IZA DP No. 12707

Gender Differences in the Effect of Employee-Manager Friendships on Salary Dynamics in CPA Firms

Yossef Tobol
Ronen Bar-El
Yuval Arbel
Ofer H. Azar

OCTOBER 2019
IZA DP No. 12707

Gender Differences in the Effect of Employee-Manager Friendships on Salary Dynamics in CPA Firms

Yossef Tobol
Jerusalem College of Technology and IZA

Ronen Bar-El
The Open University of Israel

Yuval Arbel
Western Galilee College

Ofer H. Azar
Ben-Gurion University of the Negev

OCTOBER 2019

Any opinions expressed in this paper are those of the author(s) and not those of IZA. Research published in this series may include views on policy, but IZA takes no institutional policy positions. The IZA research network is committed to the IZA Guiding Principles of Research Integrity.

The IZA Institute of Labor Economics is an independent economic research institute that conducts research in labor economics and offers evidence-based policy advice on labor market issues. Supported by the Deutsche Post Foundation, IZA runs the world’s largest network of economists, whose research aims to provide answers to the global labor market challenges of our time. Our key objective is to build bridges between academic research, policymakers and society.

IZA Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

ISSN: 2365-9793
ABSTRACT

Gender Differences in the Effect of Employee-Manager Friendships on Salary Dynamics in CPA Firms*

We study the effect of employee-manager relations on salary increases. We use data obtained from a longitudinal survey, carried out among auditing team members in leading Israeli CPA firms (which are subsidiaries of American firms). Our main findings suggest that the degree of friendship with the team manager is positively correlated with the rate of the salary increase, particularly among female workers whose team manager is also a female. We also find that upon being hired to the job, male workers gain a higher return to experience compared with female workers.

JEL Classification: C33, D03, J31, J71
Keywords: CPA, friendship, gender salary gap, wage determination

Corresponding author:
Yossef Tobol
Department of Business Administration
Jerusalem College of Technology
Jerusalem 91160
Israel
E-mail: tobol@jct.ac.il

* We would like to thank Shlomit Wortzel and Batel Lavian for conducting the longitudinal survey.
1. Introduction

Gender gaps in wages are persistent in the labor markets for a long time (Blau and Kahn 1997; Blau and Kahn 2000; O’Neill 2003; Azmat and Manning 2006; Manning and Swaffield 2008; Olivetti and Petrongolo 2008; Blau and Kahn 2017). The wage gaps are also prevalent at the top of the income distribution (George-Levi et al., 2012), where women are underrepresented in the top of firms’ management and earn lower wages. Besides contradicting values of equal opportunities, gender discrimination has substantial effects on economic growth, where an increase of 50% in the gender wage gap is projected to lead to a decrease of 35% in output per-capita at the steady-state (Cavalcanti and Tavares, 2016).

Beyond legal bans on discrimination, legislators and regulators sometimes impose affirmative actions such as requiring a minimum number of females on boards of directors. The legislative actions combined with technological change (Black and Spitz-Oener 2010; Beaudry and Lewis 2014; Blau and Kahn 2016), the pill (Bailey et al., 2012) and also divorce laws (Fernández, and Wong 2014) have reduced the wage gap over the years (Black and Spitz-Oener, 2010; Heathcote et al., 2011; Mulligan and Rubinstein, 2008). Indeed, most of nowadays’ wage differentials between the genders are attributed to gender differences in occupations and industries and differences in gender roles and family division of labor by gender. Psychological attributes and non-cognitive skills also account for the wage gap, although their effect seems to be small to moderate (Blau and Kahn, 2016).

The experimental literature documented some gender differences in altruism, competitiveness, patience, and bargaining. Females tend to be more altruistic than males (Andreoni and Vesterlund, 2001) and more future-oriented (Silverman, 2003). Women in matrilineal societies seem to be as competitive as men in patriarchal societies (Gneezy et al., 2009). Nevertheless, children of both genders in matrilineal societies seem to be equally competitive, whereas girls become less competitive around puberty in patriarchal societies (Andersen et al., 2013). In Western societies, females were found to be less efficient in a
competitive environment (Gneezy et al., 2003). Females were also found to shy away from competitive work settings more often than males (Flory et al., 2015).

Females and males negotiate their salaries differently. Experimental evidence points out that females are more inclined than males to avoid negotiation over salaries (Babcock and Laschever, 2009; Bowles et al., 2007), particularly when there is uncertainty whether wages are negotiable (Croson and Gneezy, 2009; Leibbrandt and List, 2014). Females also tend to underperform compared to males in bargaining as employees (Mazei et al., 2015; Stuhlmacher and Walters, 1999) but not as employers (Dittrich et al., 2014). The tendency of females to avoid wage negotiation and to underperform in negotiations and their tendency to be less confident than males are some of the reasons for the gender wage gap (Card et al., 2016; Santos-Pinto, 2012).

Experiments also documented some differences between female and male directors. Adams and Funk (2012) found experimental evidence suggesting that female directors are more benevolent and universally concerned but not more risk-averse. Hoogendoorn and Oosterbeek (2013) found that equal gender mix teams achieve higher sales, profits, and earning per share than unisex teams. Nevertheless, evidence also suggests that an obligated quota of female representation in boards of directors might result in a significant decrease in the stock price and deterioration in operating performance (Ahern and Dittmar, 2012).

In this paper, we study the correlation between personal relations of employees and their managers, sorted by gender, and the rate of salary increases. We surveyed 419 auditing workers of leading Israeli CPA firms (which are subsidiaries of American firms) at the early stage of their careers.¹ The auditing workers work in teams of 3-6 workers and are supervised by either female of male team managers. We exploited the fact that at the end of each year, a worker undergoes a performance review by his team manager. As part of the evaluation process, the

¹ Approximately 1400 CPAs in Israel received their license in 2014. Our sample consists of new CPAs and therefore represents about third of the annual cohort of new Israeli CPAs.
team manager may increase the worker’s salary. We followed the audit workers for three years and documented their initial salary, experience, salary growth, marital status, and births. Uniquely to our research, we surveyed the auditing workers each year, *prior to the performance review*, and asked them to report the level of friendship with their team manager.

Our main findings suggest that the degree of friendship between a team manager and his employee is positively correlated with salary increases, primarily when both the team manager and the employee are females. We also find that upon being hired, females gain a lower return to experience compared to males.

The article proceeds as follow: Section 2 describes the data. Section 3 describes the data and regression outcomes when the team workers are initially hired, Section 4 analyzes the relationship between salary growth and the friendship variables based on the panel data structure covering 2012-2015, and Section 5 concludes and summarizes.

2. The data

2.1. Description of the data

The sample consists of responses obtained from a sample of 419 auditing workers, hired by leading Israeli CPA firms (which are subsidiaries of American firms) in 2012, who stayed for three years in the same team under the same team manager. The longitudinal survey included data on the workers' initial salary and salary growth in 2013, 2014, and 2015. We also asked the workers in each of these years to report the gender of their team manager, their years of experience, age, family status, and the number of children they have. Uniquely to our research, we also asked the workers to rank the degree of friendship with their boss in 2013, 2014 and 2015 on a Likert scale of one (the lowest degree) to seven (the highest degree).

All of the auditing workers in the sample have a BA degree, and most of them finished their two-year internship period required for a CPA license in Israel. They work in mixed-gender

---

2 We surveyed 472 workers, 439 of them stayed to the second year in their original team (namely, they did not quit, were not fired, and did not change team), 425 stayed to the third year and 419 stayed to the fourth year.
teams, and audit mainly financial reports of corporations traded in Tel-Aviv or New York stock exchanges. Each team worker audits several sections in the financial statements. The team manager occasionally meets with the team workers, monitors their work, and guides them to meet the deadlines and requirements of the American or Israeli securities and tax authorities.

As part of a formal procedure, the team manager conducts personal evaluation meetings with the team workers at the end of each year. Based on the evaluation, the team manager decides whether to terminate the worker's employment and decides about the worker’s salary increase for the next year (assuming he stays in the firm). If the worker retains his job, the team manager may increase his salary by 0% - 15%. A higher salary increase requires the formal approval of a higher authority.

We conducted the longitudinal survey as follows: In 2012, after receiving the consent of the CPA firms, their managements granted us access to the respondents' salaries and enabled us to keep confidential and anonymous data of the workers and their responses. We randomly selected new auditing workers and asked them to participate in the longitudinal survey. After receiving their consent, we asked them in October 2012, before their firm’s evaluation meeting, to fill out the questionnaire. Thanks to the cooperation of the CPA firms, we obtained the salary data using the workers' ID numbers directly from the firms. In March 2013, we returned to the workers and completed the question regarding the salary increase. We repeated the survey process with the same set of workers in October 2013 and 2014, and March 2014 and 2015. We maintained a time gap between the evaluation talk and the report on the level of friendship and strict confidentiality of the respondents and their answers to encourage honest reporting and to preclude a possible dependency between last year salary increase and the current level of friendship.
2.2. Descriptive statistics segmented by the gender of the team manager (upon being hired)

Table 1 displays the descriptive statistics segmented by the gender of the team manager. 62.56% of the 227 workers under female managers are females, compared to only 51.04% of the 192 workers under male managers (FEM_WORKER). The 11.52% difference is statistically significant at the 5% significance level. Also, the average age in years of employees under male managers is slightly higher (AGE).

A comparison of the other variables segmented by the gender of the managers reveals no significant differences between female and male managers. Specifically, we find no statistical differences in the initial salary (SALARY_2012) and experience (EXPERIENCE).

Approximately 60.94%-63.88% of the workers are married (MARRIED), and 41.15%-45.81% have at least one child (CHILDREN_DUM). The average number of children among the 183 workers with at least one child in 2012 is two (CHILDREN1).

3. Initial hiring conditions: Methodology and results

3.1. Initial salary regressions

Table 2 reports the regressions outcomes based on the model: \( Y_i = \theta_1 X_i^2 + \theta_2 + \mu_i \) applied separately to female and male workers, where \( Y_i = SALARY_i \); \( X_i^2 = EXPERIENCE_{SQ_i} \); \( \theta_1, \theta_2 \) are parameters; and \( \mu_i \) is the random disturbance term.\(^3\) The table is split into four categories based on the gender of the manager and worker.

According to the results reported in Table 2, the only case in which the square of experience was not found to be statistically significant in the projected 2012 salary equation, is the case of male managers and female workers.

\(^3\) The coefficient of the experience variable is statistically insignificant, therefore, we omitted it from the model.
3.2. Initial salary graphs

Figure 1 displays the relationship between the projected initial salary in teams which are managed by females, and the square of experience, segmented by gender. Figure 2 displays the corresponding relationship for male managers. Projections are based on the following equation, whose parameters were found to be statistically significant and are reported in Table 2:

\[ Y_i = \theta_1 X_i^2 + \theta_2 + \mu_i \]

where \( Y_i = SALARY_i \); \( X_i^2 = EXPERIENCE_{SQ_i} \); \( \theta_1, \theta_2 \) are parameters; and \( \mu_i \) is the random disturbance term.\(^4\) We separately applied this equation on female and male workers. For \( X_i = 0,1,2,3,4,5,6,7,8 \) years of experience, \( X_i^2 = 0,1,4,9,16,25,36,49,64 \) respectively. The initial annual salaries are measured in NIS (the local Israeli currency, where 1 NIS equals to approximately 0.25 US Dollars).

The figures show that regardless of the manager’s gender, there are no significant wage gaps between inexperienced female and male workers. However, regardless of the gender of the manager, starting from 3 - 4 years of experience (\( EXPERIENCE_{SQ}=9 \) and 16 respectively), there is a significant initial wage gap (at the 5% significance level) in favor of the male worker.

3.3. The initial salary equation upon recruitment with control variables

Consider the following model:

\[
\ln(SALARY)_{i,2012} = \alpha_1 + \alpha_2 EXPERIENCE_{i,2012} + \alpha_3 EXPERIENCE_{i,2012} \times SQ_{i,2012} \\
+ \alpha_4 MARRIED_{i,2012} + \alpha_5 CHILDREN_{0,i,2012} + u_{i,1,2012}
\]

where \( \ln(SALARY)_{i,2012} \) is the natural logarithm of the initial annual salary in US dollars.; \( EXPERIENCE_{i,2012} \) and \( EXPERIENCE_{SQ,i,2012} \) denote the years of experience and its square in 2012, when the worker was hired; \( MARRIED_{i,2012} \) equals 1 if the worker was

\(^4\) The coefficient of the experience variable is statistically insignificant, therefore, we omitted it from the model.
married when he or she was hired and 0 otherwise; \( CHILDREN_{i,2012} \) denotes the number of children in 2012; \( \alpha_1; \alpha_2; \alpha_3; \alpha_4 \) are parameters; and \( u_{i,2012} \) is the classical random disturbance term.

To measure the differences by the gender of managers and workers, we define the parameters of the model as follows:

\[
\alpha_j = \alpha_{j,1} + \alpha_{j,2} FEM\_MANAGER_{i,2012} + \alpha_{j,3} FEM\_WORKER_{i,2012} \\
+ \alpha_{j,4} FEM\_MANAGER_{i,2012} \cdot FEM\_WORKER_{i,2012}
\]  

where \( j = 1,2,4,5 \)

3.4. Initial salary regression outcomes

Table 3 displays the 2012 salary regressions obtained from the estimation of equation (1) segmented by the gender of the worker and the manager. The results show a significant return of 1.38% - 9.24% for an additional year of experience of male workers (significant at the 5%-1% significance level). By comparison, the return for an additional year of experience of female workers is significantly lower by 3.81% - 5.08% regardless of her manager's gender (significant at the 10% and 1% significance levels). Nevertheless, we find no statistically significant differences across the gender of the manager. Finally, the status of married is associated with a significant increase of 6.89% in the initial salary. The positive effect of the marital status on the initial salary may be attributed to a firmer salary negotiation conducted by individuals who support other people.

4. Dynamics of friendship evolvement: Methodology and results

4.1. Descriptive Statistics Stratified by Gender of the Team Manager (Panel Structure)

Table 1 displays the descriptive statistics segmented by the gender of the team manager. Interestingly, on the one hand, female managers show a higher tendency than male managers
do to abstain from a wage increase to female workers (7.28% vs. 4.42% of the female workers), although the difference is statistically insignificant (NO_GROWTH). On the other hand, female managers seem to be more generous in giving annual wage increases to female workers compared to male managers (7.08% vs. 4.73%). The 2.35% difference is statistically significant at the 1% significance level (GROWTH).

Table 1 also reveals a higher tendency of low friendship levels among female managers toward male workers (50.59% vs. 31.91% of the male workers). The 18.68% difference is statistically significant at the 1% significance level (LOW_FRIEND). At the other extreme, there is a lower tendency of high friendship level toward male workers among female managers (8.63% vs. 14.54% of the male workers). The 5.91% difference is statistically significant at the 5% significance level. In contrast, there is a higher tendency of high friendship level toward female workers among female managers (28.17% vs. 10.88% of the female workers). The 17.28% difference is statistically significant at the 1% significance level (HIGH_FRIEND).

We also control for changes in the marital status and parenthood of the workers over the years. 75.29% of the male workers hired by female managers are married, compared to only 62.41% of male workers hired by male managers. The 12.88% difference is statistically significant at the 1% significance level (MARRIED). 63.17% of the male workers hired by female managers have at least one child, compared to only 51.42% of the male workers hired by male managers. The 11.72% difference is statistically significant at the 1% significance level (CHILDREN_DUM). The average number of children per household with at least one child is about 2. Of the 696 households with at least one child, 70.69% have 1-2 children during the sample period (CHILDREN).  

---

5 Under the Israeli law, the length of the fully paid obligatory maternity leave was 14 weeks. Mothers can extend their maternity leave up to 26 weeks (the extra 12 weeks being unpaid). Although males are entitled to a parental leave under some restrictions, in practice most Israeli fathers do not use this possibility.
4.2. Friendship with the boss and salary dynamics

To test the effect of friendship with the team manager on the salary growth, we arranged the data according to a conventional structure of a 3-year panel data set. The following equation describes the fixed effects model:

\[
SALARY\_GROWTH_{i,t} = \beta_1 + \beta_2MID\_FRIEND_{i,t} + \beta_3HIGH\_FRIEND_{i,t} \\
+ \beta_4 \ln(SALARY)_{i,t} + \beta_5MARRIED_{i,t} + \beta_6CHILDREN_{i,t} \\
+ \beta_7EXPERIENCE_{i,t} + \beta_8EXPERIENCE_{i,t}^2 + IFE \cdot \vec{\delta} + u_{2,i,t}
\]  

where \(SALARY\_GROWTH_{i,t}\) is the annual salary growth of individual \(i\) (\(i = 1, 2, \ldots, 419\)) at time \(t\) (\(t = 2013, 2014, 2015\)); \(MID\_FRIEND_{i,t}\) and \(HIGH\_FRIEND_{i,t}\) are equal to 1 for a reported middle (high) friendship level with the boss of individual \(i\) at time \(t\) and 0 for a reported low friendship level.\(^6\) \(\ln(SALARY)_{i,t}\) is the natural logarithm of the annual salary of individual \(i\) at time \(t\) in US dollars; \(MARRIED_{i,t}\) equals 1 if the worker is married at time \(t\) and 0 otherwise; \(CHILDREN_{i,t}\) denotes the number of children of individual \(i\) at time \(t\); \(EXPERIENCE_{i,t}\) denotes the years of experience; \(\beta_1; \beta_2; \beta_3; \beta_4; \beta_5; \beta_6; \beta_7\) are parameters; \(IFE\) is a matrix of individual fixed effects dummies; \(\vec{\delta}\) is a vector of parameters that correspond to the \(IFE\) matrix, and \(u_{2,i,t}\) is the classical random disturbance term.

To measure the differences by the gender of managers and workers, we define the parameters of the model as follows:

\[
\beta_j = \beta_{j,1} + \beta_{j,2}FEM\_MANAGER_{i,t} + \beta_{j,3}FEM\_WORKER_{i,t} \\
+ \beta_{j,4}FEM\_MANAGER_{i,t} \cdot FEM\_WORKER_{i,t}
\]  

\(^6\) Consequently, \(\beta_2\) reflects the difference between low and middle friendship level; and \(\beta_3\) reflects the difference between middle and high friendship level.
Where \( j = 1, 2, 3, 4, 5, 6, 7 \)

4.3. Friendship with the boss and salary increase: Regression analysis

Table 5 reports the estimation results of the fixed effects regressions. Model (A) is the full model given by equation (3), which includes 25 explanatory variables (column (1) in Table 5). The full model is decomposed to Model (B), which includes only the eight friendship variables and omits the 17 control variables (column (3) in Table 5), and model (C), which includes all the remaining 17 explanatory variables and excludes the friendship variables (column (4) in Table 5). The stepwise model (column (2) in Table 5) starts with model (A) and gradually omits explanatory variables whose coefficients are statistically insignificant at the 5% significance level. This procedure may be justified on the grounds of high collinearity among the interaction variables in the full model. While the average VIF measure of the full model is equal to 18.54, which provides a clear indication of high collinearity (VIF>10), the VIF of the stepwise model drops to VIF=5.42<10.

The outcomes indicate that compared with the OLS with one constant term, the model with individual effect dummies is empirically supported.\(^7\) The null hypothesis \( \delta_2 = \delta_3 = \cdots = \delta_p = 0 \) indicates lack of generic heterogeneity. The corresponding calculated F-values in columns (1)-(4) are 3.94, 4.34, 3.63, and 4.18, respectively. The critical F-values at the 1% level with 418 degrees of freedom at the numerator and 813, 833, 830, 821 degrees of freedom at the denominator are 1.21-1.22. Thus, we reject the null hypothesis at the 1% significance level.

The Wu-Hausman test examines the null hypothesis that the random effects estimator is consistent and efficient and more appropriate than the fixed effects estimator. The result of the Wu-Hausman test applied on the full model (the calculated \( \chi^2 \) with 25 degrees of freedom

\(^7\)Johnston & DiNardo (1997) note that when the true model is the random effect model with individual heterogeneity, OLS will produce consistent but inefficient estimates.
equals 560.46 and is statistically significant at the 1% significance level (the critical $\chi^2_{1%}(25) = 44.31$), indicating that compared with the random effects estimator, the fixed-effects estimator is supported empirically.

The results stress the role of the level of friendship with the team manager in determining the wage increases, particularly among female workers whose team managers are also females. Consider the bottom part of columns (1) and (3) in Table 5, where the null hypotheses

\[
\text{coef}(MID\_\text{FRIEND} \cdot FEM\_\text{MANAGER}) + \text{coef}(MID\_\text{FRIEND} \cdot FEM\_\text{WORKER}) + \\
\text{coef}(MID\_\text{FRIEND} \cdot FEM\_\text{WORKER} \cdot FEM\_\text{MANAGER}) = 0 \\
\text{and} \\
\text{coef}(HIGH\_\text{FRIEND} \cdot FEM\_\text{MANAGER}) + \text{coef}(HIGH\_\text{FRIEND} \cdot FEM\_\text{WORKER}) + \\
\text{coef}(HIGH\_\text{FRIEND} \cdot FEM\_\text{WORKER} \cdot FEM\_\text{MANAGER}) = 0
\]

are tested empirically. Compared with the base category, $FEM\_\text{MANAGER} = FEM\_\text{WORKER} = MID\_\text{FRIEND} = HIGH\_\text{FRIEND} = 0$, an increase in the level of friendship of the female worker with her female manager from low (1-3 on the 1-7 scale) to medium (4-5) degree, is associated with 1.74% - 2.40% projected salary growth (statistically significant at the 10% - 1% levels in the two columns). Compared with the base category, $FEM\_\text{MANAGER} = FEM\_\text{WORKER} = MID\_\text{FRIEND} = HIGH\_\text{FRIEND} = 0$, an increase in the level of friendship of a female worker with her female manager from low (1-3 on the 1-7 scale) to high (6-7) degree, is associated with 4.08% - 4.25% projected salary growth (statistically significant at the 1% level in the two columns).

An additional year of experience is projected to increase the salary growth by additional 1.52%-1.54% for male workers hired by female managers (significant at the 5%-1% levels) and by additional 1.96% for female workers hired by female managers.

Table 6 reports the results of two Likelihood Ratio tests designed to examine the explanatory power of the friendship variables. We conducted two Likelihood Ratio tests. Model (A) is the full model, which includes 25 explanatory variables (column (1) in Table 3). The full
model is decomposed to model (B), which includes only the eight friendship variables and omits the 17 control variables (column (3) in Table 5), and model (C), which includes all the remaining 17 explanatory variables (column (4) in Table 5). The LR tests yield two calculated statistics, based on which we derive the percentage of contribution for each group of variables. This calculation demonstrates the high explanatory power of the friendship variables. 47.20% of the variance of the dependent variable is explained by the independent variables in model (A). The explained part of the variance is decomposed into eight friendship variables, which contribute 52.62%, and the remaining 17 variables which contribute 47.38%.

5. Conclusions
We examined the correlation of personal relations between team managers and their employees on the employees' salary dynamics. We studied the dynamics of salary increases over three years of 419 auditing workers in leading Israeli CPA firms (which are subsidiaries of American firms) at an early stage of their careers.

We found that friendship with the team manager is positively correlated with salary increases, particularly among female workers whose team managers are also females. Auditing workers work in small teams and have a large extent of autonomy. In this kind of work environment, a manager must count on his team members and therefore tends to promote workers with whom he feels comfortable to work. We conjecture that female managers tend to promote their female friend workers for two additional motives. First, female managers tend to help other females (Cohen and Huffman 2007; Matsa and Miller 2011). Second, female leadership style tends to be more participative (Eagly and Johnson, 1990). This managing style further underlines the importance of personal relations at the workplace.

---

8 The general formula for the calculated LR statistics is: \( LR = -2\ln\lambda = 2[lnL(\hat{\beta}, \hat{\sigma}^2) - lnL(\bar{\beta}, \bar{\sigma}^2)] \), where \( \hat{\beta}, \hat{\sigma}^2 \) are the parameters and variance of the unrestricted model, and \( \bar{\beta}, \bar{\sigma}^2 \) are the parameters and variance of the restricted model. (e.g., Johnston & DiNardo (1997), p. 147).
We also found that upon being hired, females gain an average lower return to experience compared to their male counterparts. One possible reason may be the stronger inclination of females to avoid negotiation over salaries, particularly under uncertainty whether wages are negotiable (Croson and Gneezy, 2009; Leibbrandt and List, 2014).

Our findings are consistent with evidence suggesting that the presence of women in firms’ management helps other women. Matsa and Miller (2011), for example, found a positive correlation between the female share in the board of directors in the previous year and the female share in the firm’s top executives in the current year. Cohen and Huffman (2007) found a narrowing wage gap in the presence of high-status female managers. Nevertheless, other evidence suggests that a female worker is less likely to be hired by a committee where the share of female evaluators is relatively high since the female evaluators overestimate the quality of male candidates (Bagues and Esteve-Volart, 2010). Our findings may also be explained by the tendency of females to adopt a more participative leadership style (Eagly and Johnson, 1990), which underlies the importance of personal relations at the workplace.
References
Adams, R.B., Funk, P., 2012. Beyond the Glass Ceiling: Does Gender Matter? Management Science 58, 219–235.
Ahern, K.R., Dittmar, A.K., 2012. The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation. The Quarterly Journal of Economics 127, 137–197.
Andersen, S., Ertac, S., Gneezy, U., List, J.A., Maximiano, S., 2013. Gender, Competitiveness, and Socialization at a Young Age: Evidence from a Matrilineal and a Patriarchal Society. Review of Economics and Statistics 95, 1438–1443.
Andreoni, J., Vesterlund, L., 2001. Which Is the Fair Sex? Gender Differences in Altruism. The Quarterly Journal of Economics 116, 293–312.
Azmat, G., Güell, M., Manning, A., 2006. Gender Gaps in Unemployment Rates in OECD Countries. Journal of Labor Economics 24, 1–37.
Babcock, L., Laschever, S., 2009. Women Don’t Ask: Negotiation and the Gender Divide. Princeton University Press.
Bagues, M.F., Esteve-Volart, B., 2010. Can Gender Parity Break the Glass Ceiling? Evidence from a Repeated Randomized Experiment. Review of Economic Studies 77, 1301–1328.
Bailey, M.J., Hershbein, B., Miller, A.R., 2012. The Opt-In Revolution? Contraception and the Gender Gap in Wages. American Economic Journal: Applied Economics 4, 225–254.
Beaudry, P., Lewis, E., 2014. Do Male-Female Wage Differentials Reflect Differences in the Return to Skill? Cross-City Evidence From 1980-2000. American Economic Journal: Applied Economics 6, 178–194.
Black, S.E., Spitz-Oener, A., 2010. Explaining Women’s Success: Technological Change and the Skill Content of Women’s Work. Review of Economic Studies 91, 187–194.
Blau, F.D., Kahn, L.M., 2016. The Gender Wage Gap: Extent, Trends, and Explanations. NBER 21913.
Blau, F.D., Kahn, L.M., 2000. Gender Differences in Pay. Journal of Economic Perspectives XIV, 75–99.

Blau, F.D., Kahn, L.M., 1997. Swimming Upstream: Trends in the Gender Wage Differential in the 1980s. Journal of Labor Economics 15, 1–42.

Bowles, H.R., Babcock, L., Lai, L., 2007. Social Incentives for Sex Differences in the Propensity to Initiate Bargaining: Sometimes It Does Hurt to Ask. Organizational Behavior and Human Decision Processes 243–273.

Card, D., Cardoso, Ana, R., Kline, P., 2016. Bargaining, Sorting, and The Gender Wage Gap: Quantifying The Impact of Firms on the Relative Pay of Women. Quarterly Journal of Economics 131, 633–686.

Cavalcanti, T., Tavares, J., 2016. The Output Cost of Gender Discrimination: A Model-based Macroeconomics Estimate. Economic Journal 126, 109–134.

Cohen, P.N., Huffman, M.L., 2007. Working for the Woman? Female Managers and the Gender Wage Gap. American Sociological Review 72, 681–704.

Croson, R., Gneezy, U., 2009. Gender Differences in Preferences. Journal of Economic Literature 47, 448–474.

Dittrich, M., Knabe, A., Leipold, K., 2014. Gender Differences in Experimental Wage Negotiations. Economic Inquiry 52, 862–873.

Eagly, A.H., Johnson, B.T., 1990. Gender and Leadership Style: A Meta-Analysis. Psychological Bulletin 108, 233–256.

Fernández, R., Wong, J., 2014. Unilateral Divorce, the Decreasing Gender Gap, and Married Women’s Labor Force Participation. American Economic Review 104, 342–347.

Flory, J.A., Leibbrandt, A., List, J.A., 2015. Do Competitive Workplaces Deter Female Workers? A Large-Scale Natural Field Experiment on Job Entry Decisions. The Review of Economic Studies 82, 122–155.
George-Levi, G., Golan, L., Miller, R.A., 2012. Gender Differences in Executive Compensation and Job Mobility. Journal of Labor Economics 30, 829–872.

Gneezy, U., Leonard, Kenneth, L., List, John, A., 2009. Gender Differences in Competition: Evidence From a Matrilineal and a Patriarchal Society. Econometrica 77, 1637–1664.

Gneezy, U., Muriel, N., Rustichini, A., 2003. Performance in Competitive Environments: Gender Differences. The Quarterly Journal of Economics 118, 1049–1074.

Heathcote, J., Storesletten, K., Violante, G.L., 2011. The Macroeconomic Implications of Rising Wage Inequality in the United States. Journal of Political Economy 118, 681–722.

Hoogendoorn, S., Oosterbeek, H., 2013. The Impact of Gender Diversity on the Performance of Business Teams: Evidence from a Field Experiment. Management Science 59, 1514–1528.

Johnston, J., DiNardo, J., 1997. Econometric methods. Fourth edition. McGraw-Hill.

Leibbrandt, A., List, J.A., 2014. Do Women Avoid Salary Negotiations? Evidence from a Large-Scale Natural Field Experiment. Management Science 61, 2016–2024.

Manning, A., Swaffield, J., 2008. The Gender Gap in Early-Career Wage Growth. The Economic Journal 118, 983–1024.

Matsa, David, A., Miller, Amalia, R., 2011. Chipping away at the Glass Ceiling: Gender Spillovers in Corporate Leadership. The American Economic Review 101, 635–639.

Mazei, J., Hüffmeier, J., Freund, P.A., Stuhlmacher, A.F., Bilke, L., Hertel, G., 2015. A Meta-Analysis on Gender Differences in Negotiation Outcomes and their Moderators. Psychological Bulletin 141, 85–104.

Mulligan, C.B., Rubinstein, Y., 2008. Selection, Investment, and Women’s Relative Wages Over Time. Quarterly Journal of Economics 123, 1061–1110.

O’Neill, J., 2003. A Meta-Analysis on Gender Differences in Negotiation Outcomes and their Moderators. AEA Papers and Proceedings 93, 309–314.
Olivetti, C., Petrongolo, B., 2008. Unequal Pay or Unequal Employment? A Cross-Country Analysis of Gender Gaps. Journal of Labor Economics 26, 621–654.

Santos-Pinto, L., 2012. Labor Market Signaling and Self-Confidence: Wage Compression and the Gender Pay Gap. Journal of Labor Economics 30, 873–914.

Silverman, I.W., 2003. Gender Differences in Delay of Gratification: A Meta-Analysis. Sex Roles 49, 451–463.

Stuhlmacher, A.F., Walters, A.E., 1999. Gender Differences in Negotiation Outcome: A Meta-Analysis. Personnel Psychology 52, 653–677.
Table 1: Descriptive statistics segmented by the gender of the team manager

| Variable          | Definition                                                                 | Obs. | Female Manager | Male Manager | Difference |
|-------------------|-----------------------------------------------------------------------------|------|----------------|--------------|------------|
| FEM_WORKER        | 1=female worker; 0=male worker                                              | 419  | 62.56% (0.0322) | 51.04% (0.0362) | 11.52%** (0.0483) |
| SALARY_2012       | The annual salary measured in US Dollars workers got in the first year of teamwork | 419  | 19,080.40 (422.00) | 19,476.56 (483.55) | -396.16 (638.99) |
| ln(SALARY_2012)   | Natural logarithm of the annual salary                                      | 419  | 9.81 (0.0213)   | 9.83 (0.0219)   | -0.02 (0.0307) |
| ln(SALARY_2012) FEMALE_WORKER=1 | Natural logarithm of the annual salary for female worker                  | 240  | 9.7378 (0.0284) | 9.7535 (0.0265) | -0.0157 (0.0406) |
| ln(SALARY_2012) MALE_WORKER=1  | Natural logarithm of the annual salary for male worker                     | 179  | 9.9176 (0.0336) | 9.9072 (0.0275) | 0.0104 (0.0440) |
| EXPERIENCE        | Years of work at the office                                                | 419  | 4.27 (0.1056)   | 4.53 (0.1131)   | -0.26 (0.1549) |
| AGE               | Age of the worker in years                                                 | 419  | 28.63 (0.1459)  | 29.05 (0.1531)  | -0.42** (0.2121) |
| MARRIED1          | 1=Married in the first year; 0=otherwise                                   | 419  | 63.88% (0.0320) | 60.94% (0.0353) | 2.94% (0.0476) |
| CHILDREN_DUM1     | 1= the team worker has at least one child in the first year; 0=otherwise   | 419  | 45.81% (0.0331) | 41.15% (0.0356) | 4.66% (0.0487) |
| CHILDREN1 (CHILDREN_DUM1=1) | Number of children in the first year                                      | 183  | 2.29 (0.1116)   | 2.13 (0.0871)   | 0.16 (0.1489)  |
| Observations      |                                                                             |      | 227            | 192           |            |

Notes: The descriptive statistics refer to the difference between 227 (192) team workers who work under a female (male) manager. Standard errors are displayed in parentheses. * significant at the 10% significance level. ** significant at the 5% significance level. *** significant at the 1% significance level.

Table 2: Relationship between projected initial salary and experience

The regression outcomes that correspond to Figures 1 and 2 are (numbers in parentheses are p-values):

| Female Managers (N=227) | Male Managers (N=192) |
|-------------------------|-----------------------|
| Female Workers (N=240)  | $\hat{Y}_f = 71.96X_1^2 + 16,424.77$ (0.031) | $\hat{Y}_f = 46.75X_1^2 + 16,732.27$ (0.133) |
|                         | (<0.001)              | (<0.001)              |
| Male Workers (N=179)    | $\hat{Y}_f = 109.16X_1^2 + 18,793.02$ (0.026) | $\hat{Y}_f = 175.57X_1^2 + 17,186.29$ (0.001) |
|                         | (<0.001)              | (<0.001)              |

where $Y_i = SALARY_i; X_i^2 = EXPERIENCE\_SQ_i$
**Figure 1**: Relationship between projected initial salary and experience - female managers.

Notes: Figure (1a) presents the projected values of annual initial salaries applied separately to female workers and male workers and obtained from estimation of the following equation: $Y_i = \theta_1 X_i^2 + \theta_2 + \mu_i$, where $Y_i = SALARY_i$; $X_i^2 = EXPERIENCE_{SQ}$; $\theta_1, \theta_2$ are parameters; and $\mu_i$ is the random disturbance term. For $X_i = 0,1,2,3,4,5,6,7,8$ years of experience, $X_i^2 = 0,1,4,9,16,25,36,49,64$ respectively.

Figure (1b) presents the male-female projected annual initial salary differences for $X_i^2 = 0,1,4,9,16,25,36,49,64$ and their 95% confidence intervals.

Annual initial salaries are measured in NIS (the local Israeli currency, where 1 NIS roughly equals 0.25 US Dollars).
**Figure 2:** Relationship between projected initial salary and experience – male managers.

Notes: Figure (2a) presents projected values of annual initial salaries applied separately to female workers and male workers and obtained from estimation of the following equation: $Y_i = \theta_1 X_i^2 + \theta_2 + \mu_i$, where $Y_i = SALARY_i$;

$X_i^2 = EXPERIENCE\_SQ_i$; $\theta_1, \theta_2$ are parameters; and $\mu_i$ is the random disturbance term. For $X_i = 0,1,2,3,4,5,6,7,8$ years of experience, $X_i^2 = 0,1,4,9,16,25,36,49,64$ respectively.

Figure (2b) presents the male-female projected annual initial salary differences for $X_i^2 = 0,1,4,9,16,25,36,49,64$ and their 95% confidence intervals.

Annual initial salaries are measured in NIS (the local Israeli currency, where 1 NIS roughly equals 0.25 US Dollars).
Table 3: Initial salary regressions

| VARIABLES                        | (1)               | (2)               |
|----------------------------------|-------------------|-------------------|
| ln (SALARY)                      | full              | Stepwise          |
| Constant                         | 9.785***          | 9.719***          |
|                                  | (0.151)           | (0.0318)          |
| FEM_MANAGER                      | 0.192             |                   |
|                                  | (0.159)           |                   |
| FEM_WORKER                       | 0.0537            |                   |
|                                  | (0.145)           |                   |
| FEM_MANAGER · FEM_WORKER         | -0.269            |                   |
|                                  | (0.199)           |                   |
| EXPERIENCE                       | -0.0403           |                   |
|                                  | (0.0519)          |                   |
| EXPERIENCE_SQ                    | 0.0116**          | 0.00688***        |
|                                  | (0.00486)         | (0.00103)         |
| EXPERIENCE · FEM_MANAGER         | -0.0281           |                   |
|                                  | (0.0313)          |                   |
| EXPERIENCE · FEM_WORKER          | -0.0508*          | -0.0381***        |
|                                  | (0.0276)          | (0.00624)         |
| EXPERIENCE · FEM_MANAGER · FEM_WORKER | 0.0441       |                   |
|                                  | (0.0394)          |                   |
| MARRIED1                         | 0.0601            | 0.0689**          |
|                                  | (0.0791)          | (0.0295)          |
| MARRIED1 · FEM_MANAGER           | -0.0402           |                   |
|                                  | (0.119)           |                   |
| MARRIED1 · FEM_WORKER            | -0.0366           |                   |
|                                  | (0.109)           |                   |
| MARRIED1 · FEM_MANAGER · FEM_WORKER | 0.108          |                   |
|                                  | (0.152)           |                   |
| CHILDREN1                        | 0.00500           |                   |
|                                  | (0.0319)          |                   |
| CHILDREN1 · FEM_MANAGER          | -0.0153           |                   |
|                                  | (0.0456)          |                   |
| CHILDREN1 · FEM_WORKER           | 0.0533            |                   |
|                                  | (0.0459)          |                   |
| CHILDREN1 · FEM_MANAGER · FEM_WORKER | -0.0461       |                   |
|                                  | (0.0596)          |                   |
Observations | 419 | 419
---|---|---
R² | 0.148 | 0.132
F-Statistic | 4.379 | 21.06

Notes: The data refer to 2012 (the initial year of teamwork). Standard errors are given in parentheses. * significant at the 10% significance level. ** significant at the 5% significance level. *** significant at the 1% significance level. The following table provides the projected return for single male workers based on years of experience:

| EXPERIENCE | EXPERIENCE_SQ | Multiply by | Projected return | Standard Errors |
|---|---|---|---|---|
| 1 | 1 | 0.00688-0.0116 | 1.38%-2.31% | (0.21%)-(0.97%) |
| 2 | 4 | 0.00688-0.0116 | 2.75%-4.62% | (0.41%)-(1.94%) |
| 3 | 9 | 0.00688-0.0116 | 4.13%-6.93% | (0.62%)-(2.92%) |
| 4 | 16 | 0.00688-0.0116 | 5.50%-9.24% | (0.83%)-(3.89%) |

Table 4: Descriptive statistics segmented by the gender of the team manager: Panel data

| Variable | Definition | Observ.×Years | Female Manager | Male Manager | Difference |
|---|---|---|---|---|---|
| FEM_WORKER | 1=female worker; 0=male worker | 1,257 | 0.6256 (0.0186) | 0.5104 (0.0208) | 0.1152*** (0.0278) |
| NO_GROWTH | 1=the worker got 0% raise; 0=otherwise | 1,257 | 0.0631 (0.0093) | 0.0486 (0.0090) | 0.0145 (0.0131) |
| NO_GROWTH | 1=for the female group the worker got 0% raise; 0=otherwise | 720 | 0.0728 (0.0126) | 0.0442 (0.0120) | 0.0286 (0.0182) |
| NO_GROWTH | 1=for the male group the worker got 0% raise; 0=otherwise | 537 | 0.0471 (0.0133) | 0.0532 (0.0134) | -0.0061 (0.0189) |
| GROWTH | Percent of salary increase (if the worker got a raise) | 1,186 | 0.0694 (0.0016) | 0.0559 (0.0015) | 0.0135*** (0.0022) |
| GROWTH | Percent of salary increase (if the female worker got a raise) | 676 | 0.0708 (0.0022) | 0.0473 (0.0019) | 0.0235*** (0.0031) |
| GROWTH | Percent of salary increase (if the male worker got a raise) | 510 | 0.0670 (0.0022) | 0.0651 (0.0021) | 0.0019 (0.0031) |
| ln(SALARY) | Natural logarithm of the annual salary | 1,257 | 9.8544 (0.0127) | 9.8763 (0.0129) | -0.0219 (0.0182) |
| ln(SALARY) | Natural logarithm of the annual salary for female worker | 720 | 9.7820 (0.0168) | 9.7920 (0.0154) | -0.0100 (0.0239) |
| ln(SALARY) | Natural logarithm of the annual salary for male worker | 537 | 9.9752 (0.0166) | 9.9642 (0.0197) | 0.0110 (0.0261) |
| Variable          | Definition                                                                 | Obs.×Years | Female Manager | Male Manager | Difference |
|-------------------|----------------------------------------------------------------------------|------------|----------------|--------------|------------|
| LOW_FRIEND        | 1=Low degree of friendship with the team manager (1, 2 or 3 on a scale of 1 to 7); 0=otherwise | 1,257      | 0.4684 (0.0191) | 0.4149 (0.0255) | 0.0535* (0.0281) |
| LOW_FRIEND        |                                                                           | 720        | 0.4460 (0.0241) | 0.5068 (0.0292) | -0.0608 (0.0378) |
| LOW_FRIEND        |                                                                           | 537        | 0.5059 (0.0314) | 0.3191 (0.0278) | 0.1868*** (0.0418) |
| MID_FRIEND        | 1=Middle degree of friendship with the team manager (4, 5 on a scale of 1 to 7); 0=otherwise | 1,257      | 0.3231 (0.0179) | 0.4583 (0.0208) | -0.1352*** (0.0273) |
| MID_FRIEND        |                                                                           | 720        | 0.2723 (0.0216) | 0.3844 (0.0284) | -0.1121*** (0.0351) |
| MID_FRIEND        |                                                                           | 537        | 0.4078 (0.0308) | 0.5355 (0.0298) | -0.1277*** (0.0429) |
| HIGH_FRIEND       | 1=High degree of friendship with the team manager (6 or 7 on a scale of 1 to 7); 0=otherwise | 1,257      | 0.2085 (0.0156) | 0.1267 (0.0139) | 0.0818*** (0.0212) |
| HIGH_FRIEND       |                                                                           | 720        | 0.2817 (0.0218) | 0.1088 (0.0182) | 0.1728*** (0.0303) |
| HIGH_FRIEND       |                                                                           | 537        | 0.0863 (0.0176) | 0.1454 (0.0210) | -0.0591** (0.0277) |
| MARRIED           | 1=Married; 0=otherwise                                                    | 1,257      | 0.7224 (0.0172) | 0.6736 (0.0195) | 0.0488* (0.0259) |
| MARRIED           |                                                                           | 720        | 0.7042 (0.0221) | 0.7211 (0.0262) | -0.0169 (0.0344) |
| Variable                  | Definition                                                                 | Obs.×Years | Female Manager | Male Manager | Difference  |
|--------------------------|---------------------------------------------------------------------------|------------|----------------|--------------|-------------|
| MARRIED                  | 1=Married for the male worker; 0=otherwise                                | 537        | 0.7529         | 0.6241       | 0.1288***   |
| MALE_WORKER=1            |                                                                           |            | (0.0271)       | (0.0289)     | (0.0398)    |
| CHILDREN_DUM             | 1= the team worker has at least one child; 0=otherwise                    | 1,257      | 0.5727         | 0.5313       | 0.0414**    |
|                          |                                                                           |            | (0.0190)       | (0.0208)     | (0.0281)    |
| FEMALE_WORKER=1          | 1= the team worker has at least one child for the female worker; 0=otherwise| 720        | 0.5376         | 0.5476       | -0.0100     |
|                          |                                                                           |            | (0.0242)       | (0.0291)     | (0.0378)    |
| CHILDREN_DUM             | 1= the team worker has at least one child for the male worker; 0=otherwise | 537        | 0.6314         | 0.5142       | 0.1172***   |
| MALE_WORKER=1            |                                                                           |            | (0.0303)       | (0.0298)     | (0.0426)    |
| CHILDREN_DUM (CHILDREN_DUM=1) | Number of children for team workers with at least one child             | 696        | 2.5077         | 2.3105       | 0.1972**    |
|                          |                                                                           |            | (0.0658)       | (0.0578)     | (0.0902)    |
| EXPERIENCE               | Years of work at the office                                              | 1,257      | 5.2709         | 5.5260       | -0.2551**   |
|                          |                                                                           |            | (0.0685)       | (0.0735)     | (0.1006)    |

Notes: The descriptive statistics refer to the difference between 720 (537) female×years (male×years) who work under a female (male) manager. Standard errors are given in parentheses. * significant at the 10% significance level. ** significant at the 5% significance level. *** significant at the 1% significance level.
Table 5: The fixed effects model

| VARIABLES                                      | (1) SALARY GROWTH | (2) SALARY GROWTH | (3) SALARY GROWTH | (4) SALARY GROWTH |
|------------------------------------------------|-------------------|-------------------|-------------------|-------------------|
| Constant                                       | 2.449***          | 2.529***          | 0.0424***         | 2.606***          |
|                                                | (0.294)           | (0.279)           | (0.00127)         | (0.312)           |
| MID_FRIEND                                     | 0.00636           | -                 | 0.0100**          | -                 |
|                                                | (0.00521)         | -                 | (0.00403)         | -                 |
| MID_FRIEND·FEM_MANAGER                         | 0.00711           | -                 | 0.00653           | -                 |
|                                                | (0.00732)         | -                 | (0.00573)         | -                 |
| MID_FRIEND·FEM_WORKER                          | 0.00392           | -                 | 0.00746           | -                 |
|                                                | (0.00723)         | -                 | (0.00572)         | -                 |
| MID_FRIEND·FEM_MANAGER·FEM_WORKER              | 0.00998           | -                 | 0.0178**          | -                 |
|                                                | (0.00974)         | -                 | (0.00791)         | -                 |
| HIGH_FRIEND                                    | 0.0130            | -                 | 0.0179**          | -                 |
|                                                | (0.00937)         | -                 | (0.00882)         | -                 |
| HIGH_FRIEND·FEM_MANAGER                        | 0.0212            | -                 | 0.0130            | -                 |
|                                                | (0.0131)          | -                 | (0.0123)          | -                 |
| HIGH_FRIEND·FEM_WORKER                         | 0.00834           | -                 | 0.00986           | -                 |
|                                                | (0.0131)          | -                 | (0.0120)          | -                 |
| HIGH_FRIEND·FEM_MANAGER·FEM_WORKER             | 0.0157            | -                 | 0.0368**          | -                 |
|                                                | (0.0168)          | -                 | (0.0152)          | -                 |
| ln(SALARY)                                     | -0.182***         | -0.148***         | -                 | -0.203***         |
|                                                | (0.0627)          | (0.0392)          | -                 | (0.0658)          |
| ln(SALARY)·FEM_MANAGER                         | -0.275***         | -0.211***         | -                 | -0.258***         |
|                                                | (0.0925)          | (0.0563)          | -                 | (0.0980)          |
| ln(SALARY)·FEM_WORKER                          | 0.0605            | -                 | -                 | 0.0780            |
|                                                | (0.0961)          | -                 | -                 | (0.102)           |
| ln(SALARY)·FEM_MANAGER·FEM_WORKER              | 0.132             | -                 | -                 | 0.0803            |
|                                                | (0.127)           | -                 | -                 | (0.135)           |
| MARRIED                                        | -0.00198          | -                 | -                 | -0.00247          |
|                                                | (0.00648)         | -                 | -                 | (0.00699)         |
| MARRIED·FEM_MANAGER                            | 0.00494           | -                 | -                 | 0.00401           |
|                                                | (0.00918)         | -                 | -                 | (0.00989)         |
| MARRIED·FEM_WORKER                             | -0.00340          | -                 | -                 | -0.00452          |
|                                                | (0.0102)          | -                 | -                 | (0.0110)          |
| MARRIED·FEM_MANAGER·FEM_WORKER                 | 0.0120            | -                 | -                 | 0.0111            |
|                                                | (0.0133)          | -                 | -                 | (0.0143)          |
| CHILDREN                                       | 0.00625*          | -                 | -                 | 0.00604           |
|                                                | (0.00358)         | -                 | -                 | (0.00386)         |
| CHILDREN·FEM_MANAGER                            | -0.00128          | -                 | -                 | -0.000580         |
|                                                | (0.00489)         | -                 | -                 | (0.00527)         |
| CHILDREN·FEM_WORKER                             | -0.00429          | -                 | -                 | -0.00379          |
|                                                | (0.00491)         | -                 | -                 | (0.00526)         |
| CHILDREN·FEM_MANAGER·FEM_WORKER                 | -0.00455          | -                 | -                 | -0.00238          |
|                                                | (0.00648)         | -                 | -                 | (0.00694)         |
| EXPERIENCE                                     | 0.00374           | -                 | -                 | 0.00353           |
|                                                | (0.00561)         | -                 | -                 | (0.00544)         |
| EXPERIENCE·FEM_MANAGER                          | 0.0152**          | 0.0154***         | -                 | 0.0180***         |
|                                                | (0.00704)         | (0.00371)         | -                 | (0.00668)         |
| EXPERIENCE·FEM_WORKER                           | -0.00143          | -                 | -                 | -0.000843         |
|                                                | (0.00640)         | -                 | -                 | (0.00603)         |
| VARIABLES | (1) SALARY_GROWTH | (2) SALARY_GROWTH | (3) SALARY_GROWTH | (4) SALARY_GROWTH |
|-----------|------------------|------------------|------------------|------------------|
| EXPERIENCE + FEM_MANAGER + FEM_WORKER | 0.000787 | 0.0196*** | - | 0.0135 |
| EXPERIENCE SQ | 0.000582** | 0.00116*** | - | 0.000932*** |
| Method | Fixed-Effect | Fixed-Effect | Fixed-Effect | Fixed-Effect |
| Individual-Effect Dummies F-Test: $\delta_2 = \cdots = \delta_p = 0$; df(1)=(418,813); df(2)=(418,833); df(3)=(418,830); df(4)=(418,821) | 3.94*** | 4.34*** | 3.63*** | 4.18*** |
| Wu Hausman Test | 560.46*** | 356.02*** | 87.01*** | 352.62*** |
| $\text{coef} (\text{MID_FRIEND} + \text{FEM_MANAGER})$ | 0.0174* | 0.0240*** | - | - |
| $\text{coef} (\text{MID_FRIEND} + \text{FEM_WORKER})$ | (0.0089) | (0.007) | - | - |
| $\text{coef}(\text{HIGH_FRIEND} + \text{FEM_MANAGER})$ | 0.0425*** | 0.0408*** | - | - |
| $\text{coef}(\text{HIGH_FRIEND} + \text{FEM_WORKER})$ | (0.0160) | (0.0148) | - | - |
| Observations | 1,257 | 1,257 | 1,257 | 1,257 |
| $R^2$ | 0.472 | 0.367 | 0.387 | 0.377 |
| VIF (OLS without individual-effect dummies) | 18.54 | 5.42 | 5.58 | 22.13 |
| Number of Clusters | 419 | 419 | 419 | 419 |
| F-Statistic | 29.06*** | 96.77*** | 65.59*** | 29.25*** |
| Log-likelihood | 3158.33 | 3045 | 3064.99 | 3054.65 |

Notes: The fixed effects model is supported empirically by the rejection of the null hypothesis that all the constant terms of the 419 individuals ($P=419$) are equal (at the 1% significance level) and by the outcomes of the Wu-Hausman test. Standard errors are given in parentheses. * significant at the 10% significance level. ** significant at the 5% significance level. *** significant at the 1% significance level.

Table 6

| Calculated Chi² | % |
|-----------------|---|
| LR (d.f.= 17) Models (A) vs. model (B) | 186.69 | 47.38% |
| LR (d.f.= 8) Models (A) vs. model (C) | 207.35 | 52.62% |
| Total | 394.04 | 100% |

Notes: Model (A) is the full model, which includes 25 explanatory variables (column (1) in Table 5); The full model is decomposed to Model (B), which includes only the eight friendship variables and omits the 17 control variables (column (3) in Table 5), and model (C), which includes all the remaining 17 explanatory variables and excludes the friendship variables (column (4) in Table 5). The general formula for the calculated LR statistics is: $LR = -2 \ln L(\hat{\beta}, \sigma^2) + \ln L(\tilde{\beta}, \tilde{\sigma}^2)$, where $\hat{\beta}, \sigma^2$ are the parameters and variance of the unrestricted model, and $\tilde{\beta}, \tilde{\sigma}^2$ are the parameters and variance of the restricted model. (e.g., Johnston & DiNardo (1997), p. 147).