equity and return on assets in addition to short-term and long-term solvency measures. Another interesting variable to examine will include the allocation of the Troubled Asset Relief Program (TARP) funds. The financial crisis of 2008 has been partially attributed to excessive risk taken by financial institutions. If women are indeed more risk averse than their male counterparts, financial firms with significant female leadership might have avoided these excessive risks and resulted in superior performance for their shareholders. More importantly, a potential implication of our study is that a balanced gender composition of management may lead to a reduction in agency costs of equity.

1 By way of a formal confidentiality agreement with the EEOC, it is possible for researchers to get access to this data.

2 Beginning in 2007, the EEO-1 form requires companies to break into separate categories first/mid-level managers (“those who direct implementation or operations within specific parameters set by Executive/Senior Level Officials and Managers; oversee day-to-day operations”) and executive/senior level managers (those who “plan, direct and formulate policy, set

Empirical Issues in Personnel Economics

Chair: Maria Guadalupe (Columbia University)

Discussants: Maria Guadalupe (Columbia University), Casey Ichniowski (Columbia University) and Lan Shi (University of Washington)

Lan Shi and Christina Tapia (University of Washington) *The Disciplining Effect of Concern for Referrals for Better Informed Agents: Evidence from Real Estate Transactions*

The standard pay method for real estate agents in the U.S. is 3 percent of the selling price. Under such a contract, the agent has incentives to make a quick sale. Imagine the following: When an offer of \$395,000 comes in for the \$400,000 house, the agent’s private signal tells him that he could get a better offer by waiting a bit longer. But since the agent would get only 3 percent of the additional \$5,000 with a full-price offer, he would recommend to the seller to take this lower offer. The agent’s actions result in a shorter stay on the market and a lower price than the first-best level. Moreover, if the agent knows that he can make a quick sale by cutting the price, he would not put forward the first-best level of effort. In real-life the interaction between the client and the agent is not a one-shot interaction; she might need to sell (or buy) another house, or more realistically, might bring referrals by recommending him to her acquaintances. Over time the client is able to get a clearer picture of whether her house was sold at a good price and infer from that her agent’s contribution. This paper empirically tests the prediction that the prospect of future referrals gives the agent incentives to i) exert more effort and ii) resist pushing for a “quick sale,” by comparing sellers who are moving out of state and thus will likely not provide

referrals with sellers who remain in the state and thus might bring referrals. We use Multiple Listing Service (MLS) data for all residential homes sold between 4/25/2004 through 5/29/2008 in King County, Washington. The data contain detailed characteristics of each home. Each transaction has an original listing price, and selling price, as well as the number of days on market. In addition, each transaction lists the seller's name and new location, indicating whether the seller will stay in the same state or move to another state. We use a hedonic pricing model with natural log of selling price as the dependent variable and we examine days on market as well. We find that compared with staying-in-state sellers, moving-out-of-state seller' residences take over 20 percent more days to sell, yet without any price benefits, suggesting that agents exert less effort for out-of-state sellers. Moreover, among out-of-state sellers, when the seller's house is vacant, and thus the seller is relatively uninformed, her residence stays on the market 15 percent shorter and sells 2.3 percent lower, than when the owner occupies the house and thus is better informed. This suggests that when there is no discipline from future referrals, the agent will take advantage of his clients, but only those who are uninformed and unable to defend themselves. Third, senior sellers (age over 65) have less ability to figure out the true performance of her agent than the younger sellers and are less likely to provide much future business, so agents are less concerned about "impressing" them. We find that senior sellers' houses stay on the market for 11 percent fewer days, resulting in a price reduction of 1.7 percent. Our results are robust to comparing moving-out-of-town versus staying-in-town sellers or moving out-of-state versus staying-in-town sellers, correlations of error terms in the price and days on market regressions, and controlling for the vacancy of the house (and the visual effect of a vacant house), and the preference of sellers for waiting. We interpret these findings together as supporting that i) a concern for referrals provides discipline to both shirking and manipulation of information by agents and ii) it is important that the client be informed in protecting her own interests in one-shot transactions.

Maria Guadalupe (Columbia University), Julie Wulf (Harvard Business School) and Amanda Starc (Harvard Business School) *Firm Organizational Structure and Productivity*

Fali Huang (Singapore Management University) and Peter Cappelli (The Wharton School, University of Pennsylvania) *Applicant Screening and Performance-Related Outcomes*

Arguably the fundamental problem faced by employers is how to elicit effort from employees. Most models suggest that employers meet this challenge by monitoring employees carefully to prevent shirking. But there is another option that relies on heterogeneity across employees, and that is to screen job candidates to find workers with a stronger work ethic who require less monitoring. In practice, virtually all employers use some level of applicant screening. It is a fundamental part of the human resources function in most firms as well as the basis of a substantial consulting industry.

We estimate the effects of employee screening on various performance-related outcomes using a national sample of U.S. establishments in 1997 National Employer Survey (NES97), which includes information on employee selection. We find that employers who screen applicants more intensively for work ethic monitor less and make greater use of systems such as teamwork where monitoring by supervisors is more difficult. This screening is also associated with higher wages, higher employee productivity, and lower involuntary turnover rates. Screening for other attributes, such as work experiences and academic performance, does not produce these results. Screening matters, but screening for workplace attitudes is the important issue.

The underlying intuition is that firms more selective in screening job candidates for work ethic are more likely to hire conscientious workers who are willing to work hard with less monitoring. These employers can then make use of practices that involve workers more and monitor them less; reduced monitoring costs allow the firm to share rents in the form of higher wages in order to attract and retain these good workers. Since conscientious workers are less likely to shirk, their productivity is higher relative to other firms and their involuntary turnover rates are lower.

JEL codes: M51, M54, J30.

Key words: *Employee Screening, Monitoring, Work Ethic, High Performance Work Practices, Principal-Agent Model.*

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