# Online appendix: Do Female Executives Make a Difference? The Impact of Female Leadership on Gender Gaps and Firm Performance* 

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## A Proof of Proposition 1

Proof. Define $\widehat{s}$ as the signal such that the wage of male and females is the same. From (2.2) note that $\widehat{s}$ is independent of the task assignment, and satisfies $\Phi_{m}(\bar{q} \mid \widehat{s})=$ $\Phi_{f}(\bar{q} \mid \widehat{s}) ; \widehat{s}$ exists and is unique because the cumulatives of two Normal distributions with different variance cross only once. ${ }^{1}$ Under the assumption $\sigma_{\epsilon f}>\sigma_{\epsilon m}, \Phi_{m}$ has thinner tails than $\Phi_{f}$, therefore:

$$
\begin{array}{lll}
1-2 \Phi_{m}(\bar{q} \mid s)<1-2 \Phi_{f}(\bar{q} \mid s) & \text { for all } & s<\widehat{s} \\
1-2 \Phi_{f}(\bar{q} \mid s)<1-2 \Phi_{m}(\bar{q} \mid s) & \text { for all } & s>\widehat{s} \tag{A.2}
\end{array}
$$

Observe also from (2.2) that either $\widehat{s} \leq \min \left\{\bar{s}_{m}, \bar{s}_{f}\right\}$, or $\widehat{s} \geq \max \left\{\bar{s}_{m}, \bar{s}_{f}\right\}$. To prove it, note that by definition of $\bar{s}_{g}, \Phi_{m}\left(\bar{q} \mid \bar{s}_{m}\right)=\Phi_{f}\left(\bar{q} \mid \bar{s}_{f}\right)=1 / 2$, therefore if $\bar{s}_{m}<\bar{s}_{f}$ we must have $\Phi_{f}(\bar{q} \mid s)<1 / 2<\Phi_{m}(\bar{q} \mid s)$, for all $s \in\left(\bar{s}_{m}, \bar{s}_{f}\right)$; otherwise, if $\bar{s}_{m}>\bar{s}_{f}$ we must have $\Phi_{m}(\bar{q} \mid s)<1 / 2<\Phi_{f}(\bar{q} \mid s)$ for all $s \in\left(\bar{s}_{f}, \bar{s}_{m}\right)$. Hence the crossing of the distributions $\Phi_{m}(\bar{q} \mid \widehat{s})$ and $\Phi(\bar{q} \mid \widehat{s})$ must occur outside of the range $\left(\min \left\{\bar{s}_{m}, \bar{s}_{f}\right\}, \max \left\{\bar{s}_{m}, \bar{s}_{f}\right\}\right)$, that is either (i) $\widehat{s}<\min \left\{\bar{s}_{m}, \bar{s}_{f}\right\}$, or (ii) $\widehat{s}>\max \left\{\bar{s}_{m}, \bar{s}_{f}\right\}$. Case (i) is displayed in Figure 1. ${ }^{2}$ In case (i) both male and female workers with signal $s<\widehat{s}$ are employed in the simple job, and $w\left(s ; \sigma_{\epsilon m}\right)<w\left(s ; \sigma_{\epsilon f}\right)$ holds because of (A.1). But then it must also be the case that $\bar{s}_{m}<\bar{s}_{f}$ because $\Phi_{g}\left(\bar{q} \mid \widehat{s}_{g}\right)<1 / 2$. We need to show that $w\left(s ; \sigma_{\epsilon m}\right)>w\left(s ; \sigma_{\epsilon f}\right)$ for $s>\widehat{s}$. This is immediate from A. 2 if males and females are employed in the same job given $s$, that is, for $s: \widehat{s}<s<\bar{s}_{m}$ or $s>\bar{s}_{f}$. For $\bar{s}_{m}<s<\bar{s}_{f}$, we have (by definition of $\bar{s}_{m}, \bar{s}_{f}$ ) male (female) workers employed in the complex (simple) job. From (A.2) $\vee s: \bar{s}_{m}<s<\bar{s}_{f}$, we have $l\left(1-2 \Phi_{f}(\bar{q} \mid s)\right)<h\left(1-2 \Phi_{m}(\bar{q} \mid s)\right)$ hence $w\left(s ; \sigma_{\epsilon m}\right)>w\left(s ; \sigma_{\epsilon f}\right)$ which completes the proof for case(i). Case (ii) is proved symmetrically: male and females with

[^1]$s \geq \widehat{s}$ are employed in the complex task and receive wages $w\left(s ; \sigma_{\epsilon m}\right)>w\left(s ; \sigma_{\epsilon f}\right)$. Therefore, $\bar{s}_{f}<\bar{s}_{m}$, and wages below $\bar{s}_{m}$ must satisfy $w\left(s ; \sigma_{\epsilon m}\right)<w\left(s ; \sigma_{\epsilon f}\right)$ by an argument similar to that made for case (i).

## B Female and male CEOs and wage dynamics

We extend the model introduced in Section 2 of the main paper. Consider a twoperiod model where signals $s_{1}, s_{2}$ are extracted respectively at the beginning of period 1,2 using the same signaling technology. The two signal errors are drawn independently from distributions that depend on the CEO's gender. We assume that in the first period all CEOs are males, whereas in the second period some firms have a female $\mathrm{CEO}^{3}$. Female CEOs are characterized by a better ability to assess the productivity of female workers, that is, female workers signal is extracted from a more precise distribution, with noise variance $\sigma_{\epsilon F}^{2}<\sigma_{\epsilon f}^{2}$. Symmetrically, female CEOs evaluate male workers' signal with larger noise than male CEOs: $\sigma_{\epsilon M}^{2}>\sigma_{\epsilon m}^{2}$.

Denote a worker's expected ability after the second signal extraction with $q_{2}$, which depends on the gender of the new CEO:

$$
\begin{equation*}
q_{2}\left(s_{1}, s_{2}\right) \equiv E\left(q \mid s_{1}, s_{2}\right)=\left(1-\alpha_{1}-\alpha_{2}\right) \mu+\alpha_{1} s_{1}+\alpha_{2} s_{2} \tag{B.1}
\end{equation*}
$$

where where $G$ is the gender of the second employer, and

$$
\begin{aligned}
\alpha_{1} & =\frac{\sigma^{2} \sigma_{\epsilon G}^{2}}{\left(\sigma_{\epsilon m}^{2}+\sigma^{2}\right)\left(\sigma_{\epsilon G}^{2}+\sigma^{2}\right)-\sigma^{4}} \\
\alpha_{2} & =\frac{\sigma^{2} \sigma_{\epsilon m}^{2}}{\left(\sigma_{\epsilon m}^{2}+\sigma^{2}\right)\left(\sigma_{\epsilon G}^{2}+\sigma^{2}\right)-\sigma^{4}}
\end{aligned}
$$

Note how expected ability depends more strongly on each signal (and less on the other signal and on the unconditional mean), the more precise the signal is. Consider a worker with ability $\tilde{q}$ His/her expected ability (from the employer's point of view - which is directly tied to his/her expected wage) is steeper with respect of actual

[^2]

Figure B.1: Wage distributions of female workers
ability the more precise the new signal is:

$$
\begin{align*}
E\left(q_{2} \mid \tilde{q}\right) & =\left(1-\alpha_{1}-\alpha_{2}\right) \mu+\alpha_{1} E\left(s_{1} \mid \tilde{q}\right)+\alpha_{2} E\left(s_{2} \mid \tilde{q}\right) \\
& =\left(1-\alpha_{1}-\alpha_{2}\right) \mu+\left(\alpha_{1}+\alpha_{2}\right) \tilde{q} \tag{B.2}
\end{align*}
$$

Suppose we observe data after female had the opportunity of being hired as CEOs of a firm, that is, in the context of our model, period 2. To derive the empirical implications derived in the paper, it is sufficient to show that the term $\alpha_{1}+\alpha_{2}$ in B. 2 is greater than $\alpha_{m}$ :

$$
\alpha_{1}+\alpha_{2}=\frac{\sigma^{2}\left(\sigma_{\epsilon m}^{2}+\sigma_{\epsilon G}^{2}\right)}{\sigma^{2}\left(\sigma_{\epsilon G}^{2}+\sigma_{\epsilon m}^{2}\right)+\sigma_{\epsilon m}^{2} \sigma_{\epsilon G}^{2}}>\frac{\sigma^{2}\left(\sigma_{\epsilon m}^{2}+\sigma_{\epsilon G}^{2}\right)}{\sigma^{2}\left(\sigma_{\epsilon G}^{2}+\sigma_{\epsilon m}^{2}\right)+\sigma_{\epsilon m}^{2}\left(\sigma_{\epsilon G}^{2}+\sigma_{\epsilon m}^{2}\right)}=\alpha_{m}
$$

Even in this case, for reasons similar to those implied by Proposition 2, female CEOs are less likely to mis-place female workers. Hence, the higher the share of female workers, the higher the productivity.

## C Descriptive statistics: additional details

Table C.1: Females in the Workforce and Executive Positions, by Industry

| Industry | Non-execs <br> \% female | Executives <br> \% female | $\begin{gathered} \text { CEOs } \\ \text { \% female } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Wood and cork, except furniture | 26.1 | 7.6 | 7.0 |
| Wearing apparel; dressing and dyeing of fur | 73.0 | 6.5 | 3.9 |
| Leather, luggage, handbags, saddlery, harness and footwear | 46.8 | 6.3 | 0.5 |
| Chemicals, Coke, refined petroleum and nuclear fuel | 24.4 | 5.0 | 2.3 |
| Motor vehicles, trailers and semi-trailers | 17.7 | 4.0 | 2.9 |
| Other transport equipment | 6.3 | 3.2 | 1.5 |
| Basic metals | 7.7 | 3.2 | 4.2 |
| Textiles | 45.8 | 3.1 | 3.2 |
| Fabricated metal products, except machinery and equipment | 22.5 | 1.6 | 1.1 |
| Furniture; manufacturing. | 21.1 | 1.4 | 0.0 |
| Pulp, paper and paper products | 18.4 | 1.4 | 0.0 |
| Radio, television and communication equipment and apparatus | 33.2 | 0.6 | 0.6 |
| Office machinery and computers | 33.4 | 0.5 | 0.0 |
| Medical, precision and optical instruments, watches and clocks | 37.6 | 0.3 | 0.0 |

## D Tests of the AKM exogenous mobility assumption

## D. 1 Parameter estimates

| Table D.1: Two-Way Fixed Effects | Regression Resul <br> Coefficient |
| :--- | :---: |
| Variable | 0.0619 |
| Coeffs. on worker characteristics: | -0.0002 |
| Age | -0.0194 |
| Age squared | 0.0002 |
| Age * Female | 0.0051 |
| Age squared * Female | -0.0004 |
| Tenure | -0.0031 |
| Tenure squared | 0.0001 |
| Tenure * Female | 0.0704 |
| Tenure squared * Female | 0.5734 |
| White collar | 0.0007 |
| Executive | 0.0328 |
| White collar * Female | $($ not reported |
| Executives * Female |  |
| Year fixed effects | 0.510 |
| SD of worker effects | 0.153 |
| SD of firm effects | -0.087 |
| Correlation |  |
|  | $18,938,837$ |
| Number of Observations | $1,726,836$ |
| Number of Individual FEs | 453,000 |
| Number of Firm FEs |  |
| F | 39.68 |
| Prob $>$ | 0.000 |
| R-squared | 0.838 |
| Adj. R-squared | 0.817 |
| Root MSE | 0.166 |

The method proposed in Abowd et al. (1999) rests on an assumption of "exogenous mobility" conditional on observables. As discussed at length in Card et al. (2013) (CHK henceforth), violations of this assumption would change the interpretation of the estimated firm effects. Following CHK, we have considered various possible violations of the exogenous mobility assumptions and performed the associated checks
with our data. We describe our analyses below.

## D. 2 Mobility based on the value of worker-firm match

The firm effects estimated in AKM are wage premia paid to all workers in a given firm, irrespective of the workers' idiosyncratic characteristics. However, if the exogenous mobility assumption is violated due to sorting based on the value of a worker-firm match component, and workers change jobs to join firms to which they are better matched, then the wage premium would include a match component that would be specific to each worker-firm pair, and no longer common across all workers in the firm. To test for such sorting, we follow CHK and perform two analyses: first, we look at wage changes for job movers, and second, we compare the AKM regression with a regression including match (worker-firm) fixed effects.

## D.2.1 Wage changes for job movers

Specifically, we considered all job changers in the years 1980-1997 with at least two consecutive years in the old and new firm. We then classified the origin and destination jobs based on the quartiles of the estimated firm effects ${ }^{4}$. We formed sixteen cells based on quartiles of origin and destination, and computed average wages of movers in each cell in the two years before the change and the two years after the change ${ }^{5}$.

[^3]Table D.2: Mean Log Wages Before and After Job Change, by Quartile of AKM Firm Effect at Origin and Destination Firms

| Origin/destination quartile ${ }^{(*)}$ | N. of observations <br> (1) | Mean log wage of movers |  |  |  | C hange from 2 years before to 2 years after |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 years | 1 year | 1 year | 2 years |  |  |
|  |  | before <br> (2) | before <br> (3) | after <br> (4) | after (5) | R aw <br> (6) | $\text { Adjusted }^{\left({ }^{* *)}\right.}$ <br> (7) |
| 1 to 1 | 1,204 | 5.38 | 5.39 | 5.43 | 5.42 | 0.041 | 0.000 |
| 1 to 2 | 1,597 | 5.21 | 5.32 | 5.57 | 5.58 | 0.371 | 0.330 |
| 1 to 3 | 3,253 | 5.34 | 5.34 | 5.74 | 5.79 | 0.446 | 0.405 |
| 1 to 4 | 2,851 | 5.34 | 5.35 | 5.89 | 5.95 | 0.617 | 0.576 |
| 2 to 1 | 1,644 | 5.59 | 5.59 | 5.47 | 5.46 | -0.135 | -0.146 |
| 2 to 2 | 29,913 | 5.88 | 5.87 | 5.87 | 5.89 | 0.011 | 0.000 |
| 2 to 3 | 11,192 | 5.64 | 5.64 | 5.77 | 5.79 | 0.150 | 0.285 |
| 2 to 4 | 5,130 | 5.63 | 5.64 | 5.89 | 5.94 | 0.311 | 0.446 |
| 3 to 1 | 3,298 | 5.73 | 5.71 | 5.43 | 5.23 | -0.500 | -0.552 |
| 3 to 2 | 8,562 | 5.71 | 5.71 | 5.68 | 5.71 | -0.001 | -0.053 |
| 3 to 3 | 49,559 | 5.79 | 5.79 | 5.84 | 5.84 | 0.052 | 0.000 |
| 3 to 4 | 22,071 | 5.87 | 5.87 | 6.00 | 6.02 | 0.141 | 0.089 |
| 4 to 1 | 1,424 | 5.91 | 5.93 | 5.42 | 5.45 | -0.460 | -0.515 |
| 4 to 2 | 2,878 | 5.84 | 5.87 | 5.67 | 5.67 | -0.172 | -0.226 |
| 4 to 3 | 27,566 | 5.89 | 5.88 | 5.86 | 5.87 | -0.019 | -0.073 |
| 4 to 4 | 72,555 | 6.05 | 6.04 | 6.09 | 6.10 | 0.055 | 0.000 |

Entries are average log real weekly earnings for all job changers observed for at least 2 years of prior to a job change, and two years after. (*) Quartiles are based on firm effects estimated with the Abowd-Kramarz-Margolis method. ( ${ }^{* *}$ ) Computed as the mean wage change for the origindestination group, minus the mean change for job movers from the same origin quartile who remain in the same quartile at destination.

Under the exogenous mobility assumption, workers who move from a "low firmeffect" firm to a "high firm-effect" firm should experience a wage increase and workers who move in the opposite direction a wage reduction. Moreover, the wage gain for the former group and the wage loss for the latter should be roughly symmetrical - the "firm effect" gained by one group should be roughly equal to that gained by the other group. Moreover, workers who transition between firms that pay similar wages should not experience any wage change. If, instead, the exogenous mobility assumption
is violated because workers change firms based on the value of the idiosyncratic match component, then job changes will be associated with wage increases even for moves between firms with similar estimated firm effects, and possibly (if the match component is sufficiently important) even for moves from high- to low-estimated-firm-effect firms. We report the results of our exercise in Table D.2, together with the number of movers in each of the sixteen cells, and a trend-adjusted wage change, again for each job change cell.

The table shows two important facts: first, workers who move from a low-firmeffect quartile to a high-firm-effect quartile experience wage increases that are monotonically increasing with the gap between origin and destination quartiles, and workers who move in the opposite direction experience similar wage declines.

The top panel of Figure D. 1 shows the wage profiles for workers leaving the first and fourth quartiles, and illustrates the approximate symmetry of the wage gains and losses of those who move from the first quartile up and from the fourth quartile down, respectively. The bottom panel of Figure D. 1 shows that the wages of job changers who stay within the same quartile group are essentially flat between the two years before and the two years after the move. The lack of a mobility premium for the job changers who stay in the same firm-effect quartile suggests that idiosyncratic worker-firm match effects are not the primary driver of job mobility, and the symmetry between wage increases for movers from low to high quartiles and the wage decreases for movers in the opposite direction are as predicted by the AKM model.

## D.2.2 Comparison of AKM and match fixed effects regression

If match effects are important, a model with worker-firm fixed effects should outperform the AKM model in terms of statistical fit. We run a regression with match fixed effects, and compare it with the AKM regression (the results are reported in Table D. 3 ).

We find that the match effects model has an adjusted R2 that is only slightly higher ( 0.85 vs. 0.82 ), and a Root MSE only slightly lower ( 0.159 vs. 0.166 ) than those from the AKM regression. Thus, although these results indicate that a match component in wages is present, the improvement in fit relatively to the AKM model is only modest.

Figure D.1: Mean wages of job changers classified by quartile of the AKM firm effect


Top panel: workers leaving quartile 1 and 4 . Bottom panel: workers moving to the same quartile. The sample includes all job changers in the years 1980-1997 with at least two observations prior to the move and two observations after the move and only one transition in the period considered

Table D.3: Worker-Firm Match Fixed Effects Regression

| Number of Observations | $18,938,837$ |  |
| :--- | :---: | ---: |
| Number of Match FE s | $3,949,483$ |  |
|  |  |  |
| F | 79741.1 |  |
| Prob > F | 0.000 |  |
| R -squared | 0.882 |  |
| Adj. R -squared | 0.851 |  |
| R oot MSE | 0.159 |  |
|  |  |  |
| C oeffs. (std. err.) on worker characteristics: |  |  |
| Age | 0.0324 | $(0.0001)$ |
| Age squared | -0.0001 | $(0.0000)$ |
| Age * Female | -0.0221 | $(0.0002)$ |
| Age squared * Female | 0.0002 | $(0.0000)$ |
| White collar | 0.0430 | $(0.000)$ |
| Executive | 0.4329 | $(0.001)$ |
| White collar * F emale | -0.0033 | $(0.001)$ |
| Executives * Female | 0.0293 | $(0.007)$ |
| Y ear effects | (not reported) |  |
|  |  |  |

The sample includes all firms and all workers in the largest connected group, years 1980-1997. The regression includes worker-firm match fixed effects.

## D. 3 Drift in worker-specific ability or fluctuations in the transitory component of wages predicting firm-to-firm transitions

As illustrated in Card et al. (2013), if workers' ability is revealed slowly over time and certain talents are valued differently at different firms, workers who turn out to be more productive than expected will receive wage increases at their original employer, and will also be more likely to move to a firm where their talents will receive higher compensation. This too would be a violation of the exogenous mobility assumption and bias the estimates of the firm effects. Similarly, if the idiosyncratic component of wages is systematically associated with transitions between high-wage and low-wage firms, that would also violate the exogenous mobility assumption. If that is the case, the wages of movers will show an upward trend in the years before the move.

Figure D.2: Mean Residual by Estimated Firm/Worker Fixed Effect Decile


## D.3.1 Trends in wages of movers prior to the move.

Inspection of columns (2) and (3) in Table D. 1 reveals that wages of movers show no systematic trend in the years prior to their move. In other words, we find no evidence that transitory wage fluctuations predict mobility patterns.

## D.3.2 Examination of residuals

We have also examined the residuals from the AKM regression. Specifically, following again CHK we formed deciles based on the estimated worker effects and firm effects, and computed average residuals in each of the 100 worker x firm decile cell, to explore whether there are any notable systematic patterns in the distribution of residuals for particular types of matches. The mean residuals by cell are shown in Figure D.2. The mean residuals are generally small. In 84 cases out of 100 , the mean residual is smaller than $1 \%$ in magnitude. In only 5 cases the mean residual is larger than $1.5 \%$, with the largest deviation being $4.4 \%$. The largest deviations appear among the lowest-decile workers and the lowest-decile firms (similar to what found by CHK in Germany), and some deviations from the AKM assumption are also found among the lowest-decile workers employed at the highest-decile firms. However, as noted above, the deviations are only a few, and they are small in magnitude.

The tests that we performed indicate that the exogenous mobility assumption is roughly met in our data. There is some evidence that worker-firm match effects are present, but a model including unrestricted match effects delivers only a very modest improved statistical fit compared to the AKM model, and the departures from the exogenous mobility assumption suggested by the AKM residuals are small in magnitude. On the other hand, the symmetry of wage gains upon moving from a low-firm-effect to a high-firm-effect firm and the wage losses from moving in the opposite direction, and the absence of wage gains for workers who move between firms with similar estimated firm effects suggest that match effects are not a primary driver of mobility. We conclude that in the Italian, manufacturing sector context, the additively separable firm and worker effects obtained from the AKM model can be taken as reasonable measures of the unobservable worker and firm components of wages.

## E Parameter estimates on Benchmark Specification

We report the estimation results for the benchmark specification. Results for all robustness specifications are available in Appendix H.

All the reported standard errors are computed by a bootstrapping procedure. We need to compute standard errors by bootstrapping on specifications that include controls for unobserved worker and CEO ability (the CEO and worker fixed effects) because these variables are generated from the first step. Standard errors in the first stage can be computed only by bootstrap (AKM.) We perform the bootstrapping procedure by resampling at the firm level and by resampling separately firms that never had a female CEO and firms that had a female CEO at least once. This procedure is meant to produce standard errors that are clustered at firm level and stratified by female CEO dummy. Since stratification at the first step may generate samples with zero or very few firms with female CEOs at the second step, identification of the parameters of interest may not be attained for some bootstrap runs. Therefore, we computed standard errors using only bootstraps with more than 10 firms with a female CEO in the second stage. We run the procedure until we reach 300 valid replications.
Table A.1: Full set of estimates on female wages, benchmark specification

| Dependent $\qquad$ | Standard |  |  |  | Av | ages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | dian |  |  |  |  | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | $\begin{gathered} 0.475 \\ (0.122) \end{gathered}$ | $\begin{aligned} & -0.030 \\ & (0.022) \end{aligned}$ | $\begin{gathered} 0.078 \\ (0.028) \end{gathered}$ | $\begin{aligned} & -0.043 \\ & (0.037) \end{aligned}$ | $\begin{gathered} 0.167 \\ (0.063) \end{gathered}$ | $\begin{gathered} -0.031 \\ (0.029) \end{gathered}$ | $\begin{aligned} & -0.026 \\ & (0.022) \end{aligned}$ | $\begin{gathered} 0.006 \\ (0.030) \end{gathered}$ | $\begin{gathered} 0.104 \\ (0.035) \end{gathered}$ |
| CEO age | $\begin{gathered} 0.076 \\ (0.425) \end{gathered}$ | $\begin{gathered} 0.074 \\ (0.067) \end{gathered}$ | $\begin{gathered} 0.044 \\ (0.092) \end{gathered}$ | $\begin{aligned} & -0.019 \\ & (0.152) \end{aligned}$ | $\begin{gathered} 0.065 \\ (0.179) \end{gathered}$ | $\begin{gathered} 0.059 \\ (0.090) \end{gathered}$ | $\begin{gathered} 0.092 \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.045 \\ (0.063) \end{gathered}$ | $\begin{gathered} 0.043 \\ (0.115) \end{gathered}$ |
| CEO tenure | $\begin{gathered} 0.006 \\ (0.004) \end{gathered}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.000 \\ & (0.001) \end{aligned}$ | $\begin{gathered} 0.002 \\ (0.002) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.002) \end{gathered}$ | $\begin{aligned} & -0.000 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ | $\begin{gathered} 0.000 \\ (0.001) \end{gathered}$ |
| CEO < 1980 | $\begin{gathered} -0.011 \\ (0.056) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.012) \end{gathered}$ | $\begin{gathered} 0.011 \\ (0.018) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.027) \end{gathered}$ | $\begin{gathered} 0.014 \\ (0.012) \end{gathered}$ | $\begin{gathered} 0.017 \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.014 \\ (0.008) \end{gathered}$ | $\begin{gathered} 0.014 \\ (0.015) \end{gathered}$ |
| CEO fixed eff. | $\begin{gathered} 0.049 \\ (0.054) \end{gathered}$ | $\begin{gathered} 0.013 \\ (0.008) \end{gathered}$ | $\begin{gathered} 0.015 \\ (0.011) \end{gathered}$ | $\begin{aligned} & -0.005 \\ & (0.021) \end{aligned}$ | $\begin{gathered} 0.024 \\ (0.021) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.013) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.008) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.017 \\ (0.013) \end{gathered}$ |
| Avg. wrk. age | $\begin{gathered} 0.097 \\ (0.067) \end{gathered}$ | $\begin{gathered} 0.054 \\ (0.035) \end{gathered}$ | $\begin{gathered} 0.068 \\ (0.042) \end{gathered}$ | $\begin{gathered} 0.084 \\ (0.058) \end{gathered}$ | $\begin{gathered} 0.078 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.065 \\ (0.043) \end{gathered}$ | $\begin{gathered} 0.050 \\ (0.032) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.033) \end{gathered}$ | $\begin{gathered} 0.072 \\ (0.045) \end{gathered}$ |
| Avg. wrk. tenure | $\begin{gathered} -0.026 \\ (0.017) \end{gathered}$ | $\begin{aligned} & -0.002 \\ & (0.003) \end{aligned}$ | $\begin{aligned} & -0.007 \\ & (0.004) \end{aligned}$ | $\begin{aligned} & -0.006 \\ & (0.009) \end{aligned}$ | $\begin{aligned} & -0.011 \\ & (0.007) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.005) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.003) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.003) \end{aligned}$ | $\begin{aligned} & -0.008 \\ & (0.005) \end{aligned}$ |
| \% white collars | $\begin{gathered} 0.381 \\ (0.401) \end{gathered}$ | $\begin{aligned} & -0.131 \\ & (0.070) \end{aligned}$ | $\begin{aligned} & -0.014 \\ & (0.103) \end{aligned}$ | $\begin{aligned} & -0.502 \\ & (0.201) \end{aligned}$ | $\begin{gathered} 0.092 \\ (0.187) \end{gathered}$ | $\begin{aligned} & -0.286 \\ & (0.111) \end{aligned}$ | $\begin{aligned} & -0.049 \\ & (0.067) \end{aligned}$ | $\begin{aligned} & -0.038 \\ & (0.072) \end{aligned}$ | $\begin{gathered} 0.019 \\ (0.125) \end{gathered}$ |
| Fraction female | $\begin{gathered} 0.227 \\ (0.488) \end{gathered}$ | $\begin{aligned} & -0.595 \\ & (0.111) \end{aligned}$ | $\begin{aligned} & -0.577 \\ & (0.126) \end{aligned}$ | $\begin{aligned} & -0.623 \\ & (0.341) \end{aligned}$ | $\begin{aligned} & -0.435 \\ & (0.188) \end{aligned}$ | $\begin{aligned} & -0.661 \\ & (0.182) \end{aligned}$ | $\begin{aligned} & -0.556 \\ & (0.101) \end{aligned}$ | $\begin{aligned} & -0.541 \\ & (0.125) \end{aligned}$ | $\begin{aligned} & -0.572 \\ & (0.145) \end{aligned}$ |
| Avg. wkr. F.E. | $\begin{gathered} 1.960 \\ (0.714) \end{gathered}$ | $\begin{gathered} 1.250 \\ (0.156) \end{gathered}$ | $\begin{gathered} 1.577 \\ (0.190) \end{gathered}$ | $\begin{gathered} 1.897 \\ (0.440) \end{gathered}$ | $\begin{gathered} 1.764 \\ (0.329) \end{gathered}$ | $\begin{gathered} 1.474 \\ (0.258) \end{gathered}$ | $\begin{gathered} 1.130 \\ (0.136) \end{gathered}$ | $\begin{gathered} 1.181 \\ (0.169) \end{gathered}$ | $\begin{gathered} 1.680 \\ (0.232) \end{gathered}$ |
| $R^{2}$ : Between | 0.153 | 0.222 | 0.367 | 0.081 | 0.263 | 0.115 | 0.253 | 0.298 | 0.351 |
| Within | 0.100 | 0.448 | 0.500 | 0.086 | 0.277 | 0.270 | 0.515 | 0.528 | 0.443 |
| Overall | 0.105 | 0.413 | 0.486 | 0.070 | 0.273 | 0.222 | 0.481 | 0.507 | 0.432 |

[^4]Table A.2: Full set of estimates on male wages, benchmark specification

| Dependent | Standard |  |  |  | Aver | ages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | dian |  |  |  |  | tiles |  |
| Expl. variable | (1) | Below <br> (2) | Above (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | $\begin{gathered} -0.107 \\ (0.094) \end{gathered}$ | $\begin{gathered} 0.021 \\ (0.018) \end{gathered}$ | $\begin{aligned} & -0.027 \\ & (0.031) \end{aligned}$ | $\begin{gathered} 0.029 \\ (0.022) \end{gathered}$ | $\begin{aligned} & -0.069 \\ & (0.057) \end{aligned}$ | $\begin{gathered} 0.031 \\ (0.018) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.018) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.023) \end{gathered}$ | $\begin{gathered} -0.039 \\ (0.038) \end{gathered}$ |
| CEO age | $\begin{gathered} 1.815 \\ (0.869) \end{gathered}$ | $\begin{gathered} 0.046 \\ (0.061) \end{gathered}$ | $\begin{gathered} 0.317 \\ (0.197) \end{gathered}$ | $\begin{gathered} 0.069 \\ (0.093) \end{gathered}$ | $\begin{gathered} 0.787 \\ (0.412) \end{gathered}$ | $\begin{gathered} 0.053 \\ (0.075) \end{gathered}$ | $\begin{gathered} 0.041 \\ (0.060) \end{gathered}$ | $\begin{gathered} 0.056 \\ (0.083) \end{gathered}$ | $\begin{gathered} 0.433 \\ (0.254) \end{gathered}$ |
| CEO tenure | $\begin{aligned} & -0.003 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.000) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.000) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ |
| CEO < 1980 | $\begin{gathered} 0.024 \\ (0.038) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.016 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.008) \end{gathered}$ | $\begin{gathered} 0.026 \\ (0.019) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.007 \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.018 \\ (0.012) \end{gathered}$ |
| CEO fixed eff. | $\begin{gathered} 0.328 \\ (0.032) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.053 \\ (0.012) \end{gathered}$ | $\begin{gathered} 0.019 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.138 \\ (0.019) \end{gathered}$ | $\begin{gathered} 0.014 \\ (0.008) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.074 \\ (0.014) \end{gathered}$ |
| Avg. wrk. age | $\begin{gathered} 0.074 \\ (0.056) \end{gathered}$ | $\begin{gathered} 0.048 \\ (0.037) \end{gathered}$ | $\begin{gathered} 0.074 \\ (0.047) \end{gathered}$ | $\begin{gathered} 0.048 \\ (0.040) \end{gathered}$ | $\begin{gathered} 0.071 \\ (0.046) \end{gathered}$ | $\begin{gathered} 0.046 \\ (0.037) \end{gathered}$ | $\begin{gathered} 0.049 \\ (0.038) \end{gathered}$ | $\begin{gathered} 0.061 \\ (0.044) \end{gathered}$ | $\begin{gathered} 0.079 \\ (0.049) \end{gathered}$ |
| Avg. wrk. tenure | $\begin{gathered} 0.003 \\ (0.010) \end{gathered}$ | $\begin{aligned} & -0.003 \\ & (0.004) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (0.003) \end{aligned}$ | $\begin{aligned} & -0.000 \\ & (0.005) \end{aligned}$ | $\begin{gathered} 0.000 \\ (0.006) \end{gathered}$ | $\begin{aligned} & -0.002 \\ & (0.004) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (0.004) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (0.004) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (0.004) \end{aligned}$ |
| \% white collars | $\begin{gathered} 0.120 \\ (0.196) \end{gathered}$ | $\begin{gathered} 0.095 \\ (0.090) \end{gathered}$ | $\begin{gathered} 0.196 \\ (0.089) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.103) \end{gathered}$ | $\begin{gathered} 0.150 \\ (0.131) \end{gathered}$ | $\begin{gathered} 0.035 \\ (0.092) \end{gathered}$ | $\begin{gathered} 0.127 \\ (0.092) \end{gathered}$ | $\begin{gathered} 0.208 \\ (0.097) \end{gathered}$ | $\begin{gathered} 0.204 \\ (0.103) \end{gathered}$ |
| Fraction female | $\begin{gathered} 0.219 \\ (0.273) \end{gathered}$ | $\begin{aligned} & -0.181 \\ & (0.139) \end{aligned}$ | $\begin{gathered} 0.063 \\ (0.134) \end{gathered}$ | $\begin{aligned} & -0.217 \\ & (0.142) \end{aligned}$ | $\begin{gathered} 0.212 \\ (0.186) \end{gathered}$ | $\begin{aligned} & -0.186 \\ & (0.132) \end{aligned}$ | $\begin{aligned} & -0.176 \\ & (0.145) \end{aligned}$ | $\begin{aligned} & -0.083 \\ & (0.162) \end{aligned}$ | $\begin{gathered} 0.121 \\ (0.150) \end{gathered}$ |
| Avg. wkr. F.E. | $\begin{gathered} 1.968 \\ (0.467) \end{gathered}$ | $\begin{gathered} 1.021 \\ (0.364) \end{gathered}$ | $\begin{gathered} 1.796 \\ (0.190) \end{gathered}$ | $\begin{gathered} 1.008 \\ (0.397) \end{gathered}$ | $\begin{gathered} 1.773 \\ (0.240) \end{gathered}$ | $\begin{gathered} 0.946 \\ (0.368) \end{gathered}$ | $\begin{gathered} 1.051 \\ (0.369) \end{gathered}$ | $\begin{gathered} 1.431 \\ (0.364) \end{gathered}$ | $\begin{gathered} 1.921 \\ (0.179) \end{gathered}$ |
| $R^{2}$ : Between | 0.246 | 0.399 | 0.470 | 0.223 | 0.331 | 0.299 | 0.410 | 0.437 | 0.439 |
| Within | 0.293 | 0.522 | 0.426 | 0.361 | 0.265 | 0.434 | 0.537 | 0.507 | 0.383 |
| Overall | 0.275 | 0.509 | 0.427 | 0.332 | 0.264 | 0.415 | 0.525 | 0.502 | 0.384 |

20 industry dummies, 4 firm-size dummies, year dummies, industry-specific trends, and firm fixed effects.

Table A.3: Estimates on Firm-Level Performance, benchmark specification

| $\begin{gathered} \text { Dependent } \\ \text { variable } \\ \text { variable } \downarrow \end{gathered}$ | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) |  | (3) |  | (5) | (6) |
| Female CEO | $\begin{gathered} 0.033 \\ (0.039) \end{gathered}$ | $\begin{gathered} -0.120 \\ (0.045) \end{gathered}$ | $\begin{aligned} & -0.046 \\ & (0.038) \end{aligned}$ | $\begin{gathered} -0.245 \\ (0.041) \end{gathered}$ | $\begin{gathered} -0.059 \\ (0.029) \end{gathered}$ | $\begin{gathered} -0.213 \\ (0.039) \end{gathered}$ |
| Interaction |  | $\begin{gathered} 0.610 \\ (0.142) \end{gathered}$ |  | $\begin{gathered} 0.795 \\ (0.169) \end{gathered}$ |  | $\begin{gathered} 0.616 \\ (0.172) \end{gathered}$ |
| CEO age | $\begin{gathered} 0.212 \\ (0.154) \end{gathered}$ | $\begin{gathered} 0.209 \\ (0.152) \end{gathered}$ | $\begin{gathered} 0.442 \\ (0.162) \end{gathered}$ | $\begin{gathered} 0.438 \\ (0.160) \end{gathered}$ | $\begin{gathered} 0.320 \\ (0.146) \end{gathered}$ | $\begin{gathered} 0.316 \\ (0.145) \end{gathered}$ |
| CEO tenure | $\begin{gathered} -0.003 \\ (0.001) \end{gathered}$ | $\begin{gathered} -0.003 \\ (0.001) \end{gathered}$ | $\begin{aligned} & -0.002 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.001) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.001) \end{aligned}$ |
| CEO < 1980 | $\begin{gathered} 0.028 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.028 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.015) \end{gathered}$ | $\begin{gathered} 0.011 \\ (0.015) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.015) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.015) \end{gathered}$ |
| CEO fixed eff. | $\begin{gathered} 0.017 \\ (0.019) \end{gathered}$ | $\begin{gathered} 0.017 \\ (0.018) \end{gathered}$ | $\begin{gathered} 0.065 \\ (0.017) \end{gathered}$ | $\begin{gathered} 0.064 \\ (0.017) \end{gathered}$ | $\begin{gathered} 0.046 \\ (0.017) \end{gathered}$ | $\begin{gathered} 0.045 \\ (0.017) \end{gathered}$ |
| Avg. Wkr. age | $\begin{gathered} 0.028 \\ (0.027) \end{gathered}$ | $\begin{gathered} 0.031 \\ (0.028) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.031) \end{gathered}$ | $\begin{gathered} 0.055 \\ (0.033) \end{gathered}$ | $\begin{gathered} 0.055 \\ (0.029) \end{gathered}$ | $\begin{gathered} 0.058 \\ (0.029) \end{gathered}$ |
| Avg wkr. tenure | $\begin{gathered} 0.005 \\ (0.008) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.008) \end{gathered}$ | $\begin{gathered} -0.013 \\ (0.007) \end{gathered}$ | $\begin{aligned} & -0.014 \\ & (0.007) \end{aligned}$ | $\begin{gathered} -0.030 \\ (0.007) \end{gathered}$ | $\begin{aligned} & -0.030 \\ & (0.007) \end{aligned}$ |
| \% white collars | $\begin{gathered} 0.269 \\ (0.135) \end{gathered}$ | $\begin{gathered} 0.254 \\ (0.136) \end{gathered}$ | $\begin{aligned} & -0.117 \\ & (0.154) \end{aligned}$ | $\begin{aligned} & -0.137 \\ & (0.155) \end{aligned}$ | $\begin{aligned} & -0.082 \\ & (0.154) \end{aligned}$ | $\begin{gathered} -0.098 \\ (0.154) \end{gathered}$ |
| Fraction female | $\begin{gathered} -0.313 \\ (0.234) \end{gathered}$ | $\begin{gathered} -0.390 \\ (0.242) \end{gathered}$ | $\begin{aligned} & -0.496 \\ & (0.157) \end{aligned}$ | $\begin{aligned} & -0.596 \\ & (0.158) \end{aligned}$ | $\begin{gathered} -0.478 \\ (0.164) \end{gathered}$ | $\begin{gathered} -0.556 \\ (0.161) \end{gathered}$ |
| Avg. wkr. F.E. | $\begin{gathered} 1.217 \\ (0.267) \end{gathered}$ | $\begin{gathered} 1.284 \\ (0.264) \end{gathered}$ | $\begin{gathered} 1.636 \\ (0.299) \end{gathered}$ | $\begin{gathered} 1.724 \\ (0.305) \end{gathered}$ | $\begin{gathered} 1.438 \\ (0.305) \end{gathered}$ | $\begin{gathered} 1.506 \\ (0.299) \end{gathered}$ |
| $R^{2}$ : Between | 0.590 | 0.592 | 0.218 | 0.222 | 0.179 | 0.182 |
| Within | 0.013 | 0.015 | 0.044 | 0.055 | 0.270 | 0.268 |
| Overall | 0.070 | 0.073 | 0.070 | 0.081 | 0.248 | 0.247 |

Dependent variables are in logs. Boostrapped standard errors in parentheses; see text for details. Additional controls: 20 region dummies, 20 industry dummies, 4 firm-size dummies, year dummies, industry-specific trends, and firm fixed effects.

## F Additional Specifications

Note to all tables: Firms fixed-effects regressions. Dependent variables are in logs. Number of observations: 2,340 ( 234 Firms, 10 years). P-values are computed using bootstrapped standard errors with 300 replications.

## F. 1 Computation of CEO and Executives fixed effects.

The CEO and executive fixed effects are estimated in the two-way fixed effects model using only the wages they received when they were executives and CEOs. We made this choice because we are interested in proxying their ability as executives and not as regular employees. Using their entire wage history has also the additional disadvantage of generating a downward bias on the fixed effects of individuals that were executives only for part of the observation period.

Still - as a robustness check - we also estimated the CEO and executive fixed effects using their entire wage history and we have re-estimated our benchmark specifications using them. The results, reported in Table A.1, are very similar to those in the paper. The first and third row report our Benchmark specification; the second and fourth row report the estimation results obtained by running the same specification on the same data but using the CEO fixed effects estimated from their entire wage history.

Table A.1: Impact of female leadership on moments of the firm-level female wage distributions

| Dependent variable: | Std. <br> dev. <br> (1) | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below | Above |  |  | 1 | 2 | 3 | 4 |
|  |  | (2) | (3) |  | (5) | $6)$ | (7) | (8) | (9) |
| (a) Female: Benchmark |  |  |  |  |  |  |  |  |  |
| coefficient | 0.475 | -0.030 | 0.078 | -0.043 | 0.167 | -0.031 | -0.026 | 0.006 | 0.104 |
| 1-tail p-value | 0.000 | 0.090 | 0.003 | 0.124 | 0.004 | 0.147 | 0.112 | 0.424 | 0.001 |
| (FE) Female: Alternative CEO fixed effects definition |  |  |  |  |  |  |  |  |  |
| coefficient | 0.445 | -0.038 | 0.07 | -0.040 | 0.156 | -0.036 | -0.036 | -0.001 | 0.095 |
| 1-tail p-value | 0.000 | 0.034 | 0.011 | 0.138 | 0.008 | 0.091 | 0.038 | 0.490 | 0.005 |
| (a) Male: Benchmark |  |  |  |  |  |  |  |  |  |
| coefficient | -0.107 | 0.021 | -0.027 | 0.029 | -0.069 | 0.031 | 0.016 | 0.01 | -0.039 |
| 1-tail p-value | 0.130 | 0.118 | 0.188 | 0.091 | 0.116 | 0.047 | 0.193 | 0.333 | 0.148 |
| (FE) Male: Alternative CEO fixed effects definition |  |  |  |  |  |  |  |  |  |
| coefficient | -0.284 | 0.017 | -0.056 | 0.018 | -0.142 | 0.023 | 0.013 | 0.008 | -0.079 |
| 1-tail p-value | 0.001 | 0.142 | 0.030 | 0.192 | 0.007 | 0.085 | 0.207 | 0.341 | 0.016 |

## F. 2 Different measures of female leadership: female executives dummies

Reported below are the original specification (e) with only the proportion of female executives at the top of the table. Specifications (D1-D2) show the effects of dummies equal 1 if the proportion of female executives is, respectively, at least $50 \%$ or at least $30 \%$. Specification (D3) shows the impact of a dummy equal 1 if at least one female executive is present at the firm. Specification (D4) includes dummies for various levels of proportions of females executives together (the omitted category here is the set of firms without female executives).

Looking at the effect on the female wage distribution, we find that the main results are broadly confirmed on the 'at least $50 \backslash \%$ ' and 'at least $30 \backslash \%$ ' dummies but they are not on the 'at least one' dummy. We think the lack of impact of the 'at least one' dummy may indicate that one executive among many may not be enough
to change firms' policies. This may simply be a size effect: the average size of firms with at least one female executive is 1,356 workers so the just one female executive cannot have a significant impact on the firm. It may also indicate the presence of "tokenism" (Niemann (2016); Smith and Parrotta (2015)), i.e., the promotion of women to executive roles in order to satisfy some quota or P.R. consideration but without conferring them real decision power. If this is the case, even women in smaller firms may not be very effective in influencing workers reallocation and firms performance. For these reasons, we believe that our specification using the percentage of female executives (which normalizes by size) is preferable.

Table A.2: Impact of female leadership on moments of the firm-level female wage distributions

| Dependent variable: | Std dev. (1) | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below | Above | 1 | 10 | 1 | 2 | 3 | 4 |
|  |  | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

(e) Different measure of female leadership: fraction of female executives

| Coefficient | 2.108 | -0.036 | 0.310 | -0.114 | 0.789 | -0.053 | -0.022 | -0.007 | 0.421 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.188 | 0.000 | 0.109 | 0.000 | 0.172 | 0.286 | 0.429 | 0.000 |

(D1) Different measure of female leadership: at least 50 percent female executives

| Coefficient | 0.817 | -0.023 | 0.093 | -0.037 | 0.235 | -0.033 | -0.026 | -0.021 | 0.125 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.003 | 0.140 | 0.023 | 0.250 | 0.010 | 0.190 | 0.137 | 0.317 | 0.023 |

(D2) Different measure of female leadership: at least 30 percent female executives

| Coefficient | 0.475 | -0.030 | 0.078 | -0.043 | 0.167 | -0.031 | -0.026 | 0.006 | 0.104 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.087 | 0.000 | 0.143 | 0.003 | 0.147 | 0.093 | 0.427 | 0.000 |

(D3) Different measure of female leadership: at least one female executives

| Coefficient | 0.531 | 0.006 | 0.078 | -0.006 | 0.204 | 0.004 | 0.008 | 0.010 | 0.107 |
| ---: | :--- | :--- | :--- | ---: | ---: | ---: | :--- | :--- | :--- |
| 1-tail P-value | 0.000 | 0.473 | 0.000 | 0.333 | 0.000 | 0.543 | 0.407 | 0.237 | 0.000 |

(D4) Different measure of female leadership: \% female executives dummies)

| Less than $10 \%$ | 0.402 | 0.009 | 0.055 | 0.004 | 0.142 | 0.008 | 0.010 | 0.012 | 0.075 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.143 | 0.000 | 0.393 | 0.000 | 0.223 | 0.130 | 0.057 | 0.000 |
| 10 to $30 \%$ | 0.621 | 0.007 | 0.095 | -0.013 | 0.256 | 0.002 | 0.011 | 0.008 | 0.132 |
| 1-tail P-value | 0.000 | 0.343 | 0.000 | 0.313 | 0.000 | 0.427 | 0.253 | 0.293 | 0.000 |
| More than $30 \%$ | 0.896 | -0.015 | 0.137 | -0.027 | 0.334 | -0.015 | -0.015 | 0.007 | 0.189 |
| 1-tail P-value | 0.000 | 0.187 | 0.000 | 0.317 | 0.000 | 0.327 | 0.153 | 0.330 | 0.000 | (omitted category: no female executives)

Table A.3: Impact of female leadership on moments of the firm-level male wage distributions

| Dependent variable: | Std dev. <br> (1) | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below | Above | 1 | 10 | 1 | 2 | 3 | 4 |
|  |  | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

(e) Different measure of female leadership: fraction of female executives

| Coefficient | -0.232 | 0.008 | -0.091 | -0.024 | -0.203 | -0.004 | 0.016 | 0.004 | -0.128 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.132 | 0.409 | 0.067 | 0.352 | 0.039 | 0.461 | 0.303 | 0.450 | 0.048 |

(D1) Different measure of female leadership: at least 50 percent female executives

| Coefficient | -0.158 | -0.005 | -0.088 | -0.012 | -0.150 | -0.003 | -0.006 | -0.024 | -0.116 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.210 | 0.623 | 0.107 | 0.610 | 0.067 | 0.657 | 0.557 | 0.353 | 0.087 |

(D2) Different measure of female leadership: at least 30 percent female executives

| Coefficient | -0.107 | 0.021 | -0.027 | 0.029 | -0.069 | 0.031 | 0.016 | 0.010 | -0.039 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.210 | 0.020 | 0.307 | 0.030 | 0.173 | 0.007 | 0.080 | 0.183 | 0.267 |

(D3) Different measure of female leadership: at least one female executives

| Coefficient | 0.013 | 0.007 | 0.014 | 0.004 | 0.019 | 0.004 | 0.009 | 0.010 | 0.017 |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1-tail P-value | 0.337 | 0.060 | 0.220 | 0.207 | 0.290 | 0.153 | 0.080 | 0.100 | 0.237 |

(D4) Different measure of female leadership: \% female executives dummies)

| Less than $10 \%$ | 0.011 | 0.008 | 0.019 | 0.003 | 0.030 | 0.006 | 0.009 | 0.008 | 0.024 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.317 | 0.113 | 0.040 | 0.383 | 0.037 | 0.230 | 0.123 | 0.130 | 0.033 |
| 10 to $30 \%$ | 0.027 | 0.008 | 0.018 | 0.007 | 0.023 | 0.004 | 0.010 | 0.013 | 0.021 |
| 1-tail P-value | 0.140 | 0.087 | 0.007 | 0.150 | 0.053 | 0.250 | 0.070 | 0.043 | 0.013 |
| More than $30 \%$ | -0.051 | 0.003 | -0.037 | -0.007 | -0.076 | -0.002 | 0.006 | 0.002 | -0.052 |
| 1-tail P-value | 0.527 | 0.310 | 0.160 | 0.470 | 0.103 | 0.533 | 0.213 | 0.317 | 0.113 |

(omitted category: no female executives)

Table A.4: Impact of female leadership on firms' performance Dependent $\rightarrow$ | $\substack{\text { Sales per } \\ \text { employee } \\ (1)}$ |
| :---: |

| Value added |
| :--- |
| per employee |
| $(3)$ | TFP

(5)
(6)
(e) Different measure of female leadership: fraction of female executives

| Female leadership | 0.025 | -0.322 | -0.208 | -0.429 | -0.236 | -0.413 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2-tail P-value | 0.794 | 0.097 | 0.081 | 0.052 | 0.060 | 0.082 |
| Interaction |  | 1.098 |  | 0.697 |  | 0.559 |
| 1-tail P-value |  | 0.007 |  | 0.083 |  | 0.146 |

(D1) Different measure of female leadership: at least $50 \%$ female executives

| Female leadership | 0.046 | -0.028 | -0.025 | -0.076 | -0.070 | -0.105 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Interaction |  | 0.342 |  | 0.235 |  | 0.163 |
| 1-tail P-value |  | 0.033 |  | 0.093 |  | 0.103 |

(D2) Different measure of female leadership: at least $30 \%$ female executives

| Female leadership | 0.099 | 0.070 | -0.014 | -0.035 | -0.056 | -0.069 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Interaction |  | 0.255 |  | 0.192 |  | 0.119 |
| 1-tail P-value |  | 0.067 |  | 0.107 |  | 0.123 |

(D3) Different measure of female leadership: at least one female executives

| Female leadership | 0.009 | 0.002 | -0.052 | -0.056 | -0.039 | -0.041 |
| :--- | :--- | :--- | :--- | :---: | :--- | :---: |
| Interaction |  | 0.313 |  | 0.217 |  | 0.101 |
| 1-tail P-value |  | 0.027 |  | 0.057 |  | 0.153 |

(D4) Different measure of female leadership: \% female executives dummies)

| (a) Less than $10 \%$ | 0.014 | 0.043 | -0.072 | -0.004 | -0.052 | 0.002 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2-tail P-value | 0.598 | 0.329 | 0.096 | 0.964 | 0.250 | 0.975 |
| (b) 10 to $30 \%$ | -0.013 | -0.119 | -0.030 | -0.040 | -0.018 | -0.021 |
| 1-tail P-value | 0.662 | 0.061 | 0.340 | 0.420 | 0.607 | 0.687 |
| (c) More than $30 \%$ | 0.092 | -0.042 | -0.030 | -0.189 | -0.066 | -0.198 |
| 1-tail P-value | 0.083 | 0.781 | 0.688 | 0.231 | 0.374 | 0.215 |
| Interaction with (a) |  | -0.107 |  | -0.257 |  | -0.204 |
| 1-tail P-value |  | 0.733 |  | 0.733 |  | 0.687 |
| Interaction with (b) |  | 0.298 |  | -0.014 |  | -0.024 |
| 1-tail P-value |  | 0.023 |  | 0.497 |  | 0.513 |
| Interaction with (c) |  | 0.311 |  | 0.430 |  | 0.363 |
| 1-tail P-value |  | 0.163 |  | 0.033 |  | 0.067 |

## F. 3 Female wages - Lagged measures of female leadership

This set of specification tests for the effectiveness alternative measures of female leadership. We report for references the benchmark specification (a) and specification (f) from the main text. Specification L1 includes both a "New Female CEO" dummy, equal to 1 if the firm has a female CEO and had a male CEO the previous years, and the "Female CEO for at least one year", which is a dummy variable equal to 1 if the firm has a female CEO and had a female CEO the previous year. Specification L2 includes both the Female CEO dummy and a measure of her tenure (equal to zero the first year the firm switches to a female CEO).

Table A.5: Impact of female leadership on moments of the firm-level female wage distributions

| Dependent variable: | Standard deviation | Average wages |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median | Decile |  | Quantiles |  |  |  |
|  |  | Below Above | 1 | 10 | 1 | 2 | 3 | 4 |
|  | (1) | (2) (3) | (4) | (5) | (6) | (7) | (8) | (9) |


| (a) Benchmark |  |  |  |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient | 0.475 | -0.030 | 0.078 | -0.043 | 0.167 | -0.031 | -0.026 | 0.006 | 0.104 |
| 1-tail P-value | 0.000 | 0.090 | 0.003 | 0.124 | 0.004 | 0.147 | 0.112 | 0.424 | 0.001 |

(f) Female CEO for at least 1 year

| $>1$ yr Female CEO | 0.431 | -0.088 | 0.032 | -0.143 | 0.117 | -0.112 | -0.072 | -0.041 | 0.055 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.007 | 0.003 | 0.130 | 0.000 | 0.073 | 0.000 | 0.023 | 0.213 | 0.070 |

(L1) Female CEO for at least one year and new female CEO

| $>$ 1yr Female CEO | 0.498 | -0.084 | 0.048 | -0.135 | 0.144 | -0.105 | -0.069 | -0.033 | 0.075 |
| ---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.003 | 0.007 | 0.037 | 0.000 | 0.037 | 0.003 | 0.037 | 0.250 | 0.017 |
| New female CEO | 0.456 | 0.032 | 0.115 | 0.058 | 0.187 | 0.052 | 0.024 | 0.054 | 0.139 |
| 1-tail P-value | 0.000 | 0.000 | 0.000 | 0.003 | 0.000 | 0.000 | 0.013 | 0.003 | 0.000 |

(L2) Female CEO and her tenure

| Female CEO | 0.444 | 0.007 | 0.082 | -0.005 | 0.153 | 0.013 | 0.008 | 0.040 | 0.105 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.233 | 0.003 | 0.530 | 0.007 | 0.270 | 0.113 | 0.037 | 0.000 |
| Fem. CEO tenure | 0.018 | -0.021 | -0.002 | -0.022 | 0.008 | -0.025 | -0.020 | -0.020 | -0.001 |
| 1-tail P-value | 0.307 | 0.030 | 0.397 | 0.170 | 0.283 | 0.067 | 0.027 | 0.060 | 0.557 |

Table A.6: Impact of female leadership on moments of the firm-level male wage distributions

| Dependent variable: | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | 10 <br> (5) | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| (a) Benchmark |  |  |  |  |  |  |  |  |  |
| Coefficient | -0.107 | 0.021 | -0.027 | 0.029 | -0.069 | 0.031 | 0.016 | 0.010 | -0.039 |
| 1-tail P-value | 0.130 | 0.118 | 0.188 | 0.091 | 0.116 | 0.047 | 0.193 | 0.333 | 0.148 |
| (f) Female CEO for at least 1 year |  |  |  |  |  |  |  |  |  |
| $>1 \mathrm{yr}$ Female CEO | -0.322 | 0.006 | -0.101 | 0.022 | -0.189 | 0.021 | -0.004 | -0.019 | -0.129 |
| 1-tail P-value | 0.003 | 0.207 | 0.000 | 0.053 | 0.007 | 0.033 | 0.550 | 0.347 | 0.000 |
| (L1) Female CEO for at least one year and new female CEO |  |  |  |  |  |  |  |  |  |
| $>1 \mathrm{yr}$ Female CEO | -0.306 | 0.011 | -0.093 | 0.027 | -0.182 | 0.027 | 0.002 | -0.013 | -0.121 |
| 1-tail P-value | 0.007 | 0.123 | 0.003 | 0.037 | 0.007 | 0.020 | 0.293 | 0.450 | 0.003 |
| New female CEO | 0.112 | 0.036 | 0.050 | 0.029 | 0.054 | 0.036 | 0.037 | 0.041 | 0.054 |
| 1-tail P-value | 0.053 | 0.027 | 0.030 | 0.143 | 0.073 | 0.030 | 0.027 | 0.033 | 0.033 |
| (L2) Female CEO and her tenure (bootstraps: 300) |  |  |  |  |  |  |  |  |  |
| Female CEO | 0.003 | 0.033 | 0.015 | 0.032 | 0.001 | 0.037 | 0.031 | 0.029 | 0.009 |
| 1-tail P-value | 0.233 | 0.013 | 0.160 | 0.067 | 0.263 | 0.010 | 0.047 | 0.067 | 0.203 |
| Fem. CEO tenure | -0.063 | -0.007 | -0.024 | -0.002 | -0.040 | -0.004 | -0.009 | -0.011 | -0.028 |
| 1-tail P-value | 0.003 | 0.133 | 0.000 | 0.440 | 0.003 | 0.300 | 0.040 | 0.087 | 0.000 |

Table A.7: Impact of female leadership on firms' performance

| Dependent <br> variable:$\rightarrow$ | Sales per <br> employee <br> $(1)$ | Value added <br> per employee | TFP |  |
| :---: | :---: | :---: | :---: | :---: |
| $(3)$ | $(4)$ | (5) | $(6)$ |  |

(a) Benchmark

| Female leadership | 0.033 | -0.120 | -0.046 | -0.245 | -0.059 | -0.213 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2-tail P-value | 0.623 | 0.125 | 0.482 | 0.001 | 0.242 | 0.001 |
| Interaction |  | 0.610 |  | 0.795 |  | 0.616 |
| 1-tail P-value |  | 0.007 |  | 0.003 |  | 0.019 |

(e) Female CEO for at least 1 year

| Female leadership | 0.062 | -0.133 | -0.038 | -0.236 | -0.070 | -0.206 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Interaction |  | 0.727 |  | 0.737 |  | 0.507 |
| 1-tail P-value |  | 0.023 |  | 0.027 |  | 0.013 |

(L1) Female CEO for at least one year and new female CEO

| (a) > 1yr Female CEO | 0.065 | -0.136 | -0.044 | -0.263 | -0.074 | -0.229 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| (b) New female CEO | 0.024 | -0.052 | -0.039 | -0.262 | -0.027 | -0.228 |
| Interaction with (a) |  | 0.753 |  | 0.827 |  | 0.587 |
| 1-tail P-value |  | 0.017 |  | 0.013 |  | 0.007 |
| Interaction with (b) |  | 0.311 |  | 0.948 |  | 0.857 |
| 1-tail P-value |  | 0.187 |  | 0.003 |  | 0.017 |

(L2) Female CEO and her tenure

| (a) Female CEO | 0.039 | -0.077 | -0.059 | -0.272 | -0.051 | -0.235 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2-tail P-value | 0.584 | 0.487 | 0.428 | 0.003 | 0.432 | 0.012 |
| (b) Fem. CEO tenure | -0.003 | -0.025 | 0.007 | 0.016 | -0.004 | 0.012 |
| 1-tail P-value | 0.851 | 0.567 | 0.682 | 0.726 | 0.789 | 0.776 |
| Interaction with (a) |  | 0.494 |  | 0.872 |  | 0.749 |
| 1-tail P-value |  | 0.047 |  | 0.000 |  | 0.000 |
| Interaction with (b) |  | 0.059 |  | -0.039 |  | -0.061 |
| 1-tail P-value |  | 0.183 |  | 0.627 |  | 0.737 |

## F. 4 Female CEOs and female executives

In this section we present a specification that includes both the female CEO dummy and the fraction of female executives. The definition of fraction of female executives excludes the female CEO from the computation (female CEOs are included as executives in the definition of fraction of female executives for specification (e))

Table A.8: Impact of female leadership on moments of the firm-level wage distributions

| Dependent $\qquad$ variable: | Standard deviation | Average wages |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median | Decile |  | Quantiles |  |  |  |
|  |  | Below Above | 1 | 10 | 1 | 2 | 3 | 4 |
|  | (1) | (2) (3) | (4) | (5) | (6) | (7) | (8) | (9) |

Females: (a) Benchmark

| Coefficient | 0.475 | -0.030 | 0.078 | -0.043 | 0.167 | -0.031 | -0.026 | 0.006 | 0.104 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.090 | 0.003 | 0.124 | 0.004 | 0.147 | 0.112 | 0.424 | 0.001 |

Females: (e) Different measure of female leadership: fraction of female executives

| Coefficient | 2.108 | -0.036 | 0.310 | -0.114 | 0.789 | -0.053 | -0.022 | -0.007 | 0.421 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.188 | 0.000 | 0.109 | 0.000 | 0.172 | 0.286 | 0.429 | 0.000 |

Females: (CX) Female CEO and female execs. (bootstraps: 300)

| Female CEO | 0.708 | -0.032 | 0.111 | -0.057 | 0.255 | -0.035 | -0.027 | 0.004 | 0.149 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.000 | 0.093 | 0.000 | 0.113 | 0.000 | 0.140 | 0.120 | 0.453 | 0.000 |
| Frac fem. execs. | 1.477 | -0.015 | 0.204 | -0.078 | 0.553 | -0.027 | -0.005 | -0.013 | 0.283 |
| 1-tail P-value | 0.000 | 0.277 | 0.000 | 0.170 | 0.000 | 0.253 | 0.330 | 0.290 | 0.000 |

Males: (a) Benchmark

| Coefficient | -0.107 | 0.021 | -0.027 | 0.029 | -0.069 | 0.031 | 0.016 | 0.010 | -0.039 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.130 | 0.118 | 0.188 | 0.091 | 0.116 | 0.047 | 0.193 | 0.333 | 0.148 |

Males: (e) Different measure of female leadership: fraction of female executives

| Coefficient | -0.232 | 0.008 | -0.091 | -0.024 | -0.203 | -0.004 | 0.016 | 0.004 | -0.128 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.132 | 0.409 | 0.067 | 0.352 | 0.039 | 0.461 | 0.303 | 0.450 | 0.048 |

Males: (CX) Female CEO and female execs. (bootstraps: 300)

| Female CEO | -0.114 | 0.020 | -0.036 | 0.024 | -0.084 | 0.026 | 0.016 | 0.010 | -0.050 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1-tail P-value | 0.240 | 0.057 | 0.257 | 0.070 | 0.153 | 0.027 | 0.097 | 0.207 | 0.223 |
| Frac fem. execs. | -0.174 | -0.011 | -0.074 | -0.032 | -0.153 | -0.028 | -0.000 | -0.002 | -0.100 |
| 1-tail P-value | 0.160 | 0.247 | 0.067 | 0.140 | 0.060 | 0.087 | 0.520 | 0.480 | 0.067 |

Table A.9: Impact of female leadership on firm performance

| Dependent variable: $\rightarrow$ | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (2) |  | (4) | (5) | (6) |
| (a) Benchmark |  |  |  |  |  |  |
| Female leadership | 0.033 | -0.120 | -0.046 | -0.245 | -0.059 | -0.213 |
| 2-tail P-value | 0.623 | 0.125 | 0.482 | 0.001 | 0.242 | 0.001 |
| Interaction |  | 0.610 |  | 0.795 |  | 0.616 |
| 1-tail P-value |  | 0.007 |  | 0.003 |  | 0.019 |

(c) Different measure of female leadership: fraction of female executives

| Female leadership | 0.025 | -0.322 | -0.208 | -0.429 | -0.236 | -0.413 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2-tail P-value | 0.794 | 0.097 | 0.081 | 0.052 | 0.060 | 0.082 |
| Interaction |  | 1.098 |  | 0.697 |  | 0.559 |
| 1-tail P-value |  | 0.007 |  | 0.083 |  | 0.146 |

(CX) Female CEO and female execs (bootstraps: 300)

| (a) Female CEO | 0.033 | -0.147 | -0.074 | -0.288 | -0.093 | -0.263 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 2-tail P-value | 0.632 | 0.072 | 0.305 | 0.001 | 0.103 | 0.000 |
| (b) Fraction fem. execs. | -0.017 | -0.287 | -0.167 | -0.292 | -0.200 | -0.329 |
| 1-tail P-value | 0.859 | 0.052 | 0.108 | 0.126 | 0.054 | 0.080 |
| Interaction with (a) |  | 0.671 |  | 0.833 |  | 0.655 |
| 1-tail P-value |  | 0.003 |  | 0.000 |  | 0.000 |
| Interaction with (b) |  | 0.751 |  | 0.351 |  | 0.361 |
| 1-tail P-value |  | 0.027 |  | 0.247 |  | 0.227 |

## G Construction of the Instruments and First-stage results

The approach we adopted to construct our instruments is in the style of Bartik (1991) and assumes that there is an exogenous trend in the evolution of female leadership, summarized, for example, by the average fraction of female managers by year and region. This trend should be correlated with the fraction of female managers in each firm in a given year, but not correlated with the time-varying firm-level heterogeneity that may endogenously affect wages and female leadership in a given firm.

We construct two instruments, for both the fraction of female managers employed in firm $j$ at time $t$ (which we denote here with $f_{t, j}$ ) and for the female CEO dummy (denoted with $d_{t, j}$.) We assume that their base year values (1988, the first year of the panel), are exogenous. The endogeneity induced by heterogeneity in the initial conditions is controlled for by the firm fixed effects we include in all of our regressions. Using an older base year would strengthen the exogeneity assumption but induces too many missing values in our sample.

We have defined the first instrument in the main text (see equation (4.3)). The instrument we use for the female CEO dummy is constructed using a slightly different method. Because the base year value of such variable contains many zeros, using the same approach would generate an instrument without enough variation to capture the realized exogenous growth in female leadership. We therefore first generate a continuous variable by running a probit on the female CEO dummy and computing its predicted value for firm $j$ in year $t$ :

$$
\widehat{d_{j, t}}=\Phi\left(\hat{\beta} Z_{t, j}\right)
$$

where $Z$ includes the age of the CEO, the CEO tenure, the CEO fixed effects, the mean age and tenure of the workforce, the percent of white collar workers, the fraction of females in the workforce, the CEO fixed effect and the mean value of the workers' fixed effects from the two-way fixed effects regression, and three firm-size dummies. The results of this regression are reported in the online appendix. We compute the probit only using data from years 1988 through 1990 and extrapolate the predicted values for the whole sample (ideally we would use only data for the base year, in support to the assumption of exogeneity of the initial value, but we
added two more years to add power to the estimates).
Next, we apply to this generated variable, $\widehat{d_{j, t}}$, the same procedure adopted to compute the instrument for the fraction of female managers $f_{j, t}$. Denote this instrument with $\tilde{d}$.

Table A.1: Instrumental variable wage regressions, first stage results
(a) Female CEO
(b) Fraction of fem. managers

|  | $(1)$ | $(2)$ |  | $(3)$ | $(4)$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $\tilde{f}$ | -0.937 | -0.951 | $\tilde{f}$ | -0.620 | -0.630 |
| $\tilde{d}$ | $(0.301)$ | $(0.206)$ |  | $(0.229)$ | $(0.160)$ |
|  | 0.100 | 0.080 | $\tilde{d}$ | 0.119 | 0.092 |
| CEO age | $(0.337)$ | $(0.238)$ |  | $(0.126)$ | $(0.090)$ |
|  | -0.504 | -0.156 | Avg. Exec. age | -0.007 | -0.003 |
| CEO tenure | $(0.584)$ | $(0.083)$ |  | $(0.008)$ | $(0.002)$ |
|  | 0.002 | 0.002 | Avg. exec. ten. | 0.005 | 0.006 |
| CEO $<1980$ | $(0.002)$ | $(0.001)$ |  | $(0.003)$ | $(0.003)$ |
|  | 0.002 | -0.000 |  | -0.120 |  |
| CEO fixed eff. | $-0.015)$ | $(0.014)$ |  | $(0.075)$ |  |
|  | $(0.052)$ |  | Avg. exec. F.E. |  |  |
| Avg. Wkr. age | 0.004 | 0.003 | Avg. wrk. age | 0.008 | 0.007 |
|  | $(0.012)$ | $(0.004)$ |  | $(0.008)$ | $(0.004)$ |
| Avg wkr. tenure | -0.003 | -0.002 | Avg. wrk. tenure | -0.002 | -0.002 |
|  | $(0.004)$ | $(0.004)$ |  | $(0.003)$ | $(0.003)$ |
| \% white collars | 0.063 | 0.062 | \% white collars | 0.046 | 0.046 |
|  | $(0.084)$ | $(0.061)$ |  | $(0.053)$ | $(0.040)$ |
| Fraction female | -0.003 | -0.018 | Fraction female | 0.261 | 0.261 |
|  | $(0.109)$ | $(0.090)$ |  | $(0.090)$ | $(0.099)$ |
| Avg. wkr. F.E. | 0.015 |  | Avg. wkr. F.E. | 0.015 |  |
|  | $(0.168)$ |  |  | $(0.109)$ |  |
| $R^{2}$ | 0.121 | 0.106 |  | 0.250 | 0.228 |
| F-test $(2,233)$ |  | 10.86 |  | 8 | 8.63 |
| Prob $>$ F |  | 0.0000 |  | 0.0002 |  |

Regressors also include firm fixed effects and the full set of dummies used in the main specification. Standard errors (in parenthesis) are clustered at the firm level in columns (2), (4), and bootstrapped in columns (1), (3)

In our IV specifications of the wage equations we instrumented the female leadership variable with both instruments. Table A.1, panel (a) reports the first stage results from the wage equations where the endogenous variable is the Female CEO
dummy, whereas panel (b) reports the first stage results from the specifications where the endogenous variable is the fraction of female managers.

Table A.2: Instrumental variable performance regressions, first stage results

| Fem. CEO |  | Inter. <br> (2) | Fem. CEO <br> (3) | Inter. <br> (4) | Fraction fem managers |  | Inter. <br> (6) | Fr. fem. man. <br> (7) | Inter. <br> (8) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\tilde{f}$ | -0.449 | 0.134 | -0.460 | 0.124 | f | -0.592 | -0.012 | -0.597 | -0.016 |
|  | (0.879) | (0.278) | (0.642) | (0.144) |  | (0.573) | (0.113) | (0.536) | (0.079) |
| $\tilde{d}$ | 0.094 | -0.031 | 0.074 | -0.033 | $\tilde{d}$ | 0.119 | 0.031 | 0.092 | 0.020 |
|  | (0.334) | (0.046) | (0.233) | (0.033) |  | (0.125) | (0.044) | (0.087) | (0.034) |
| $\tilde{f} \cdot($ Frac. fem.) | -0.858 | -1.117 | -0.867 | -1.108 | $\tilde{f} \cdot($ Frac. fem.) | -0.049 | -0.511 | -0.057 | -0.511 |
|  | (1.567) | (0.720) | (.866) | (0.242) |  | (1.012) | (0.426) | (0.678) | (0.093) |
| CEO age | -0.486 | -0.097 | -0.141 | -0.020 | Avg. Exec. age | -0.007 | -0.002 | -0.003 | -0.001 |
|  | (0.579) | (0.132) | (0.080) | (0.021) |  | (0.008) | (0.003) | (0.002) | (0.001) |
| CEO tenure | 0.002 | -0.000 | 0.001 | -0.000 | Avg. exec. ten. | 0.005 | 0.001 | 0.006 | 0.001 |
|  | (0.002) | (0.000) | (0.001) | (0.000) |  | (0.003) | (0.001) | (0.003) | (0.001) |
| CEO <1980 | 0.002 | 0.004 | -0.000 | 0.003 |  |  |  |  |  |
|  | (0.015) | (0.004) | (0.014) | (0.004) |  |  |  |  |  |
| çEO fixed eff. | -0.073 | -0.016 |  |  | Avg. exec. F.E. | -0.120 | -0.049 |  |  |
|  | (0.051) | (0.012) |  |  |  | (0.073) | (0.025) |  |  |
| Avg. Wkr. age | 0.004 | -0.005 | 0.003 | 0.000 | Avg. wrk. age | 0.008 | 0.001 | 0.007 | -0.002 |
|  | (0.013) | $(0.006)$ | $(0.004)$ | $(0.001)$ |  | (0.008) | $(0.004)$ | (0.004) | $(0.001)$ |
| Avg wkr. tenure | -0.003 | -0.000 | -0.002 | 0.000 | Avg. wrk. ten. | -0.002 | -0.000 | -0.002 | -0.001 |
|  | (0.004) | (0.001) | (0.004) | (0.000) |  | (0.003) | (0.001) | (0.003) | (0.001) |
| \% white collars | 0.073 | 0.048 | 0.066 | 0.015 | \% white collars | 0.047 | 0.021 | 0.046 | 0.014 |
|  | (0.083) | (0.023) | (0.059) | (0.014) |  | (0.053) | (0.019) | (0.040) | (0.013) |
| Frac. fem. | -0.019 | 0.070 | -0.038 | 0.048 | Frac. fem. | 0.260 | 0.165 | 0.260 | 0.161 |
|  | (0.102) | (0.055) | (0.085) | (0.049) |  | $(0.091)$ | (0.057) | (0.097) | (0.064) |
| Avg. wkr. F.E. | -0.008 | -0.127 |  |  | Avg. wkr. F.E. | 0.013 | -0.023 |  |  |
|  | (0.172) | $(0.082)$ |  |  |  | $(0.114)$ | $(0.055)$ |  |  |
| $R^{2}$ | 0.126 | 0.318 | 0.111 | 0.301 | $R^{2}$ | 0.250 | 0.351 | 0.223 | 0.327 |
| F-test (2,233) |  |  | 37.74 | 49.77 |  |  |  | 32.80 | 47.26 |
| Prob>F |  |  | 0.000 | 0.000 |  |  |  | 0.000 | 0.000 |
| Cragg-Donald F |  |  | 11 |  |  |  |  | 41.02 |  |

Standard errors (in parenthesis) clustered at the firm level in columns (3),(4) (7), (8), and bootstrapped in columns 1,2,5,6. Regressors also include fixed effects and full set of dummies

The instrumental variable regressions of the performance regressions contain an additional endogenous variable, the interaction of female leadership with the percent of female workers. For these specification, we include an additional instrument constructed interacting $\tilde{f}$ with the fraction of female workers. Table A. 2 contains the first-stage results for the specifications where the Female CEO is the measure of female leadership (panel (a)); and where the fraction of female managers is the measure of female leadership (panel (b)). In each panel, the first column reports the first stage results of the regression where the dependent variable is the measure of female leadership, and the second column reports the results where the dependent variable is the female leadership interacted with the fraction of female workers.

## H Parameter Estimates of wage and performance regressions, other specifications

Reported below are the parameter estimates for the most important dependent variables for all specification except the benchmark which can be found in Appendix E. Bootstrapped standard errors in parenthesis. Omitted dependent variables: 20 region dummies, 20 industry dummies, 4 firm-size dummies, year dummies, industryspecific trends, and firm fixed effects. See also note to table 3.

## H. 1 Female wages All Workers (b)

| Dependent variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) |  | 10 <br> (5) | 1 <br> (6) | 2 <br> (7) | $\begin{gathered} 3 \\ (8) \end{gathered}$ | 4 <br> (9) |
| Female CEO | 0.418 | -0.032 | 0.049 | -0.038 | 0.121 | -0.036 | -0.027 | -0.020 | 0.072 |
|  | (0.121) | (0.018) | (0.032) | (0.036) | (0.051) | (0.029) | (0.016) | (0.022) | (0.037) |
| CEO age | 0.083 | 0.085 | 0.060 | -0.016 | 0.077 | 0.074 | 0.107 | 0.065 | 0.051 |
|  | (0.428) | (0.068) | (0.093) | (0.152) | (0.181) | (0.091) | (0.071) | (0.062) | (0.115) |
| CEO tenure | 0.006 | -0.001 | -0.000 | 0.002 | 0.001 | -0.000 | -0.001 | -0.001 | 0.000 |
|  | (0.004) | (0.001) | (0.001) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO < 1980 | -0.010 | 0.015 | 0.011 | 0.011 | 0.012 | 0.014 | 0.016 | 0.011 | 0.014 |
|  | (0.056) | (0.007) | (0.012) | (0.018) | (0.027) | (0.012) | (0.007) | (0.008) | (0.015) |
| CEO fixed eff. | 0.049 | 0.013 | 0.015 | -0.004 | 0.025 | 0.009 | 0.016 | 0.010 | 0.017 |
|  | (0.054) | (0.008) | (0.011) | (0.021) | (0.021) | (0.013) | (0.008) | (0.008) | (0.013) |
| Avg. wrk. age | 0.084 | 0.062 | 0.071 | 0.086 | 0.070 | 0.068 | 0.059 | 0.067 | 0.072 |
|  | (0.071) | (0.039) | (0.044) | (0.058) | (0.048) | (0.044) | (0.038) | (0.043) | (0.046) |
| Avg. wrk. tenure | -0.022 | -0.004 | -0.007 | -0.007 | -0.009 | -0.003 | -0.005 | -0.007 | -0.007 |
|  | (0.017) | (0.003) | (0.004) | (0.009) | (0.007) | (0.005) | (0.003) | (0.004) | (0.005) |
| \% white collars | 0.432 | -0.179 | -0.041 | -0.513 | 0.132 | -0.308 | -0.108 | -0.124 | 0.007 |
|  | (0.422) | (0.066) | (0.104) | (0.199) | (0.198) | (0.108) | (0.068) | (0.068) | (0.129) |
| Fraction female | 0.285 | -0.643 | -0.634 | -0.609 | -0.365 | -0.668 | -0.622 | -0.703 | -0.605 |
|  | (0.512) | (0.104) | (0.117) | (0.331) | (0.209) | (0.174) | (0.098) | (0.093) | (0.141) |
| Avg. wkr. F.E. | 1.642 | 1.460 | 1.655 | 1.939 | 1.542 | 1.551 | 1.393 | 1.614 | 1.670 |
|  | (0.861) | (0.133) | (0.186) | (0.422) | (0.426) | (0.233) | (0.146) | (0.155) | (0.258 |
| $R^{2}$ : Between | 0.148 | 0.242 | 0.369 | 0.083 | 0.251 | 0.119 | 0.281 | 0.367 | 0.345 |
| Within | 0.075 | 0.431 | 0.510 | 0.083 | 0.254 | 0.263 | 0.494 | 0.529 | 0.452 |
| Overall | 0.083 | 0.400 | 0.495 | 0.069 | 0.252 | 0.217 | 0.464 | 0.512 | 0.439 |

## H. 2 Male wages All Workers (b)

| Dependent $\qquad$ | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ian |  |  |  | Qu | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.113 | -0.016 | -0.037 | -0.023 | -0.071 | -0.016 | -0.015 | -0.014 | -0.047 |
|  | (0.086) | (0.013) | (0.026) | (0.016) | (0.050) | (0.013) | (0.013) | (0.016) | (0.033) |
| CEO age | 1.829 | 0.047 | 0.331 | 0.075 | 0.805 | 0.057 | 0.041 | 0.056 | 0.449 |
|  | (0.874) | (0.062) | (0.205) | (0.096) | (0.418) | (0.077) | (0.060) | (0.084) | (0.263) |
| CEO tenure | -0.003 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 |
|  | (0.002) | (0.000) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | 0.023 | 0.008 | 0.016 | 0.008 | 0.023 | 0.007 | 0.009 | 0.008 | 0.017 |
|  | (0.038) | (0.005) | (0.010) | (0.008) | (0.019) | (0.006) | (0.005) | (0.007) | (0.013) |
| CEO fixed eff. | 0.330 | 0.009 | 0.055 | 0.020 | 0.140 | 0.015 | 0.005 | 0.004 | 0.076 |
|  | (0.031) | (0.006) | (0.013) | (0.010) | (0.019) | (0.008) | (0.007) | (0.010) | (0.015) |
| Avg. wrk. age | 0.062 | 0.044 | 0.061 | 0.044 | 0.060 | 0.043 | 0.045 | 0.054 | 0.064 |
|  | (0.046) | (0.038) | (0.045) | (0.041) | (0.041) | (0.038) | (0.039) | (0.045) | (0.046) |
| Avg. wrk. tenure | 0.006 | -0.002 | -0.001 | 0.001 | 0.003 | -0.001 | -0.003 | -0.002 | -0.000 |
|  | (0.009) | (0.004) | (0.004) | (0.005) | (0.006) | (0.005) | (0.005) | (0.005) | (0.005) |
| \% white collars | 0.182 | 0.117 | 0.270 | 0.033 | 0.209 | 0.053 | 0.150 | 0.253 | 0.284 |
|  | (0.185) | (0.104) | (0.117) | (0.117) | (0.133) | (0.104) | (0.106) | (0.121) | (0.125) |
| Fraction female | 0.312 | -0.142 | 0.172 | -0.165 | 0.304 | -0.146 | -0.138 | -0.024 | 0.238 |
|  | (0.271) | (0.165) | (0.176) | (0.181) | (0.200) | (0.163) | (0.168) | (0.187) | (0.187) |
| Avg. wkr. F.E. | 1.643 | 0.918 | 1.445 | 0.906 | 1.469 | 0.856 | 0.947 | 1.229 | 1.533 |
|  | (0.343) | (0.426) | (0.383) | (0.461) | (0.266) | (0.422) | (0.431) | (0.481) | (0.358) |
| $R^{2}$ : Between | 0.242 | 0.380 | 0.440 | 0.216 | 0.325 | 0.287 | 0.390 | 0.409 | 0.415 |
| Within | 0.297 | 0.528 | 0.426 | 0.378 | 0.267 | 0.445 | 0.539 | 0.516 | 0.383 |
| Overall | 0.278 | 0.513 | 0.426 | 0.345 | 0.265 | 0.422 | 0.525 | 0.508 | 0.383 |

## H. 3 Female wages New CEO ctrl (c)

| Dependent $\qquad$ | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Me | ian |  |  |  | Qua | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 0.477 | -0.030 | 0.079 | -0.043 | 0.168 | -0.030 | -0.026 | 0.007 | 0.105 |
|  | (0.123) | (0.022) | (0.028) | (0.037) | (0.063) | (0.029) | (0.021) | (0.029) | (0.035) |
| CEO age | 0.075 | 0.074 | 0.044 | -0.019 | 0.065 | 0.059 | 0.092 | 0.045 | 0.043 |
|  | (0.427) | (0.067) | (0.092) | (0.152) | (0.179) | (0.090) | (0.071) | (0.063) | (0.116) |
| CEO tenure | 0.008 | -0.000 | 0.001 | 0.002 | 0.002 | 0.000 | -0.001 | 0.000 | 0.001 |
|  | (0.005) | (0.001) | (0.001) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO < 1980 | -0.018 | 0.014 | 0.010 | 0.011 | 0.007 | 0.013 | 0.015 | 0.011 | 0.012 |
|  | (0.057) | (0.007) | (0.012) | (0.018) | (0.027) | (0.012) | (0.007) | (0.008) | (0.015) |
| CEO fixed eff. | 0.051 | 0.013 | 0.015 | -0.005 | 0.024 | 0.008 | 0.016 | 0.011 | 0.018 |
|  | (0.054) | (0.008) | (0.011) | (0.021) | (0.021) | (0.013) | (0.008) | (0.007) | (0.013) |
| New CEO | 0.024 | 0.006 | 0.008 | 0.003 | 0.012 | 0.004 | 0.007 | 0.010 | 0.010 |
|  | (0.026) | (0.005) | (0.005) | (0.011) | (0.010) | (0.008) | (0.004) | (0.004) | (0.006) |
| Avg. wrk. age | 0.098 | 0.055 | 0.068 | 0.084 | 0.079 | 0.066 | 0.050 | 0.051 | 0.073 |
|  | $(0.068)$ | (0.035) | (0.042) | (0.058) | (0.049) | (0.043) | (0.032) | (0.034) | (0.045) |
| Avg. wrk. tenure | -0.027 | -0.002 | -0.007 | -0.006 | -0.011 | -0.003 | -0.003 | -0.003 | -0.008 |
|  | (0.017) | (0.003) | (0.004) | (0.009) | (0.007) | (0.005) | (0.003) | (0.003) | (0.005) |
| \% white collars | 0.378 | -0.132 | -0.015 | $-0.502$ | 0.090 | -0.286 | -0.050 | -0.040 | 0.018 |
|  | (0.398) | (0.070) | (0.103) | (0.201) | (0.186) | (0.111) | (0.067) | (0.072) | (0.124) |
| Fraction female | 0.227 | -0.595 | $-0.577$ | -0.623 | -0.435 | -0.661 | -0.556 | -0.541 | -0.572 |
|  | (0.485) | (0.111) | (0.124) | (0.342) | (0.186) | (0.182) | (0.100) | (0.123) | (0.143) |
| Avg. wkr. F.E. | 1.992 | 1.259 | 1.588 | 1.901 | 1.780 | 1.480 | 1.140 | 1.194 | 1.693 |
|  | (0.711) | (0.156) | (0.188) | (0.439) | (0.328) | (0.258) | (0.136) | (0.166) | (0.229) |
| $R^{2}$ : Between | 0.154 | 0.223 | 0.368 | 0.081 | 0.264 | 0.116 | 0.254 | 0.300 | 0.352 |
| Within | 0.077 | 0.413 | 0.470 | 0.113 | 0.277 | 0.253 | 0.489 | 0.504 | 0.420 |
| Overall | 0.082 | 0.381 | 0.458 | 0.086 | 0.271 | 0.206 | 0.458 | 0.486 | 0.410 |

## H. 4 Male wages New CEO ctrl (c)

| $\begin{gathered} \text { Dependent } \\ \text { variable } \end{gathered} \rightarrow$ | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.105 | 0.022 | -0.027 | 0.029 | -0.067 | 0.031 | 0.016 | 0.010 | -0.039 |
|  | (0.094) | (0.018) | (0.031) | (0.022) | (0.057) | (0.018) | (0.018) | (0.024) | (0.038) |
| CEO age | 1.814 | 0.045 | 0.317 | 0.069 | 0.787 | 0.053 | 0.041 | 0.056 | 0.432 |
|  | (0.873) | (0.062) | (0.198) | (0.093) | (0.414) | (0.075) | (0.060) | (0.083) | (0.255) |
| CEO tenure | -0.001 | -0.000 | -0.000 | -0.001 | -0.000 | -0.001 | -0.000 | -0.001 | -0.000 |
|  | (0.003) | (0.001) | (0.001) | (0.001) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO < 1980 | 0.019 | 0.006 | 0.015 | 0.006 | 0.023 | 0.006 | 0.007 | 0.006 | 0.016 |
|  | (0.037) | (0.005) | (0.010) | (0.008) | (0.019) | (0.006) | (0.005) | (0.007) | (0.012) |
| CEO fixed eff. | 0.329 | 0.008 | 0.054 | 0.019 | 0.138 | 0.014 | 0.005 | 0.004 | 0.074 |
|  | (0.031) | (0.006) | (0.012) | (0.010) | (0.019) | (0.008) | (0.006) | (0.010) | (0.014) |
| New CEO | 0.020 | 0.004 | 0.007 | 0.003 | 0.012 | 0.003 | 0.004 | 0.003 | 0.008 |
|  | $(0.012)$ | (0.003) | (0.004) | (0.004) | (0.007) | (0.003) | (0.003) | (0.003) | (0.005) |
| Avg. wrk. age | 0.075 | 0.048 | 0.075 | 0.048 | 0.072 | 0.046 | 0.049 | 0.061 | 0.080 |
|  | $(0.057)$ | $(0.037)$ | (0.047) | (0.040) | (0.046) | (0.037) | (0.038) | (0.044) | (0.049) |
| Avg. wrk. tenure | 0.003 | -0.003 | -0.004 | -0.000 | 0.000 | -0.002 | -0.004 | -0.004 | -0.004 |
|  | (0.009) | (0.004) | (0.003) | (0.005) | (0.006) | (0.004) | (0.004) | (0.004) | (0.004) |
| \% white collars | 0.117 | 0.094 | 0.196 | 0.012 | 0.149 | 0.035 | 0.127 | 0.207 | 0.203 |
|  | (0.195) | (0.089) | (0.088) | (0.103) | (0.130) | (0.092) | (0.092) | (0.097) | (0.102) |
| Fraction female | 0.219 | -0.181 | 0.063 | -0.217 | 0.212 | -0.186 | -0.176 | -0.083 | 0.121 |
|  | (0.271) | (0.138) | (0.133) | (0.142) | (0.184) | (0.132) | (0.144) | (0.162) | (0.148) |
| Avg. wkr. F.E. | 1.995 | 1.026 | 1.805 | 1.013 | 1.789 | 0.951 | 1.057 | 1.434 | 1.932 |
|  | (0.472) | (0.364) | (0.188) | (0.398) | (0.242) | (0.368) | (0.369) | (0.363) | (0.177) |
| $R^{2}$ : Between | 0.247 | 0.400 | 0.471 | 0.223 | 0.332 | 0.300 | 0.411 | 0.438 | 0.440 |
| Within | 0.410 | 0.470 | 0.498 | 0.366 | 0.376 | 0.422 | 0.469 | 0.515 | 0.479 |
| Overall | 0.375 | 0.463 | 0.494 | 0.335 | 0.366 | 0.405 | 0.465 | 0.510 | 0.473 |

## H. 5 Female wages Full Panel (d)

| Dependent | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ian |  |  |  | Qua | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 0.403 | -0.016 | 0.073 | -0.004 | 0.170 | -0.007 | -0.022 | 0.006 | 0.096 |
|  | (0.085) | (0.020) | (0.022) | (0.031) | (0.047) | (0.026) | (0.019) | (0.017) | (0.027) |
| CEO age | 0.266 | 0.022 | 0.049 | -0.124 | 0.095 | -0.015 | 0.046 | 0.038 | 0.052 |
|  | $(0.347)$ | (0.059) | (0.081) | (0.156) | (0.149) | (0.093) | (0.060) | (0.051) | (0.099) |
| CEO tenure | 0.003 | -0.001 | -0.000 | 0.001 | 0.000 | -0.000 | -0.001 | -0.001 | -0.000 |
|  | (0.003) | (0.001) | (0.001) | $(0.001)$ | (0.001) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | -0.018 | 0.013 | 0.007 | 0.017 | 0.006 | 0.014 | 0.013 | 0.011 | 0.009 |
|  | (0.042) | (0.007) | (0.009) | (0.016) | (0.019) | (0.012) | (0.007) | (0.007) | (0.011) |
| CEO fixed eff. | 0.069 | 0.005 | 0.016 | -0.019 | 0.030 | -0.002 | 0.009 | 0.009 | 0.019 |
|  | (0.040) | (0.008) | (0.008) | (0.020) | (0.016) | (0.013) | (0.007) | (0.006) | (0.010) |
| Avg. wrk. age | 0.082 | 0.053 | 0.062 | 0.087 | 0.076 | 0.065 | 0.046 | 0.044 | 0.067 |
|  | (0.047) | (0.033) | (0.035) | (0.059) | (0.042) | (0.043) | (0.029) | (0.027) | (0.038) |
| Avg. wrk. tenure | -0.039 | 0.000 | -0.010 | 0.001 | -0.017 | 0.002 | -0.001 | -0.004 | -0.012 |
|  | (0.012) | (0.003) | (0.003) | (0.007) | (0.005) | (0.004) | (0.002) | (0.002) | (0.003) |
| \% white collars | 0.353 | -0.108 | -0.005 | -0.358 | 0.071 | -0.201 | -0.054 | -0.042 | 0.023 |
|  | (0.236) | (0.047) | (0.062) | (0.130) | (0.109) | (0.075) | (0.045) | (0.043) | (0.075) |
| Fraction female | 0.499 | -0.740 | -0.491 | -1.109 | -0.323 | -0.946 | -0.633 | -0.504 | -0.453 |
|  | (0.305) | (0.100) | (0.078) | (0.249) | (0.125) | (0.158) | (0.084) | (0.070) | (0.091) |
| Avg. wkr. F.E. | 1.612 | 1.250 | 1.410 | 2.146 | 1.682 | 1.590 | 1.085 | 1.015 | 1.526 |
|  | (0.471) | (0.155) | (0.121) | (0.401) | (0.224) | (0.265) | (0.123) | (0.093) | (0.151) |
| $R^{2}$ : Between | 0.110 | 0.157 | 0.280 | 0.074 | 0.200 | 0.102 | 0.163 | 0.239 | 0.262 |
| Within | 0.033 | 0.401 | 0.355 | 0.110 | 0.173 | 0.290 | 0.437 | 0.423 | 0.300 |
| Overall | 0.044 | 0.370 | 0.353 | 0.074 | 0.171 | 0.234 | 0.422 | 0.413 | 0.297 |

## H. 6 Male wages FullPanel (d)

| Dependent | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ian |  |  |  | Quan | tiles |  |
| Expl. variable $\downarrow$ |  | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.152 | 0.030 | -0.038 | 0.058 | -0.092 | 0.049 | 0.019 | 0.005 | -0.054 |
|  | (0.075) | (0.010) | (0.025) | (0.014) | (0.051) | (0.011) | (0.010) | (0.014) | (0.033) |
| CEO age | 1.740 | 0.038 | 0.350 | 0.085 | 0.870 | 0.068 | 0.022 | 0.017 | 0.479 |
|  | (0.921) | (0.044) | (0.219) | (0.071) | (0.475) | (0.054) | (0.045) | (0.061) | (0.288) |
| CEO tenure | -0.001 | -0.001 | -0.000 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.000 |
|  | (0.002) | (0.000) | (0.001) | (0.001) | (0.001) | (0.000) | (0.000) | (0.000) | (0.001) |
| CEO $<1980$ | 0.029 | 0.004 | 0.011 | 0.005 | 0.021 | 0.004 | 0.004 | 0.003 | 0.013 |
|  | (0.029) | (0.004) | (0.008) | (0.007) | (0.016) | (0.005) | (0.004) | (0.005) | (0.010) |
| CEO fixed eff. | 0.332 | 0.006 | 0.068 | 0.020 | 0.164 | 0.014 | 0.002 | 0.002 | 0.093 |
|  | (0.029) | (0.005) | (0.010) | (0.009) | (0.018) | (0.007) | (0.005) | (0.007) | (0.013) |
| Avg. wrk. age | 0.066 | 0.048 | 0.070 | 0.059 | 0.072 | 0.053 | 0.045 | 0.054 | 0.076 |
|  | (0.048) | (0.031) | (0.043) | (0.041) | (0.046) | (0.036) | (0.029) | (0.035) | (0.046) |
| Avg. wrk. tenure | 0.002 | -0.001 | -0.003 | -0.000 | 0.001 | -0.001 | -0.001 | -0.002 | -0.003 |
|  | (0.008) | (0.003) | (0.003) | (0.004) | (0.005) | (0.003) | (0.003) | (0.003) | (0.003) |
| \% white collars | 0.250 | 0.095 | 0.214 | 0.009 | 0.170 | 0.028 | 0.128 | 0.216 | 0.221 |
|  | (0.139) | (0.054) | (0.066) | (0.074) | (0.094) | (0.063) | (0.053) | (0.057) | (0.078) |
| Fraction female | 0.239 | -0.195 | 0.002 | -0.333 | 0.131 | -0.270 | -0.157 | -0.105 | 0.040 |
|  | (0.224) | (0.091) | (0.097) | (0.143) | (0.157) | (0.121) | (0.085) | (0.095) | (0.116) |
| Avg. wkr. F.E. | 1.712 | 1.024 | 1.663 | 1.320 | 1.769 | 1.152 | 0.968 | 1.252 | 1.803 |
|  | (0.397) | (0.209) | (0.131) | (0.325) | (0.230) | (0.273) | (0.196) | (0.187) | (0.159) |
| $R^{2}$ : Between | 0.192 | 0.326 | 0.378 | 0.190 | 0.259 | 0.243 | 0.323 | 0.360 | 0.349 |
| Within | 0.293 | 0.412 | 0.375 | 0.287 | 0.260 | 0.354 | 0.419 | 0.419 | 0.336 |
| Overall | 0.312 | 0.419 | 0.386 | 0.260 | 0.267 | 0.343 | 0.430 | 0.428 | 0.346 |

## H. 7 Female wages Frac fem managers (e)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Frac. fem. exec. | 2.108 | -0.036 | 0.310 | -0.114 | 0.789 | -0.053 | -0.022 | $-0.007$ | 0.421 |
|  | (0.376) | (0.040) | (0.068) | (0.093) | (0.180) | (0.056) | (0.038) | (0.039) | (0.094) |
| Avg. Exec. age | 0.016 | 0.001 | 0.003 | -0.001 | 0.006 | 0.000 | 0.001 | 0.001 | 0.004 |
|  | (0.013) | (0.002) | (0.003) | (0.004) | (0.005) | (0.003) | (0.002) | (0.002) | (0.003) |
| Avg. exec. ten. | 0.007 | -0.000 | 0.001 | 0.004 | 0.002 | 0.001 | -0.001 | -0.000 | 0.001 |
|  | (0.008) | (0.002) | (0.002) | (0.003) | (0.003) | (0.003) | (0.002) | (0.002) | (0.002) |
| Avg. exec. F.E. | 0.339 | 0.027 | 0.065 | 0.008 | 0.149 | 0.027 | 0.028 | 0.012 | 0.088 |
|  | (0.126) | (0.025) | (0.027) | (0.055) | (0.048) | (0.037) | (0.024) | (0.025) | (0.030) |
| Avg. wrk. age | 0.090 | 0.055 | 0.067 | 0.086 | 0.076 | 0.066 | 0.050 | 0.051 | 0.071 |
|  | (0.068) | (0.035) | (0.042) | (0.058) | (0.049) | (0.043) | (0.032) | (0.034) | (0.045) |
| Avg. wrk. tenure | -0.032 | -0.002 | -0.007 | -0.008 | -0.013 | -0.003 | -0.002 | -0.003 | -0.009 |
|  | (0.017) | (0.003) | (0.004) | (0.010) | (0.007) | (0.005) | (0.003) | (0.003) | (0.005) |
| \% white collars | 0.291 | -0.139 | -0.030 | -0.502 | 0.048 | -0.293 | -0.059 | -0.040 | -0.004 |
|  | (0.347) | (0.071) | (0.099) | (0.201) | (0.169) | (0.111) | (0.068) | (0.073) | (0.118) |
| Fraction female | -0.413 | -0.584 | -0.667 | -0.586 | -0.673 | -0.645 | -0.549 | -0.534 | -0.695 |
|  | (0.446) | (0.117) | (0.124) | (0.347) | (0.180) | (0.185) | (0.107) | (0.132) | (0.141) |
| Avg. wkr. F.E. | 2.066 | 1.261 | 1.600 | 1.910 | 1.813 | 1.485 | 1.141 | 1.190 | 1.710 |
|  | (0.644) | (0.159) | (0.183) | (0.446) | (0.300) | (0.260) | (0.139) | (0.174) | (0.219) |
|  | 0.002 | 0.010 | 0.005 | 0.017 | 0.008 | 0.012 | 0.008 | 0.004 | 0.004 |
|  | (0.022) | (0.005) | (0.003) | (0.013) | (0.006) | (0.009) | (0.005) | (0.003) | (0.004) |
| $R^{2}$ : Between | 0.246 | 0.219 | 0.398 | 0.081 | 0.339 | 0.115 | 0.249 | 0.296 | 0.394 |
| Within | 0.227 | 0.440 | 0.521 | 0.081 | 0.381 | 0.268 | 0.508 | 0.526 | 0.487 |
| Overall | 0.233 | 0.406 | 0.508 | 0.068 | 0.374 | 0.220 | 0.475 | 0.505 | 0.475 |

## H. 8 Male wages Frac fem managers (e)

| Dependent variable <br> Expl. variable $\downarrow$ | Standard deviation <br> (1) | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below (2) | Above (3) | 1 <br> (4) | 10 <br> (5) | 1 <br> (6) | 2 <br> (7) | $3$ (8) | 4 <br> (9) |
| Frac. fem. exec. | -0.232 | 0.008 | -0.091 | -0.024 | -0.203 | -0.004 | 0.016 | 0.004 | -0.128 |
|  | (0.207) | (0.034) | (0.060) | (0.062) | (0.115) | (0.044) | (0.030) | (0.032) | (0.077) |
| Avg. Exec. age | 0.046 | 0.000 | 0.008 | -0.000 | 0.020 | -0.000 | 0.000 | 0.000 | 0.010 |
|  | (0.025) | (0.001) | (0.006) | (0.002) | (0.012) | (0.002) | (0.001) | (0.002) | (0.007) |
| Avg. exec. ten. | -0.010 | -0.001 | -0.002 | -0.001 | -0.006 | -0.001 | -0.001 | -0.000 | -0.003 |
|  | (0.005) | (0.001) | (0.002) | (0.001) | (0.003) | (0.001) | (0.001) | (0.001) | (0.002) |
| Avg. exec. F.E. | 0.854 | 0.014 | 0.158 | 0.021 | 0.382 | 0.020 | 0.010 | 0.021 | 0.212 |
|  | (0.112) | (0.017) | (0.036) | (0.027) | (0.065) | (0.021) | (0.017) | (0.024) | (0.044) |
| Avg. wrk. age | 0.077 | 0.048 | 0.075 | 0.049 | 0.073 | 0.047 | 0.049 | 0.061 | 0.080 |
|  | (0.059) | (0.037) | (0.047) | (0.040) | (0.047) | (0.037) | (0.038) | (0.044) | (0.050) |
| Avg. wrk. tenure | 0.004 | -0.002 | -0.003 | 0.000 | 0.002 | -0.001 | -0.003 | -0.003 | -0.003 |
|  | $(0.010)$ | (0.004) | (0.004) | (0.005) | $(0.006)$ | (0.004) | $(0.004)$ | (0.004) | (0.004) |
| \% white collars | 0.117 | 0.091 | 0.193 | 0.009 | 0.149 | 0.032 | 0.123 | 0.202 | 0.201 |
|  | (0.180) | (0.088) | (0.088) | (0.101) | (0.123) | (0.090) | (0.092) | (0.096) | (0.101) |
| Fraction female | 0.296 | -0.182 | 0.092 | -0.204 | 0.275 | -0.181 | -0.180 | -0.084 | 0.160 |
|  | (0.258) | (0.135) | (0.135) | (0.137) | (0.175) | (0.128) | (0.141) | (0.160) | (0.148) |
| Avg. wkr. F.E. | 2.015 | 1.024 | 1.802 | 1.017 | 1.784 | 0.952 | 1.052 | 1.432 | 1.927 |
|  | $(0.444)$ | (0.362) | (0.191) | (0.394) | (0.233) | (0.364) | (0.368) | (0.363) | (0.178) |
|  | 0.049 | 0.008 | 0.015 | 0.009 | 0.025 | 0.008 | 0.008 | 0.009 | 0.018 |
|  | (0.015) | (0.002) | (0.004) | (0.004) | (0.007) | (0.003) | (0.002) | (0.002) | (0.005) |
| $R^{2}$ : Between | 0.272 | 0.398 | 0.481 | 0.221 | 0.357 | 0.298 | 0.409 | 0.437 | 0.454 |
| Within | 0.291 | 0.503 | 0.412 | 0.380 | 0.272 | 0.436 | 0.512 | 0.493 | 0.378 |
| Overall | 0.276 | 0.493 | 0.414 | 0.347 | 0.272 | 0.417 | 0.503 | 0.489 | 0.380 |

## H. 9 Female wages Fem Ceo $>1$ yr (f)

| Dependent <br> $\rightarrow$ | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ian |  |  |  | Qu | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 0.431 | -0.088 | 0.032 | -0.143 | 0.117 | -0.112 | -0.072 | -0.041 | 0.055 |
|  | (0.166) | (0.046) | (0.031) | (0.057) | (0.084) | (0.054) | (0.047) | (0.051) | (0.040) |
| CEO age | -0.059 | 0.069 | 0.013 | -0.029 | 0.011 | 0.049 | 0.089 | 0.033 | 0.004 |
|  | (0.420) | (0.062) | (0.086) | (0.155) | (0.172) | (0.090) | (0.065) | (0.063) | (0.108) |
| CEO tenure | 0.006 | -0.001 | 0.000 | 0.002 | 0.001 | -0.000 | -0.001 | -0.001 | 0.000 |
|  | (0.004) | (0.001) | (0.001) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | -0.007 | 0.015 | 0.012 | 0.010 | 0.011 | 0.012 | 0.016 | 0.013 | 0.014 |
|  | (0.056) | (0.007) | (0.012) | (0.018) | (0.027) | (0.012) | (0.007) | (0.008) | (0.015) |
| CEO fixed eff. | 0.030 | 0.012 | 0.010 | -0.007 | 0.016 | 0.006 | 0.015 | 0.008 | 0.012 |
|  | (0.055) | (0.008) | (0.011) | (0.021) | (0.022) | (0.013) | (0.008) | (0.008) | (0.014) |
| Avg. wrk. age | 0.089 | 0.056 | 0.067 | 0.087 | 0.076 | 0.068 | 0.051 | 0.052 | 0.071 |
|  | $(0.067)$ | $(0.036)$ | (0.041) | (0.059) | (0.047) | (0.044) | (0.033) | (0.034) | (0.044) |
| Avg. wrk. tenure | -0.027 | -0.002 | -0.007 | -0.006 | -0.011 | -0.003 | -0.003 | -0.003 | -0.008 |
|  | (0.017) | (0.003) | (0.004) | (0.009) | (0.007) | (0.005) | (0.003) | (0.003) | (0.005) |
| \% white collars | 0.453 | -0.140 | -0.004 | -0.517 | 0.114 | -0.296 | -0.057 | -0.040 | 0.032 |
|  | (0.410) | (0.068) | (0.103) | (0.199) | (0.189) | (0.109) | (0.067) | (0.070) | (0.125) |
| Fraction female | 0.311 | -0.604 | -0.564 | -0.636 | -0.407 | -0.671 | -0.563 | -0.541 | -0.554 |
|  | (0.503) | (0.102) | (0.126) | (0.334) | (0.192) | (0.171) | (0.095) | (0.117) | (0.147) |
| Avg. wkr. F.E. | 1.759 | 1.292 | 1.563 | 1.966 | 1.712 | 1.527 | 1.163 | 1.200 | 1.655 |
|  | (0.782) | (0.140) | (0.194) | (0.423) | (0.355) | (0.239) | (0.127) | (0.156) | (0.242) |
| $R^{2}$ : Between | 0.143 | 0.229 | 0.358 | 0.085 | 0.254 | 0.120 | 0.259 | 0.301 | 0.341 |
| Within | 0.094 | 0.294 | 0.462 | 0.054 | 0.264 | 0.174 | 0.371 | 0.413 | 0.415 |
| Overall | 0.091 | 0.279 | 0.451 | 0.048 | 0.259 | 0.149 | 0.354 | 0.402 | 0.406 |

## H. 10 Male wages Fem Ceo >1 yr (f)

| Dependent | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ian |  |  |  | Qu | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.322 | 0.006 | -0.101 | 0.022 | -0.189 | 0.021 | -0.004 | -0.019 | -0.129 |
|  | (0.106) | (0.020) | (0.032) | (0.022) | (0.068) | (0.020) | (0.021) | (0.027) | (0.040) |
| CEO age | 1.799 | 0.036 | 0.308 | 0.061 | 0.781 | 0.043 | 0.032 | 0.046 | 0.424 |
|  | (0.807) | (0.054) | (0.176) | (0.087) | (0.382) | (0.067) | (0.053) | (0.074) | (0.229) |
| CEO tenure | -0.002 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 | -0.001 |
|  | (0.002) | (0.000) | (0.001) | (0.001) | (0.001) | (0.001) | (0.000) | (0.001) | (0.001) |
| CEO $<1980$ | 0.020 | 0.007 | 0.015 | 0.007 | 0.024 | 0.007 | 0.008 | 0.007 | 0.016 |
|  | (0.037) | (0.005) | (0.010) | (0.008) | (0.018) | (0.006) | (0.005) | (0.007) | (0.012) |
| CEO fixed eff. | 0.325 | 0.007 | 0.052 | 0.018 | 0.136 | 0.013 | 0.003 | 0.002 | 0.072 |
|  | (0.033) | (0.006) | (0.011) | (0.010) | (0.019) | (0.007) | (0.006) | (0.009) | (0.013) |
| Avg. wrk. age | 0.080 | 0.048 | 0.076 | 0.048 | 0.075 | 0.046 | 0.049 | 0.062 | 0.082 |
|  | (0.060) | (0.037) | (0.047) | (0.040) | (0.048) | (0.037) | (0.038) | (0.044) | (0.050) |
| Avg. wrk. tenure | 0.003 | -0.003 | -0.004 | -0.000 | 0.000 | -0.002 | -0.004 | -0.004 | -0.004 |
|  | (0.010) | (0.004) | (0.003) | (0.005) | (0.006) | (0.004) | (0.004) | (0.004) | (0.004) |
| \% white collars | 0.083 | 0.097 | 0.187 | 0.017 | 0.131 | 0.040 | 0.128 | 0.207 | 0.191 |
|  | (0.206) | (0.091) | (0.088) | (0.104) | (0.134) | (0.093) | (0.093) | (0.097) | (0.103) |
| Fraction female | 0.171 | -0.180 | 0.050 | $-0.214$ | 0.181 | -0.183 | -0.176 | -0.084 | 0.103 |
|  | (0.281) | (0.141) | (0.129) | (0.145) | (0.188) | (0.135) | (0.147) | (0.164) | (0.146) |
| Avg. wkr. F.E. | 2.114 | 1.016 | 1.840 | 0.997 | 1.855 | 0.935 | 1.051 | 1.438 | 1.977 |
|  | (0.513) | (0.371) | (0.183) | (0.403) | (0.255) | (0.374) | (0.375) | (0.371) | (0.175) |
| $R^{2}$ : Between | 0.259 | 0.397 | 0.480 | 0.222 | 0.345 | 0.297 | 0.409 | 0.437 | 0.450 |
| Within | 0.403 | 0.331 | 0.474 | 0.200 | 0.384 | 0.231 | 0.368 | 0.438 | 0.470 |
| Overall | 0.371 | 0.335 | 0.473 | 0.198 | 0.376 | 0.236 | 0.371 | 0.437 | 0.465 |

## H. 11 Female wages no controls for unobserved ability (g)

| Dependent | Standard |  |  |  | Averag | wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | dian |  |  |  | Qua | tiles |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 0.460 | -0.035 | 0.072 | -0.045 | 0.159 | -0.035 | -0.032 | 0.001 | 0.097 |
|  | (0.123) | (0.020) | (0.030) | (0.033) | (0.065) | (0.026) | (0.020) | (0.029) | (0.036) |
| CEO age | -0.170 | 0.006 | -0.037 | -0.009 | -0.059 | 0.010 | 0.009 | -0.011 | -0.050 |
|  | (0.164) | (0.036) | (0.043) | (0.092) | (0.075) | (0.055) | (0.032) | (0.032) | (0.052) |
| CEO tenure | 0.006 | -0.001 | -0.000 | 0.001 | 0.001 | -0.001 | -0.002 | -0.001 | 0.000 |
|  | (0.004) | $(0.001)$ | (0.001) | $(0.002)$ | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | -0.003 | 0.020 | 0.017 | 0.018 | 0.017 | 0.019 | 0.021 | 0.018 | 0.020 |
|  | (0.059) | (0.008) | (0.012) | (0.019) | (0.028) | (0.012) | (0.008) | (0.008) | (0.015) |
| Avg. wrk. age | 0.017 | 0.003 | 0.003 | 0.005 | 0.006 | 0.005 | 0.003 | 0.002 | 0.003 |
|  | (0.011) | (0.002) | (0.003) | (0.005) | (0.004) | (0.003) | (0.002) | (0.002) | (0.003) |
| Avg. wrk. tenure | -0.020 | 0.003 | -0.001 | 0.002 | -0.004 | 0.003 | 0.001 | 0.002 | -0.002 |
|  | (0.014) | (0.003) | (0.004) | (0.008) | (0.006) | (0.005) | (0.003) | (0.003) | (0.004) |
| \% white collars | 0.886 | 0.189 | 0.390 | -0.018 | 0.544 | 0.091 | 0.241 | 0.264 | 0.449 |
|  |  | $(0.063)$ | (0.089) | $(0.137)$ | (0.155) | (0.084) | (0.060) | (0.061) | (0.106) |
| Fraction female | 0.524 | -0.410 | -0.345 | -0.349 | -0.172 | -0.445 | -0.387 | -0.367 | -0.324 |
|  | (0.464) | (0.084) | (0.118) | (0.360) | (0.198) | $(0.162)$ | (0.077) | (0.078) | (0.134) |
| $R^{2}$ : Between | 0.143 | 0.153 | 0.266 | 0.051 | 0.221 | 0.077 | 0.181 | 0.210 | 0.267 |
| Within | 0.076 | 0.347 | 0.447 | 0.104 | 0.279 | 0.215 | 0.389 | 0.424 | 0.405 |
| Overall | 0.085 | 0.316 | 0.428 | 0.075 | 0.268 | 0.171 | 0.362 | 0.405 | 0.389 |

## H. 12 Male wages No controls for unobserved ability (g)

| Dependent variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
| Expl. variable $\downarrow$ | (1) | Below <br> (2) | Above <br> (3) | $1$ <br> (4) | 10 <br> (5) | 1 <br> (6) | 2 <br> (7) | 3 <br> (8) | 4 <br> (9) |
| Female CEO | -0.187 | 0.018 | -0.043 | 0.023 | -0.104 | 0.026 | 0.013 | 0.007 | -0.060 |
|  | (0.084) | (0.017) | (0.027) | (0.022) | (0.054) | (0.018) | (0.017) | (0.021) | (0.034) |
| CEO age | 0.240 | 0.000 | 0.052 | -0.027 | 0.121 | -0.020 | 0.012 | 0.027 | 0.068 |
|  | (0.141) | (0.026) | (0.043) | $(0.034)$ | (0.078) | (0.027) | (0.028) | (0.033) | (0.053) |
| CEO tenure | 0.001 | -0.001 | -0.001 | -0.001 | -0.000 | -0.001 | -0.001 | -0.001 | -0.000 |
|  | (0.003) | (0.001) | (0.001) | $(0.001)$ | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO < 1980 | 0.039 | 0.011 | 0.024 | 0.011 | 0.036 | 0.010 | 0.012 | 0.012 | 0.026 |
|  | (0.041) | (0.006) | (0.012) | (0.009) | (0.021) | (0.007) | (0.006) | (0.008) | (0.014) |
| Avg. wrk. age | -0.002 | 0.006 | 0.001 | 0.007 | 0.000 | 0.007 | 0.005 | 0.002 | 0.001 |
|  | (0.006) | (0.002) | (0.003) | (0.003) | (0.004) | (0.002) | (0.002) | (0.002) | (0.003) |
| Avg. wrk. tenure | 0.004 | 0.001 | 0.002 | 0.003 | 0.004 | 0.002 | 0.001 | 0.002 | 0.002 |
|  | (0.009) | (0.002) | (0.004) | (0.003) | (0.006) | (0.002) | (0.002) | (0.003) | (0.005) |
| \% white collars | 0.650 | 0.356 | 0.659 | 0.271 | 0.614 | 0.278 | 0.396 | 0.573 | 0.700 |
|  | (0.167) | (0.056) | (0.095) | (0.061) | (0.116) | (0.052) | (0.062) | (0.093) | (0.106) |
| Fraction female | 0.587 | -0.031 | 0.338 | -0.065 | 0.504 | -0.045 | -0.022 | 0.126 | 0.419 |
|  | (0.295) | (0.054) | (0.131) | (0.071) | (0.216) | (0.057) | (0.057) | (0.073) | (0.162) |
| $R^{2}$ : Between | 0.145 | 0.300 | 0.315 | 0.172 | 0.232 | 0.234 | 0.306 | 0.295 | 0.300 |
| Within | 0.158 | 0.447 | 0.425 | 0.353 | 0.229 | 0.401 | 0.439 | 0.493 | 0.388 |
| Overall | 0.147 | 0.434 | 0.416 | 0.315 | 0.223 | 0.377 | 0.429 | 0.477 | 0.379 |

## H. 13 Female wages IV on (a) (IV1)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 0.991 | -0.077 | 0.083 | -0.423 | 0.193 | -0.194 | 0.002 | 0.001 | 0.093 |
|  | (0.428) | (0.078) | (0.100) | (0.255) | (0.228) | (0.111) | (0.059) | (0.062) | (0.140) |
| CEO age | 0.337 | 0.051 | 0.047 | -0.210 | 0.078 | -0.023 | 0.106 | 0.043 | 0.038 |
|  | $(0.825)$ | (0.100) | (0.146) | (0.441) | (0.320) | (0.190) | (0.095) | (0.096) | (0.192) |
| CEO tenure | 0.004 | -0.001 | -0.000 | 0.003 | 0.001 | 0.000 | -0.002 | -0.001 | 0.000 |
|  | $(0.005)$ | $(0.001)$ | (0.001) | $(0.002)$ | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | -0.007 | 0.015 | 0.012 | 0.009 | 0.010 | 0.013 | 0.017 | 0.014 | 0.014 |
|  | (0.058) | (0.008) | (0.012) | (0.020) | (0.028) | (0.013) | (0.007) | (0.008) | (0.015) |
| CEO fixed eff. | 0.090 | 0.009 | 0.015 | -0.034 | 0.026 | -0.005 | 0.018 | 0.010 | 0.016 |
|  | (0.086) | (0.013) | (0.016) | (0.049) | (0.035) | (0.024) | (0.011) | (0.012) | (0.021) |
| Avg. wrk. age | 0.095 | 0.054 | 0.068 | 0.085 | 0.078 | 0.066 | 0.049 | 0.051 | 0.072 |
|  | (0.068) | (0.035) | (0.042) | (0.059) | (0.048) | (0.044) | (0.032) | (0.034) | (0.045) |
| Avg. wrk. tenure | -0.024 | -0.002 | -0.007 | -0.007 | -0.011 | -0.004 | -0.003 | -0.003 | -0.008 |
|  | (0.016) | (0.003) | (0.004) | (0.010) | (0.007) | (0.005) | (0.003) | (0.003) | (0.005) |
| \% white collars | 0.336 | -0.127 | -0.014 | -0.469 | 0.089 | $-0.272$ | -0.052 | -0.038 | 0.020 |
|  | $(0.412)$ | (0.070) | (0.106) | (0.198) | (0.191) | (0.110) | (0.068) | (0.073) | (0.128) |
| Fraction female | 0.163 | -0.590 | -0.578 | -0.575 | -0.438 | -0.640 | -0.559 | -0.541 | -0.571 |
|  | (0.524) | (0.108) | (0.128) | (0.337) | (0.198) | (0.177) | (0.101) | (0.124) | (0.148) |
| Avg. wkr. F.E. | 1.969 | 1.250 | 1.577 | 1.889 | 1.764 | 1.471 | 1.131 | 1.181 | 1.679 |
|  | (0.728) | (0.157) | (0.192) | (0.439) | (0.333) | (0.257) | (0.139) | (0.171) | (0.234) |

## H. 14 Male wages IV on (a) (IV1)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.248 | 0.095 | -0.017 | 0.093 | -0.089 | 0.092 | 0.094 | 0.076 | -0.051 |
|  | (0.280) | (0.055) | (0.109) | (0.102) | (0.188) | (0.065) | (0.071) | (0.088) | (0.132) |
| CEO age | 1.743 | 0.083 | 0.322 | 0.101 | 0.777 | 0.084 | 0.080 | 0.089 | 0.427 |
|  | (0.786) | (0.113) | (0.225) | (0.133) | (0.412) | (0.108) | (0.128) | (0.148) | (0.271) |
| CEO tenure | -0.002 | -0.001 | -0.001 | -0.001 | -0.002 | -0.001 | -0.001 | -0.001 | -0.001 |
|  | (0.002) | (0.001) | (0.001) | (0.001) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO < 1980 | 0.023 | 0.008 | 0.016 | 0.008 | 0.026 | 0.007 | 0.008 | 0.008 | 0.018 |
|  | (0.036) | (0.005) | (0.010) | (0.008) | (0.019) | (0.006) | (0.005) | (0.007) | (0.013) |
| CEO fixed eff. | 0.317 | 0.014 | 0.054 | 0.024 | 0.136 | 0.019 | 0.011 | 0.009 | 0.073 |
|  | (0.047) | (0.011) | (0.018) | (0.015) | (0.028) | (0.011) | (0.013) | (0.016) | (0.020) |
| Avg. wrk. age | 0.074 | 0.048 | 0.074 | 0.048 | 0.071 | 0.046 | 0.048 | 0.061 | 0.079 |
|  | (0.057) | (0.038) | (0.047) | (0.041) | (0.047) | (0.037) | (0.038) | (0.044) | (0.050) |
| Avg. wrk. tenure | 0.003 | -0.003 | -0.004 | 0.000 | 0.000 | -0.001 | -0.003 | -0.003 | -0.004 |
|  | (0.010) | $(0.004)$ | (0.004) | (0.005) | (0.006) | (0.004) | (0.004) | (0.004) | (0.004) |
| \% white collars | 0.132 | 0.088 | 0.195 | 0.007 | 0.152 | 0.030 | 0.120 | 0.202 | 0.205 |
|  | (0.199) | $(0.090)$ | (0.090) | (0.101) | (0.132) | (0.091) | (0.094) | (0.099) | (0.104) |
| Fraction female | 0.237 | -0.191 | 0.062 | -0.225 | 0.215 | -0.194 | -0.186 | -0.092 | 0.123 |
|  | (0.285) | (0.140) | (0.133) | (0.138) | (0.193) | (0.130) | (0.148) | (0.162) | (0.150) |
| Avg. wkr. F.E. | 1.965 | 1.022 | 1.796 | 1.010 | 1.772 | 0.948 | 1.052 | 1.432 | 1.920 |
|  | (0.478) | (0.366) | (0.196) | (0.397) | (0.250) | (0.368) | (0.371) | (0.365) | (0.187) |

## H. 15 Female wages IV on (g) (IV2)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 0.948 | -0.096 | 0.059 | -0.441 | 0.165 | -0.213 | -0.018 | -0.018 | 0.067 |
|  | (0.245) | (0.079) | (0.104) | (0.203) | (0.191) | (0.107) | (0.062) | (0.059) | (0.139) |
| CEO age | -0.104 | -0.002 | -0.039 | -0.062 | -0.058 | -0.014 | 0.011 | -0.014 | -0.054 |
|  | $(0.173)$ | (0.037) | (0.048) | (0.099) | (0.087) | (0.058) | (0.032) | (0.034) | (0.060) |
| CEO tenure | 0.005 | -0.001 | -0.000 | 0.002 | 0.001 | -0.000 | -0.002 | -0.001 | 0.000 |
|  | (0.004) | $(0.001)$ | (0.001) | (0.002) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | 0.002 | 0.020 | 0.017 | 0.014 | 0.017 | 0.017 | 0.022 | 0.018 | 0.020 |
|  | (0.059) | (0.008) | (0.012) | (0.020) | (0.028) | (0.013) | (0.008) | (0.008) | (0.015) |
| Avg. wrk. age | 0.015 | 0.003 | 0.003 | 0.007 | 0.006 | 0.005 | 0.003 | 0.002 | 0.003 |
|  | (0.011) | (0.002) | (0.003) | (0.005) | (0.004) | (0.003) | (0.002) | (0.002) | (0.003) |
| Avg. wrk. tenure | -0.019 | 0.003 | -0.001 | 0.001 | -0.004 | 0.002 | 0.001 | 0.001 | -0.002 |
|  | (0.014) | (0.003) | (0.004) | (0.008) | (0.006) | (0.005) | (0.003) | (0.003) | (0.004) |
| \% white collars | 0.849 | 0.194 | 0.391 | 0.012 | 0.543 | 0.105 | 0.239 | 0.265 | 0.451 |
|  | (0.324) | $(0.061)$ | (0.088) | (0.132) | (0.152) | (0.082) | (0.060) | (0.060) | (0.104) |
| Fraction female | 0.473 | -0.404 | -0.343 | $-0.307$ | -0.173 | -0.426 | -0.389 | -0.365 | -0.320 |
|  | (0.459) | (0.085) | (0.118) | (0.358) | (0.198) | (0.162) | (0.076) | (0.077) | (0.135) |

## H. 16 Male wages IV on (g) (IV2)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.342 | 0.078 | -0.054 | 0.075 | -0.142 | 0.076 | 0.077 | 0.054 | -0.093 |
|  | (0.224) | (0.038) | (0.083) | (0.067) | (0.147) | (0.042) | (0.046) | (0.053) | (0.101) |
| CEO age | 0.219 | 0.009 | 0.050 | -0.020 | 0.116 | -0.014 | 0.020 | 0.034 | 0.063 |
|  | (0.141) | (0.027) | (0.044) | (0.034) | (0.080) | (0.028) | (0.029) | (0.033) | (0.054) |
| CEO tenure | 0.001 | -0.001 | -0.001 | -0.001 | -0.000 | -0.001 | -0.001 | -0.001 | -0.000 |
|  | (0.003) | $(0.001)$ | (0.001) | (0.001) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO $<1980$ | 0.038 | 0.012 | 0.024 | 0.012 | 0.035 | 0.011 | 0.012 | 0.012 | 0.026 |
|  | (0.040) | (0.006) | (0.012) | (0.009) | (0.021) | (0.007) | (0.007) | (0.008) | (0.014) |
| Avg. wrk. age | -0.002 | 0.006 | 0.001 | 0.007 | 0.001 | 0.007 | 0.005 | 0.002 | 0.001 |
|  | (0.006) | (0.002) | (0.003) | (0.003) | (0.004) | (0.002) | (0.002) | (0.002) | (0.003) |
| Avg. wrk. tenure | 0.004 | 0.001 | 0.002 | 0.004 | 0.004 | 0.002 | 0.001 | 0.002 | 0.002 |
|  | (0.009) | (0.002) | (0.004) | (0.003) | (0.006) | (0.002) | (0.002) | (0.003) | (0.005) |
| \% white collars | 0.662 | 0.351 | 0.660 | 0.267 | 0.617 | 0.274 | 0.391 | 0.570 | 0.703 |
|  | (0.166) | (0.056) | (0.094) | (0.060) | (0.115) | (0.051) | (0.062) | (0.092) | (0.105) |
| Fraction female | 0.603 | -0.037 | 0.339 | -0.071 | 0.508 | -0.050 | -0.029 | 0.121 | 0.422 |
|  | (0.295) | (0.054) | (0.130) | (0.069) | (0.215) | (0.055) | (0.057) | (0.072) | (0.161) |

## H. 17 Female wages IF on (e) (IV3)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) | $\begin{gathered} 1 \\ (4) \end{gathered}$ | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 1.544 | -0.126 | 0.122 | -0.626 | 0.297 | -0.296 | -0.012 | -0.009 | 0.138 |
|  | (0.377) | (0.083) | (0.131) | (0.216) | (0.273) | (0.120) | (0.077) | (0.076) | (0.185) |
| CEO age | 0.012 | 0.000 | 0.002 | -0.005 | 0.002 | -0.002 | 0.001 | 0.001 | 0.002 |
|  | $(0.012)$ | (0.002) | (0.003) | (0.007) | (0.006) | (0.004) | (0.002) | (0.002) | (0.004) |
| CEO tenure | 0.009 | -0.000 | 0.001 | 0.006 | 0.004 | 0.002 | -0.001 | -0.000 | 0.002 |
|  | (0.008) | (0.002) | (0.002) | (0.004) | (0.004) | (0.003) | (0.002) | (0.002) | (0.003) |
| CEO $<1980$ | 0.267 | 0.015 | 0.041 | $-0.057$ | 0.086 | -0.004 | 0.029 | 0.011 | 0.052 |
|  | (0.143) | (0.030) | (0.036) | (0.086) | (0.075) | (0.047) | (0.028) | (0.027) | (0.047) |
| CEO fixed eff. | 0.094 | 0.056 | 0.068 | 0.089 | 0.080 | 0.068 | 0.050 | 0.051 | 0.073 |
|  | (0.067) | (0.036) | (0.042) | (0.059) | (0.049) | (0.044) | (0.032) | (0.034) | (0.045) |
| Avg. wrk. age | -0.034 | -0.002 | -0.008 | -0.009 | -0.014 | -0.004 | -0.002 | -0.003 | -0.009 |
|  | (0.017) | (0.003) | (0.004) | (0.010) | (0.007) | (0.005) | (0.003) | (0.003) | (0.005) |
| Avg. wrk. tenure | 0.327 | -0.133 | -0.018 | -0.469 | 0.080 | -0.277 | -0.059 | -0.040 | 0.015 |
|  | $(0.360)$ | (0.073) | (0.104) | (0.204) | (0.181) | (0.114) | (0.068) | (0.075) | (0.124) |
| \% white collars | -0.219 | -0.553 | -0.602 | -0.410 | -0.504 | $-0.561$ | -0.552 | -0.533 | -0.598 |
|  | (0.486) | (0.118) | (0.130) | (0.354) | (0.209) | (0.190) | (0.110) | (0.132) | (0.154) |
| Fraction female | 2.057 | 1.260 | 1.597 | 1.901 | 1.805 | 1.481 | 1.141 | 1.190 | 1.705 |
|  | (0.660) | (0.161) | (0.190) | (0.450) | (0.319) | (0.263) | (0.140) | (0.177) | (0.230) |
| Avg. wkr. F.E. | 0.002 | 0.010 | 0.005 | 0.017 | 0.008 | 0.012 | 0.008 | 0.004 | 0.004 |
|  | (0.022) | (0.005) | (0.003) | (0.013) | (0.006) | (0.009) | (0.005) | (0.004) | (0.004) |

## H. 18 Male wages IV on (e) (IV3)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.400 | 0.133 | -0.030 | 0.120 | -0.148 | 0.123 | 0.133 | 0.114 | -0.080 |
|  | (0.313) | (0.066) | (0.162) | (0.148) | (0.232) | (0.099) | (0.078) | (0.103) | (0.191) |
| CEO age | 0.045 | 0.001 | 0.008 | 0.001 | 0.020 | 0.001 | 0.001 | 0.001 | 0.011 |
|  | $(0.024)$ | (0.002) | (0.006) | (0.003) | (0.013) | (0.003) | (0.002) | (0.003) | (0.008) |
| CEO tenure | -0.009 | -0.002 | -0.002 | -0.002 | -0.006 | -0.002 | -0.001 | -0.001 | -0.003 |
|  | (0.005) | (0.001) | (0.002) | $(0.002)$ | (0.003) | $(0.001)$ | (0.001) | (0.001) | (0.002) |
| CEO $<1980$ | 0.832 | 0.030 | 0.165 | 0.039 | 0.389 | 0.036 | 0.024 | 0.035 | 0.218 |
|  | (0.120) | (0.025) | (0.044) | (0.039) | (0.073) | (0.030) | (0.027) | (0.033) | (0.053) |
| CEO fixed eff. | 0.078 | 0.047 | 0.075 | 0.048 | 0.072 | 0.046 | 0.048 | 0.060 | 0.080 |
|  | (0.059) | (0.038) | (0.048) | (0.041) | (0.048) | (0.037) | (0.038) | (0.044) | (0.050) |
| Avg. wrk. age | 0.004 | -0.002 | -0.003 | 0.001 | 0.002 | -0.001 | -0.003 | -0.003 | -0.003 |
|  | (0.010) | (0.004) | (0.004) | (0.005) | (0.006) | (0.004) | (0.004) | (0.004) | (0.005) |
| Avg. wrk. tenure | 0.128 | 0.083 | 0.189 | -0.000 | 0.146 | 0.024 | 0.115 | 0.195 | 0.198 |
|  | (0.181) | (0.087) | (0.088) | (0.099) | (0.123) | (0.089) | (0.091) | (0.096) | (0.101) |
| \% white collars | 0.354 | -0.225 | 0.071 | -0.253 | 0.256 | -0.225 | -0.220 | -0.121 | 0.144 |
|  | $(0.290)$ | (0.136) | (0.140) | (0.135) | (0.196) | $(0.125)$ | (0.144) | (0.161) | (0.157) |
| Fraction female | 2.012 | 1.026 | 1.803 | 1.020 | 1.785 | 0.954 | 1.054 | 1.434 | 1.928 |
|  | (0.454) | (0.360) | (0.193) | (0.392) | (0.239) | (0.362) | (0.366) | (0.361) | (0.182) |
| Avg. wkr. F.E. | 0.049 | 0.008 | 0.015 | 0.009 | 0.025 | 0.008 | 0.008 | 0.009 | 0.018 |
|  | (0.015) | (0.002) | (0.004) | (0.004) | (0.007) | (0.003) | (0.002) | (0.002) | (0.005) |

## H. 19 Female wages IV on (e) and (g) (IV4)

| Dependent $\qquad$ variable | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | 1.464 | -0.162 | 0.075 | -0.666 | 0.243 | -0.333 | -0.047 | -0.043 | 0.088 |
|  | (0.364) | (0.107) | (0.174) | (0.236) | (0.310) | (0.142) | (0.093) | (0.092) | (0.228) |
| CEO age | 0.002 | -0.000 | 0.001 | -0.002 | -0.001 | -0.001 | 0.000 | 0.001 | 0.000 |
|  | $(0.005)$ | (0.001) | (0.001) | (0.003) | (0.002) | (0.002) | (0.001) | (0.001) | (0.002) |
| CEO tenure | 0.007 | -0.001 | 0.000 | 0.005 | 0.003 | 0.001 | -0.002 | -0.001 | 0.001 |
|  | (0.007) | (0.002) | (0.002) | (0.004) | (0.004) | (0.003) | (0.002) | (0.002) | (0.003) |
| CEO $<1980$ | 0.009 | 0.004 | 0.002 | 0.011 | 0.005 | 0.007 | 0.003 | 0.002 | 0.003 |
|  | (0.011) | (0.002) | (0.003) | (0.006) | (0.005) | (0.004) | (0.002) | (0.002) | (0.004) |
| Avg. wrk. age | -0.025 | 0.004 | -0.001 | -0.001 | -0.006 | 0.003 | 0.003 | 0.002 | -0.002 |
|  | (0.014) | (0.003) | (0.004) | (0.009) | (0.006) | (0.005) | (0.003) | (0.003) | (0.005) |
| Avg. wrk. tenure | 0.866 | 0.191 | 0.393 | 0.015 | 0.546 | 0.102 | 0.235 | 0.266 | 0.454 |
|  | (0.295) | (0.062) | (0.088) | (0.134) | (0.150) | (0.083) | (0.059) | (0.060) | (0.104) |
| \% white collars | 0.109 | -0.359 | -0.355 | -0.122 | -0.224 | -0.334 | -0.375 | -0.349 | -0.334 |
|  | (0.452) | (0.089) | (0.130) | (0.368) | (0.229) | (0.170) | (0.079) | (0.081) | (0.155) |
| Fraction female | 0.001 | 0.008 | 0.003 | 0.014 | 0.006 | 0.010 | 0.006 | 0.002 | 0.002 |
|  | (0.022) | (0.006) | (0.003) | (0.013) | (0.006) | (0.009) | (0.005) | (0.003) | (0.004) |

## H. 20 Male wages IV on (e) and (g) (IV4)

| Dependent <br> variable $\rightarrow$ | Standard deviation | Average wages |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Median |  | Decile |  | Quantiles |  |  |  |
|  |  | Below <br> (2) | Above <br> (3) |  | $\begin{aligned} & 10 \\ & (5) \end{aligned}$ | $\begin{gathered} 1 \\ (6) \end{gathered}$ | $\begin{gathered} 2 \\ (7) \end{gathered}$ | $\begin{gathered} 3 \\ (8) \end{gathered}$ | $\begin{gathered} 4 \\ (9) \end{gathered}$ |
| Female CEO | -0.559 | 0.103 | -0.101 | 0.090 | -0.246 | 0.095 | 0.102 | 0.071 | -0.162 |
|  | (0.297) | (0.059) | (0.124) | (0.120) | (0.207) | (0.081) | (0.062) | (0.074) | (0.149) |
| CEO age | 0.013 | -0.000 | 0.002 | -0.001 | 0.006 | -0.000 | 0.000 | 0.000 | 0.003 |
|  | (0.004) | $(0.001)$ | (0.001) | (0.001) | (0.002) | (0.001) | (0.001) | (0.001) | (0.001) |
| CEO tenure | -0.014 | -0.002 | -0.004 | -0.003 | -0.008 | -0.002 | -0.002 | -0.002 | -0.005 |
|  | $(0.005)$ | (0.001) | (0.002) | (0.001) | (0.003) | (0.001) | (0.001) | (0.001) | (0.002) |
| CEO $<1980$ | -0.004 | 0.005 | 0.001 | 0.006 | -0.001 | 0.006 | 0.004 | 0.001 | 0.001 |
|  | (0.007) | (0.002) | (0.003) | (0.003) | (0.004) | (0.002) | (0.002) | (0.002) | (0.003) |
| Avg. wrk. age | 0.012 | 0.002 | 0.005 | 0.005 | 0.010 | 0.003 | 0.002 | 0.003 | 0.006 |
|  | (0.010) | (0.002) | (0.004) | (0.003) | (0.007) | (0.002) | (0.002) | (0.003) | (0.005) |
| Avg. wrk. tenure | 0.679 | 0.347 | 0.658 | 0.263 | 0.620 | 0.270 | 0.386 | 0.564 | 0.702 |
|  | (0.165) | (0.055) | (0.094) | (0.060) | (0.116) | (0.051) | (0.061) | (0.092) | (0.105) |
| \% white collars | 0.710 | -0.066 | 0.358 | $-0.095$ | 0.553 | $-0.077$ | -0.057 | 0.101 | 0.454 |
|  | (0.295) | (0.060) | (0.134) | (0.080) | (0.217) | (0.063) | (0.064) | (0.079) | (0.164) |
| Fraction female | 0.052 | 0.006 | 0.013 | 0.008 | 0.025 | 0.006 | 0.006 | 0.007 | 0.016 |
|  |  | (0.002) | (0.004) | (0.004) | (0.007) | (0.003) | (0.002) | (0.002) | (0.005) |

## H. 21 Performance Full Panel (b)

| Dependent variable | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . variable $\downarrow$ |  |  | (3) | (4) | (5) | (6) |
| Female CEO | $\begin{gathered} 0.029 \\ (0.042) \end{gathered}$ | $\begin{aligned} & -0.009 \\ & (0.058) \end{aligned}$ | $\begin{aligned} & -0.049 \\ & (0.044) \end{aligned}$ | $\begin{aligned} & -0.093 \\ & (0.055) \end{aligned}$ | $\begin{aligned} & -0.061 \\ & (0.041) \end{aligned}$ | $\begin{aligned} & -0.096 \\ & (0.054) \end{aligned}$ |
| Interaction |  | $\begin{gathered} 0.123 \\ (0.142) \end{gathered}$ |  | $\begin{gathered} 0.144 \\ (0.124) \end{gathered}$ |  | $\begin{gathered} 0.115 \\ (0.114) \end{gathered}$ |
| CEO age | $\begin{gathered} 0.180 \\ (0.214) \end{gathered}$ | $\begin{gathered} 0.182 \\ (0.213) \end{gathered}$ | $\begin{gathered} 0.263 \\ (0.229) \end{gathered}$ | $\begin{gathered} 0.265 \\ (0.229) \end{gathered}$ | $\begin{gathered} 0.216 \\ (0.228) \end{gathered}$ | $\begin{gathered} 0.218 \\ (0.229) \end{gathered}$ |
| CEO tenure | $\begin{aligned} & -0.004 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.004 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.002) \end{aligned}$ |
| CEO started <1980 | $\begin{gathered} 0.029 \\ (0.020) \end{gathered}$ | $\begin{gathered} 0.029 \\ (0.020) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.021) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.021) \end{gathered}$ | $\begin{aligned} & -0.009 \\ & (0.021) \end{aligned}$ | $\begin{gathered} -0.009 \\ (0.021) \end{gathered}$ |
| CEO fixed eff. | $\begin{gathered} 0.040 \\ (0.026) \end{gathered}$ | $\begin{gathered} 0.040 \\ (0.026) \end{gathered}$ | $\begin{gathered} 0.059 \\ (0.030) \end{gathered}$ | $\begin{gathered} 0.060 \\ (0.030) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.032) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.032) \end{gathered}$ |
| Avg. Wkr. age | $\begin{gathered} 0.041 \\ (0.046) \end{gathered}$ | $\begin{gathered} 0.041 \\ (0.047) \end{gathered}$ | $\begin{gathered} 0.050 \\ (0.051) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.052) \end{gathered}$ | $\begin{gathered} 0.047 \\ (0.044) \end{gathered}$ | $\begin{gathered} 0.048 \\ (0.045) \end{gathered}$ |
| Avg wkr. tenure | $\begin{gathered} 0.000 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.010) \end{gathered}$ | $\begin{aligned} & -0.007 \\ & (0.009) \end{aligned}$ | $\begin{aligned} & -0.007 \\ & (0.009) \end{aligned}$ | $\begin{aligned} & -0.018 \\ & (0.008) \end{aligned}$ | $\begin{aligned} & -0.018 \\ & (0.008) \end{aligned}$ |
| \% white collars | $\begin{gathered} 0.290 \\ (0.165) \end{gathered}$ | $\begin{gathered} 0.286 \\ (0.166) \end{gathered}$ | $\begin{aligned} & -0.139 \\ & (0.176) \end{aligned}$ | $\begin{aligned} & -0.145 \\ & (0.178) \end{aligned}$ | $\begin{aligned} & -0.055 \\ & (0.162) \end{aligned}$ | $\begin{aligned} & -0.059 \\ & (0.163) \end{aligned}$ |
| Fraction female | $\begin{aligned} & -0.502 \\ & (0.245) \end{aligned}$ | $\begin{aligned} & -0.511 \\ & (0.247) \end{aligned}$ | $\begin{gathered} -0.592 \\ (0.185) \end{gathered}$ | $\begin{aligned} & -0.603 \\ & (0.187) \end{aligned}$ | $\begin{aligned} & -0.511 \\ & (0.185) \end{aligned}$ | $\begin{aligned} & -0.519 \\ & (0.186) \end{aligned}$ |
| Avg. wkr. F.E. | $\begin{gathered} 1.353 \\ (0.340) \end{gathered}$ | $\begin{gathered} 1.366 \\ (0.338) \end{gathered}$ | $\begin{gathered} 1.405 \\ (0.386) \end{gathered}$ | $\begin{gathered} 1.421 \\ (0.392) \end{gathered}$ | $\begin{gathered} 1.158 \\ (0.375) \end{gathered}$ | $\begin{gathered} 1.170 \\ (0.378) \end{gathered}$ |
| $R^{2}$ : Between | 0.512 | 0.513 | 0.137 | 0.138 | 0.115 | 0.115 |
| Within | 0.062 | 0.063 | 0.048 | 0.049 | 0.409 | 0.409 |
| Overall | 0.093 | 0.093 | 0.081 | 0.082 | 0.400 | 0.401 |

## H. 22 Performance Fracfemanagers (c)



## H. 23 Performance BossLag (d)

| Dependent variable | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . variable $\downarrow$ |  | (2) | (3) | (4) | (5) | (6) |
| Female CEO | $\begin{gathered} 0.062 \\ (0.098) \end{gathered}$ | $\begin{aligned} & -0.133 \\ & (0.112) \end{aligned}$ | $\begin{aligned} & -0.038 \\ & (0.081) \end{aligned}$ | $\begin{aligned} & -0.236 \\ & (0.099) \end{aligned}$ | $\begin{aligned} & -0.070 \\ & (0.058) \end{aligned}$ | $\begin{aligned} & -0.206 \\ & (0.094) \end{aligned}$ |
| Interaction |  | $\begin{gathered} 0.727 \\ (0.451) \end{gathered}$ |  | $\begin{gathered} 0.737 \\ (0.373) \end{gathered}$ |  | $\begin{gathered} 0.507 \\ (0.374) \end{gathered}$ |
| CEO age | $\begin{gathered} 0.205 \\ (0.255) \end{gathered}$ | $\begin{gathered} 0.204 \\ (0.252) \end{gathered}$ | $\begin{gathered} 0.454 \\ (0.279) \end{gathered}$ | $\begin{gathered} 0.452 \\ (0.274) \end{gathered}$ | $\begin{gathered} 0.330 \\ (0.251) \end{gathered}$ | $\begin{gathered} 0.329 \\ (0.248) \end{gathered}$ |
| CEO tenure | $\begin{aligned} & -0.003 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.002 \\ & (0.003) \end{aligned}$ | $\begin{gathered} -0.002 \\ (0.003) \end{gathered}$ | $\begin{aligned} & -0.002 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.003) \end{aligned}$ |
| CEO started <1980 | $\begin{gathered} 0.029 \\ (0.025) \end{gathered}$ | $\begin{gathered} 0.029 \\ (0.024) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.026) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.026) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.026) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.026) \end{gathered}$ |
| CEO fixed eff. | $\begin{gathered} 0.016 \\ (0.031) \end{gathered}$ | $\begin{gathered} 0.015 \\ (0.031) \end{gathered}$ | $\begin{gathered} 0.066 \\ (0.029) \end{gathered}$ | $\begin{gathered} 0.066 \\ (0.029) \end{gathered}$ | $\begin{gathered} 0.047 \\ (0.029) \end{gathered}$ | $\begin{gathered} 0.046 \\ (0.029) \end{gathered}$ |
| Avg. Wkr. age | $\begin{gathered} 0.026 \\ (0.046) \end{gathered}$ | $\begin{gathered} 0.028 \\ (0.047) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.054) \end{gathered}$ | $\begin{gathered} 0.053 \\ (0.055) \end{gathered}$ | $\begin{gathered} 0.056 \\ (0.050) \end{gathered}$ | $\begin{gathered} 0.057 \\ (0.051) \end{gathered}$ |
| Avg wkr. tenure | $\begin{gathered} 0.005 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.014) \end{gathered}$ | $\begin{aligned} & -0.013 \\ & (0.012) \end{aligned}$ | $\begin{aligned} & -0.013 \\ & (0.012) \end{aligned}$ | $\begin{aligned} & -0.030 \\ & (0.011) \end{aligned}$ | $\begin{aligned} & -0.030 \\ & (0.011) \end{aligned}$ |
| \% white collars | $\begin{gathered} 0.272 \\ (0.234) \end{gathered}$ | $\begin{gathered} 0.264 \\ (0.234) \end{gathered}$ | $\begin{aligned} & -0.127 \\ & (0.267) \end{aligned}$ | $\begin{aligned} & -0.135 \\ & (0.268) \end{aligned}$ | $\begin{gathered} -0.094 \\ (0.268) \end{gathered}$ | $\begin{aligned} & -0.099 \\ & (0.267) \end{aligned}$ |
| Fraction female | $\begin{aligned} & -0.303 \\ & (0.405) \end{aligned}$ | $\begin{aligned} & -0.359 \\ & (0.409) \end{aligned}$ | $\begin{aligned} & -0.495 \\ & (0.274) \end{aligned}$ | $\begin{gathered} -0.552 \\ (0.271) \end{gathered}$ | $\begin{aligned} & -0.481 \\ & (0.283) \end{aligned}$ | $\begin{aligned} & -0.521 \\ & (0.280) \end{aligned}$ |
| Avg. wkr. F.E. | $\begin{gathered} 1.189 \\ (0.476) \end{gathered}$ | $\begin{gathered} 1.212 \\ (0.470) \end{gathered}$ | $\begin{gathered} 1.660 \\ (0.526) \end{gathered}$ | $\begin{gathered} 1.683 \\ (0.525) \end{gathered}$ | $\begin{gathered} 1.475 \\ (0.537) \end{gathered}$ | $\begin{gathered} 1.490 \\ (0.530) \end{gathered}$ |
| $R^{2}$ : Between | 0.590 | 0.592 | 0.217 | 0.220 | 0.179 | 0.180 |
| Within | 0.003 | 0.002 | 0.016 | 0.022 | 0.193 | 0.196 |
| Overall | 0.026 | 0.030 | 0.046 | 0.055 | 0.186 | 0.189 |

## H. 24 Performance No controls for unobserved ability (e)

| Dependent variable | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . variable $\downarrow$ | (1) | (2) | (3) | (4) | (5) | (6) |
| Female CEO | 0.027 | -0.104 | -0.064 | -0.234 | -0.072 | -0.200 |
|  | (0.061) | (0.071) | (0.058) | (0.057) | (0.045) | (0.051) |
| Interaction |  | 0.523 |  | 0.677 |  | 0.513 |
|  |  | (0.169) |  | (0.168) |  | (0.175) |
| CEO age | 0.123 | 0.121 | 0.124 | 0.121 | 0.093 | 0.091 |
|  | (0.103) | (0.103) | (0.119) | (0.119) | (0.121) | (0.121) |
| CEO tenure | -0.003 | -0.003 | -0.002 | -0.002 | -0.001 | -0.001 |
|  | (0.002) | (0.002) | (0.003) | (0.003) | (0.003) | (0.003) |
| $\mathrm{CEO}<1980$ | 0.033 | 0.032 | 0.020 | 0.019 | 0.016 | 0.016 |
|  | $(0.024)$ | $(0.024)$ | $(0.026)$ | $(0.026)$ | $(0.026)$ | (0.026) |
| Avg. Wkr. age | -0.022 | -0.022 | -0.016 | -0.015 | -0.004 | -0.004 |
|  | (0.008) | $(0.008)$ | (0.007) | (0.007) | (0.007) | (0.007) |
| Avg wkr. tenure | 0.009 | 0.009 | -0.008 | -0.008 | -0.025 | -0.025 |
|  | (0.013) | (0.013) | (0.011) | (0.011) | (0.011) | (0.011) |
| \% white collars | 0.582 | 0.583 | 0.306 | 0.308 | 0.289 | 0.290 |
|  | (0.239) | $(0.239)$ | (0.247) | (0.247) | (0.249) | (0.249) |
| Fraction female | -0.132 | -0.190 | -0.242 | -0.317 | -0.258 | -0.315 |
|  | (0.394) | (0.407) | (0.231) | (0.245) | (0.224) | (0.232) |
| $R^{2}$ : Between | 0.586 | 0.587 | 0.205 | 0.208 | 0.169 | 0.171 |
| Within | 0.003 | 0.002 | 0.001 | 0.003 | 0.133 | 0.135 |
| Overall | 0.024 | 0.027 | 0.016 | 0.021 | 0.133 | 0.135 |

## H. 25 Performance IV on (a) (IV1)

| Dependent $\qquad$ variable | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| variable $\downarrow$ |  | (2) | (3) | (4) | (5) | (6) |
| Female CEO | $\begin{gathered} 0.235 \\ (0.582) \end{gathered}$ | $\begin{aligned} & -0.009 \\ & (1.618) \end{aligned}$ | $\begin{gathered} -0.184 \\ (0.877) \end{gathered}$ | $\begin{aligned} & -0.989 \\ & (2.529) \end{aligned}$ | $\begin{aligned} & -0.374 \\ & (1.065) \end{aligned}$ | $\begin{aligned} & -1.541 \\ & (2.463) \end{aligned}$ |
| Interaction |  | $\begin{gathered} 0.454 \\ (7.542) \end{gathered}$ |  | $\begin{gathered} 1.530 \\ (13.478) \end{gathered}$ |  | $\begin{gathered} 2.205 \\ (12.867) \end{gathered}$ |
| CEO age | $\begin{gathered} 0.314 \\ (0.689) \end{gathered}$ | $\begin{gathered} 0.246 \\ (1.017) \end{gathered}$ | $\begin{gathered} 0.373 \\ (1.021) \end{gathered}$ | $\begin{gathered} 0.152 \\ (1.382) \end{gathered}$ | $\begin{gathered} 0.161 \\ (1.287) \end{gathered}$ | $\begin{gathered} -0.161 \\ (1.450) \end{gathered}$ |
| CEO tenure | $\begin{aligned} & -0.004 \\ & (0.003) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.005) \end{aligned}$ | $\begin{gathered} -0.002 \\ (0.004) \end{gathered}$ | $\begin{aligned} & -0.000 \\ & (0.007) \end{aligned}$ | $\begin{aligned} & -0.001 \\ & (0.005) \end{aligned}$ | $\begin{gathered} 0.002 \\ (0.006) \end{gathered}$ |
| CEO started <1980 | $\begin{gathered} 0.030 \\ (0.026) \end{gathered}$ | $\begin{gathered} 0.028 \\ (0.041) \end{gathered}$ | $\begin{gathered} 0.011 \\ (0.028) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.060) \end{gathered}$ | $\begin{gathered} 0.008 \\ (0.029) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.061) \end{gathered}$ |
| CEO fixed eff. | $\begin{gathered} 0.033 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.022 \\ (0.120) \end{gathered}$ | $\begin{gathered} 0.054 \\ (0.125) \end{gathered}$ | $\begin{gathered} 0.021 \\ (0.170) \end{gathered}$ | $\begin{gathered} 0.021 \\ (0.154) \end{gathered}$ | $\begin{aligned} & -0.028 \\ & (0.182) \end{aligned}$ |
| Avg. Wkr. age | $\begin{gathered} 0.027 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.030 \\ (0.074) \end{gathered}$ | $\begin{gathered} 0.051 \\ (0.056) \end{gathered}$ | $\begin{gathered} 0.060 \\ (0.109) \end{gathered}$ | $\begin{gathered} 0.056 \\ (0.052) \end{gathered}$ | $\begin{gathered} 0.069 \\ (0.103) \end{gathered}$ |
| Avg wkr. tenure | $\begin{gathered} 0.005 \\ (0.015) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.016) \end{gathered}$ | $\begin{aligned} & -0.014 \\ & (0.014) \end{aligned}$ | $\begin{gathered} -0.016 \\ (0.017) \end{gathered}$ | $\begin{aligned} & -0.031 \\ & (0.015) \end{aligned}$ | $\begin{gathered} -0.034 \\ (0.017) \end{gathered}$ |
| \% white collars | $\begin{gathered} 0.252 \\ (0.261) \end{gathered}$ | $\begin{gathered} 0.252 \\ (0.400) \end{gathered}$ | $\begin{aligned} & -0.105 \\ & (0.326) \end{aligned}$ | $\begin{aligned} & -0.108 \\ & (0.537) \end{aligned}$ | $\begin{aligned} & -0.055 \\ & (0.352) \end{aligned}$ | $\begin{aligned} & -0.058 \\ & (0.529) \end{aligned}$ |
| Fraction female | $\begin{gathered} -0.338 \\ (0.421) \end{gathered}$ | $\begin{aligned} & -0.379 \\ & (0.784) \end{aligned}$ | $\begin{aligned} & -0.479 \\ & (0.306) \end{aligned}$ | $\begin{gathered} -0.619 \\ (1.081) \end{gathered}$ | $\begin{aligned} & -0.439 \\ & (0.311) \end{aligned}$ | $\begin{gathered} -0.640 \\ (1.062) \end{gathered}$ |
| Avg. wkr. F.E. | $\begin{gathered} 1.221 \\ (0.486) \end{gathered}$ | $\begin{gathered} 1.269 \\ (1.074) \end{gathered}$ | $\begin{gathered} 1.634 \\ (0.568) \end{gathered}$ | $\begin{gathered} 1.793 \\ (1.841) \end{gathered}$ | $\begin{gathered} 1.432 \\ (0.598) \end{gathered}$ | $\begin{gathered} 1.662 \\ (1.788) \end{gathered}$ |

## H. 26 Performance IV on (d) (IV2)



## H. 27 Performance IV on (e) (IV3)

| Dependent variable | Sales per employee |  | Value added per employee |  | TFP |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . variable $\downarrow$ |  |  | (3) | (4) | (5) | (6) |
| Female CEO | $\begin{gathered} 0.341 \\ (0.497) \end{gathered}$ | $\begin{aligned} & -0.061 \\ & (3.535) \end{aligned}$ | $\begin{aligned} & -0.265 \\ & (0.526) \end{aligned}$ | $\begin{aligned} & -1.113 \\ & (5.450) \end{aligned}$ | $\begin{aligned} & -0.560 \\ & (0.577) \end{aligned}$ | $\begin{aligned} & -1.700 \\ & (5.981) \end{aligned}$ |
| Interaction |  | $\begin{gathered} 0.827 \\ (5.641) \end{gathered}$ |  | $\begin{gathered} 1.747 \\ (9.380) \end{gathered}$ |  | $\begin{gathered} 2.350 \\ (10.134) \end{gathered}$ |
| CEO age | $\begin{gathered} 0.007 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.021) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.024) \end{gathered}$ | $\begin{gathered} -0.004 \\ (0.012) \end{gathered}$ | $\begin{aligned} & -0.006 \\ & (0.026) \end{aligned}$ |
| CEO tenure | $\begin{aligned} & -0.004 \\ & (0.005) \end{aligned}$ | $\begin{aligned} & -0.003 \\ & (0.019) \end{aligned}$ | $\begin{gathered} 0.003 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.018) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.009 \\ (0.020) \end{gathered}$ |
| CEO started <1980 | $\begin{gathered} 0.154 \\ (0.118) \end{gathered}$ | $\begin{gathered} 0.147 \\ (0.221) \end{gathered}$ | $\begin{gathered} 0.077 \\ (0.129) \end{gathered}$ | $\begin{gathered} 0.062 \\ (0.253) \end{gathered}$ | $\begin{aligned} & -0.060 \\ & (0.142) \end{aligned}$ | $\begin{aligned} & -0.081 \\ & (0.268) \end{aligned}$ |
| CEO fixed eff. | $\begin{gathered} 0.025 \\ (0.048) \end{gathered}$ | $\begin{gathered} 0.027 \\ (0.052) \end{gathered}$ | $\begin{gathered} 0.055 \\ (0.056) \end{gathered}$ | $\begin{gathered} 0.059 \\ (0.058) \end{gathered}$ | $\begin{gathered} 0.061 \\ (0.052) \end{gathered}$ | $\begin{gathered} 0.066 \\ (0.055) \end{gathered}$ |
| Avg. Wkr. age | $\begin{gathered} 0.007 \\ (0.014) \end{gathered}$ | $\begin{gathered} 0.006 \\ (0.019) \end{gathered}$ | $\begin{aligned} & -0.017 \\ & (0.013) \end{aligned}$ | $\begin{gathered} -0.018 \\ (0.016) \end{gathered}$ | $\begin{aligned} & -0.034 \\ & (0.013) \end{aligned}$ | $\begin{aligned} & -0.035 \\ & (0.017) \end{aligned}$ |
| Avg wkr. tenure | $\begin{gathered} 0.234 \\ (0.238) \end{gathered}$ | $\begin{gathered} 0.240 \\ (0.284) \end{gathered}$ | $\begin{aligned} & -0.124 \\ & (0.271) \end{aligned}$ | $\begin{aligned} & -0.111 \\ & (0.345) \end{aligned}$ | $\begin{aligned} & -0.065 \\ & (0.272) \end{aligned}$ | $\begin{aligned} & -0.047 \\ & (0.370) \end{aligned}$ |
| \% white collars | $\begin{aligned} & -0.429 \\ & (0.463) \end{aligned}$ | $\begin{aligned} & -0.469 \\ & (0.456) \end{aligned}$ | $\begin{aligned} & -0.399 \\ & (0.315) \end{aligned}$ | $\begin{aligned} & -0.483 \\ & (0.432) \end{aligned}$ | $\begin{aligned} & -0.281 \\ & (0.339) \end{aligned}$ | $\begin{aligned} & -0.393 \\ & (0.449) \end{aligned}$ |
| Fraction female | $\begin{gathered} 1.219 \\ (0.466) \end{gathered}$ | $\begin{gathered} 1.231 \\ (0.510) \end{gathered}$ | $\begin{gathered} 1.678 \\ (0.521) \end{gathered}$ | $\begin{gathered} 1.704 \\ (0.601) \end{gathered}$ | $\begin{gathered} 1.474 \\ (0.545) \end{gathered}$ | $\begin{gathered} 1.509 \\ (0.619) \end{gathered}$ |
| Avg. wkr. F.E. | $\begin{gathered} 0.028 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.028 \\ (0.011) \end{gathered}$ | $\begin{aligned} & -0.018 \\ & (0.014) \end{aligned}$ | $\begin{aligned} & -0.018 \\ & (0.016) \end{aligned}$ | $\begin{gathered} -0.015 \\ (0.014) \end{gathered}$ | $\begin{aligned} & -0.015 \\ & (0.017) \end{aligned}$ |

## H. 28 Performance IV on (d) and (e) (IV4)

| Dependent <br> variable | Sales per <br> employee |  | Value added <br> per employee <br> variable $\downarrow$ |  | $(1)$ | $(2)$ | TFP |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (3) | $(4)$ | $(5)$ | $(6)$ |  |  |  |  |  |
| Female CEO | 0.292 | -0.218 | -0.323 | -1.336 | -0.593 | -1.887 |  |  |
|  | $(0.263)$ | $(0.517)$ | $(0.358)$ | $(0.859)$ | $(0.427)$ | $(1.241)$ |  |  |
| Interaction |  | 1.051 |  | 2.087 |  | 2.668 |  |  |
|  |  | $(0.749)$ |  | $(1.391)$ |  | $(1.956)$ |  |  |
| CEO age | 0.001 | 0.001 | -0.000 | -0.002 | -0.001 | -0.003 |  |  |
|  | $(0.003)$ | $(0.002)$ | $(0.003)$ | $(0.003)$ | $(0.003)$ | $(0.004)$ |  |  |
| CEO tenure | -0.005 | -0.004 | 0.002 | 0.005 | 0.005 | 0.009 |  |  |
|  | $(0.004)$ | $(0.004)$ | $(0.005)$ | $(0.006)$ | $(0.005)$ | $(0.008)$ |  |  |
| CEO <1980 | -0.025 | -0.024 | -0.014 | -0.011 | 0.000 | 0.004 |  |  |
|  | $(0.008)$ | $(0.008)$ | $(0.008)$ | $(0.009)$ | $(0.008)$ | $(0.010)$ |  |  |
| Avg. Wkr. age | 0.012 | 0.012 | -0.009 | -0.011 | -0.027 | -0.029 |  |  |
|  | $(0.012)$ | $(0.012)$ | $(0.011)$ | $(0.012)$ | $(0.011)$ | $(0.012)$ |  |  |
| Avg wkr. tenure | 0.553 | 0.564 | 0.310 | 0.333 | 0.311 | 0.340 |  |  |
|  | $(0.238)$ | $(0.238)$ | $(0.242)$ | $(0.243)$ | $(0.245)$ | $(0.249)$ |  |  |
| \% white collars | -0.234 | -0.282 | -0.136 | -0.232 | -0.057 | -0.179 |  |  |
|  | $(0.426)$ | $(0.405)$ | $(0.249)$ | $(0.252)$ | $(0.265)$ | $(0.261)$ |  |  |
| Fraction female | 0.027 | 0.027 | -0.020 | -0.020 | -0.018 | -0.019 |  |  |
|  | $(0.010)$ | $(0.010)$ | $(0.014)$ | $(0.014)$ | $(0.013)$ | $(0.013)$ |  |  |

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[^1]:    ${ }^{1}$ Consider two normal distributions $F, G$ with different variance $\left(\sigma_{F}>\sigma_{G}\right)$. Then, regardless their mean, there exists a unique $\bar{x}: F(x)>G(x)$ for all $x<\bar{x}$, and $F(x)<G(x)$ for all $x>\bar{x}$. To prove this single crossing property, denote with $f, g$ the densities of distributions $F, G$. Because $f, g$ are symmetric around their respective means, and $\sigma_{F}>\sigma_{G}$, the two densities intersect at points $x_{1}, x_{2}$ with $f(x)>g(x)$ if $x<x_{1}$ or $x<x_{2}$, and $f(x)<g(x)$ for $x_{1}<x<x_{2}$. But then $F(x)>G(x)$ for all $x<x_{1}$ and $1-F(x)>1-G(x)$, or $F(x)<G(x)$ for $x>x_{2}$. Hence any intersection between $F$ and $G$ must occur between $x_{1}$ and $x_{2}$, but in this range $f(x)>g(x)$, that is, $F(x)$ has derivative greater than the derivative of $G(x)$, therefore there can be only one intersection.
    ${ }^{2}$ Case (i) holds whenever $\bar{q}>\mu$, that is whenever employers without signals would place all workers in the simple job, hence a more precise signal implies placing more workers in the complex job.

[^2]:    ${ }^{3}$ We do not model the change in CEO gender at this stage; in the data, female CEOs, and female management in general is generally scarce. We are only interested in comparing the wage distribution as the gender of the top management changes.

[^3]:    ${ }^{4}$ The quartiles were computed on a yearly basis. Therefore, because the composition of the firms' sample can change from year to year due to some firms exiting and new firms joining the sample, it is possible that a given firm belongs to a different quartile in different years.
    ${ }^{5}$ Firms with less than three workers in a given firm-year were dropped from the sample; we also excluded workers who experienced multiple transitions in the sample period, and workers with gaps in the data between the old job and the new one.

[^4]:    20 industry dummies, 4 firm-size dummies, year dummies, industry-specific trends, and 234 firm fixed effects.

