Online Appendix

for

Female Leadership and Gender Equity: Evidence from Plant Closure

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In this appendix, we provide additional robustness checks to supplement the evidence in the published version of the paper. We begin by providing full versions of all the tables described in Section 4.2.3 of the text. We then provide a more comprehensive discussion of the potential selection of women into female-led firms to accompany the discussion in Section 4.1 of the text. Below we provide a description of each included table.

First, in Table OA.1, we provide evidence to supplement our key result: women achieve greater pay equality to men in firms with female leadership. In these regressions, we compare the wage changes of men and women displaced from the same closing plant who move to the same new firm within three quarters of displacement. That is, all regressions contain fixed effects for closing plant, hiring firm pairs. In this way, we minimize the effect of differences in endogenous job choices by men and women on our estimates. We test whether time, industry, or regional trends may be responsible for the smaller gap in the wage changes of men and women when they move (together) to a firm with female leadership. In Columns 1 to 4, we use the presence of a majority of women among the hiring firm's top 5 earners to measure female leadership. We estimate a regression specification that corresponds to Column 4 of Table 6 in the main text. In Column 1, we interact year dummies with the indicator variable for the worker's gender, allowing for a time trend in the gap between the wage changes of men and women. In Column 2, we include the triple interaction of year dummies, industry dummies (2-digit SICs), and the

gender indicator, allowing for different time trends in the gender gap in different industries. In Column 3, we include the triple interaction of year dummies, dummies for the state in which the closing plant operated, and the gender indicator, allowing for different time trends in the gender gap depending on the local labor market. And, in Column 4, we allow for separate time, industry, and regional trends by including separate interactions of the gender indicator with year, industry, and state dummies, respectively. In all cases, we find little impact on the coefficient of interest: displaced women who move to a new firm with a majority of women in leadership positions achieve greater wage parity with men who make the same job change. In Columns 5 – 8, we repeat the same four specifications, but using the presence of a female CEO (or, top earner) in the hiring firm as the measure of female leadership. These regressions correspond to the specification in Column 1 of Table 8 in the main text. The conclusion is unchanged. Thus, we find that secular trends in gender pay disparity and the prevalence of female leadership – in time, by industry, or by region – cannot explain the link between female leadership and greater pay equity.

Next, we allow for a difference in the effect of female leadership on the relative wage changes of men and women displaced by plant closures if we observe female leadership in the hiring firm after a spell of male leadership (Table OA.2). In Column 1, we define an indicator variable *After* that takes the value 1 for years in which the majority of the top 5 earners in a hiring firm are female and we observe an earlier spell of sample-years in the same hiring firm in which the majority of the top 5 earners in the firm were male. The regression specification corresponds to Column 5 of Table 6, including fixed effects for closing plants and hiring SEINs. We find no evidence of a significant difference in the effect of female leadership on the relative wage changes of displaced men and women in firms in which female leadership follows male

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leadership in the sample. In Column 2, we repeat the exercise, but using the presence of a female CEO to measure female leadership (as in Column 2 of Table 8 in the main text). The conclusion is the same. Thus, we do not find any evidence that female leadership has a greater effect on the relative wage changes of men and women when women succeed men in positions of power.

Next, we investigate the trends in wages within the hiring firms themselves. Instead of focusing on workers displaced from closing plants, we analyze a sample of existing workers in the firms that hire workers displaced from our sample of closing plants. To keep the sample size manageable, we require that (1) the firm hired both male and female displaced workers in our main sample (so that it contributes to the identification of the gender effect when we include hiring firm fixed effects) or (2) the firm has spells of both male and female leadership during our sample period (so that it contributes to the identification of the leadership effect). First, we ask whether there are different trends in the relative wages of men and women in the hiring firms around the time that the firm hires workers displaced from our sample of closing plants depending on whether the firm is led by men or women. In Columns 1 and 2 of Table OA.3, we use a majority of women among the firm's top 5 earners as the measure of female leadership. In Column 1, we look at changes in annual wages preceding the quarter in which the firm hires displaced workers. The sample consists of 5,798,853 workers. The dependent variable measures the difference in the natural logarithms of the annual wage from quarters *t-5* to *t-2* and *t-9* to *t-6*. (In an abuse of notation, we "annualize" this in the column header, referring to this as the change in wage from year *t-2* to *t-1*.) We use the same control variables from Table 6 of the main text and include both firm and year fixed effects. We do not find that the trend in worker wages by gender differs in firms with female or male leadership (the coefficient estimate on the interaction of *% Female Leaders > 50* and *Female* is small and statistically insignificant). In Column 2, we

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look at the difference in the wage changes of men and women already employed by the hiring firm around the time the firm hires workers displaced from closing plants. Here, the wage changes are contemporaneous with the wage changes measured in Table 6 of the main text for the displaced workers. Yet, we do not find any evidence that men and women in the hiring firm experience different wage changes depending on the gender of the firm's leadership. In Columns 3 and 4, we repeat the exercise using the presence of a female CEO as our measure of female leadership, with similar results. We do see some evidence that women in hiring firms do relatively worse than men in firms with female leadership over the window preceding the hiring of displaced workers, but the effect is small in magnitude. There is no evidence of an effect contemporaneous with the hiring of displaced workers. Overall, this evidence suggests that there are no contaminating trends occurring within the firms that hire workers displaced from our sample of closing plants. Thus, we can interpret the differences in wage changes experienced by the newly hired displaced workers as a "shock" that reveals the preferences of the hiring firm's management.

In Table OA.4, we analyze wage changes among existing workers in the subsample of hiring firms that experience a change in the gender composition of the leadership team during our sample period. Here, we measure changes in the wages of the firm's existing workers around the time of the leadership change. This in general will not coincide with the time at which the firm hired workers displaced from our sample of closing plants. The motivation for this analysis is to test whether changes in the gender composition of leadership are a symptom of broader changes in firm culture (e.g., a change towards a more female-friendly culture following a discrimination lawsuit). If so, the effect we measure of female leadership on relative wages might reflect more general differences (or changes) in firm cultures, but not necessarily the

active policies, preferences, or "style" of the leader per se. Mirroring Table OA.3, we look at wage changes both prior to and contemporaneously with the change in the leadership team. We use the presence of a majority of women among the top 5 earners as the measure of female leadership.[1] For firms in which the leadership changes from male to female, we do not see any upward pre-trend in the wages of women relative to men: the coefficient estimate on Δ*Male-to-Female* * *Female* is small and statistically insignificant (Column 1). We do find a statistically significant, though economically modest, general increase in the relative wages of women prior to leadership changes (coefficient estimate on *Female*). But, this applies in all cases and not just when the change is from male to female leadership. In Column 2, we look at wage changes at the time of the leadership change. We again find no evidence that women in the firm achieve relative gains contemporaneously with the promotion of the new female leaders. Thus, the data do not support the hypothesis that the promotion of women (on average) is driven by general moves toward more female-friendly cultures in the firm. Interestingly, we do find evidence that changes to female leadership are associated with across the board increases in pay (coefficient estimate on Δ*Male-to-Female*). This is consistent with moves to female leadership being associated with changes to cultures that are generally more labor-friendly.

In Table OA.5, we test whether the effect of female leadership on the gap in wage changes among newly hired displaced men and women depends on how long the leadership team has been in place. If the effect of female leadership is a true "style" effect, we might expect it to be relatively stable over the leaders' tenure. If instead both female leadership and the smaller pay gaps between newly hired men and women are symptoms of broader changes in culture, we

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[1] There are practical issues that make it difficult to construct a true time series of the identity of the firms' top earners over time, since we must observe the entire firm to identify the "CEO" and coverage of the firm within the LEHD data universe varies over time. Because of the high potential for measurement error, we do not construct a parallel test when the firm changes from a male to a female CEO (or vice versa). Recall that we measure the gender composition of the leadership team at the SEIN, or firm-unit, level, which side-steps many of these difficulties.

might expect the relation to be concentrated in the early years of the leaders' tenure. Our evidence is more supportive of the former hypothesis. We present three regression specifications that mirror Table 6 of the main text: one including fixed effects for closing plants, one including fixed effects for the closing plant – hiring firm pair, and one including separate fixed effects for closing plants and hiring firms. In all cases, we find very little variation in the effect of female leadership on the relative wage changes of newly hired displaced men and women as the tenure of the leadership team increases (coefficient on *% Female Leaders > 50 * Female * Leadership Spell Length* is small and statistically insignificant).

In Table OA.6, we re-estimate the main regressions reported in Table 6 of the main text, but including several additional control variables. The sample is, again, workers displaced from closing plants who find re-employment within the year following closure. The dependent variable is the change in annual wages from the old firm to the new firm and the key independent variables are an indicator for female workers and its interaction with an indicator for at least 50% women among the top 5 earners in the hiring firm. Here, we add two additional worker-level controls that capture worker mobility: (1) an indicator for whether the worker is native to the state in which his/her closing plant is located and (2) an indicator for whether the worker is foreign. We also add controls for the percentage of the workers in the hiring firm who are women and its interaction with the female indicator. The latter two variables allow us to address the concern that times of female leadership coincide with times that the firm generally has a female-dominated workforce. We find little impact of the gender breakdown in the hiring firms' existing workforces on the difference in wages obtained by newly-hired men and women. Not surprisingly, we see that less mobile workers (foreign; native to the state) experience significantly larger wage losses around displacement. However, none of the added variables

have much impact on the quantity of interest: we continue to see a smaller gender gap among workers who move to female-led firms.

Next, we present evidence to address concerns about endogenous worker sorting into plants with male and female leadership. First, in Table OA.7, we provide a more comprehensive version of Table 5 from the main text. We present separate summary statistics for displaced men and women who accept new jobs in male- and female-led firms. In Table 5, we use the presence of a female CEO as the measure of female leadership; here, we also present the same statistics using a majority of women among the hiring firm's top 5 earners as the measure of female leadership. The main comparison of interest is women who move to female-led firms versus women who move to male-led firms. We present cross-sample t-tests for the significance of the differences in sample means of these groups in the fourth and eighth columns of the table. Generally, we find little evidence of systematic differences in the types of women who move to male- and female-led firms. A caveat, of course, is that we can only measure differences in observables and must assume unobservables behave in a similar way. Particularly noteworthy are the differences in mean wages for women who move to male- and female-led firms. For both measures of female leadership, we do find significant differences in the women who move to male- and female-led firms. However, the women who move to female-led firms have significantly smaller ex ante wages. Thus, to the degree that there is endogenous sorting, it appears to strengthen and not diminish our findings: If ex ante wages are a sufficient statistic for unobserved worker quality, the women who move to female-led firms are weaker than the women who move to male-led firms. Yet, they receive more equal pay to men who make the same job change.

In Table OA.8, we present similar evidence in a multivariate regression setting. We consider the sample of workers displaced from closing plants who find new employment within three quarters. In Panel A, the dependent variable is an indicator equal to 1 if the worker found a new job in a firm in which a majority of the top 5 earners are female. In Panel B, the dependent variable is an indicator equal to 1 if the worker found a new job in a firm with a female CEO. We include the control variables from Table 6 of the main text in Panel A and Table 8 of the main text in Panel B. We also interact each demographic control with the indicator variable for worker gender. Thus, the interactions allow us to test whether the particular characteristic is different for women who move to a firm with female leadership compared to women who move to a firm with male leadership, controlling for differences in demographics. In each specification, we include closing plant fixed effects. We also include specifications that control for hiring industry and hiring firm effects. Two basic patterns are noteworthy. First, as in Table OA.6, we find that women who move to female-led firms have slightly lower ex ante wages (inconsistent with an argument that female-led firms pay women better because they attract higher quality women). Second, we find that including fixed effects for hiring firms captures nearly all of the significant differences between women who move to male- and female-led firms. Thus, our specifications with hiring firm fixed effects throughout the analysis should be relatively immune to sorting concerns.

Finally, in Table OA.9, we present a more comprehensive version of Table 10 from the main text. The table provides evidence of a "quantity effect." That is, not only do firms with female leadership pay women relatively better, they also appear to attract a larger quantity of displaced female workers. In Table 10, we present the results using the presence of a female CEO as the measure of female leadership (i.e., the dependent variable in the linear probability

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model is an indicator equal to 1 if the hiring firm has a female CEO). Here, Panel B exactly replicates these results. In Panel A, we present the corresponding regressions using the presence of a majority of women among the hiring firm's top 5 earners as the measure of female leadership. The results are similar: we find strong and significant estimates for the coefficient on the indicator for female workers. Together with our main result that wages are relatively better when women move to female-led firms, these results support a "demand-side" interpretation of our results. Female-led firms have higher demand for female workers, causing both an increase in quantity and price. If instead the results were driven by an extra supply of female workers available to such firms, we would expect the price and quantity effects to have opposite signs.

Table OA.1

Trends in the Gender Wage Gap

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The dependent variable is the difference in the natural logarithms of the pre- and post- plant closure wage. The pre-closure wage is the annual wage two quarters prior to plant closure and the post-closure wage is the annual wage four quarters following the plant closure. The omitted race category is "White". Age is worker age. Wage is the pre-closure annual wage. Tenure is measured as the number of quarters that a worker has spent in the firm. Manager is defined as the highest paid employee in the plant. % Female Leaders is the percentage of females among the top-five earners in the worker's post-closure employer (SEIN). All worker-level variables are measured two quarters prior to plant closure. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	OLS	OLS	OLS	OLS	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Race = Black	-0.032 ***	-0.033 ***	-0.033 ***	-0.033 ***	-0.029 ***	-0.030 ***	-0.030 ***	-0.030 ***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Race = Asian	-0.016 ***	-0.016 ***	-0.017 ***	-0.016 ***	-0.011	-0.010	-0.011 *	-0.010
	(0.005)	(0.005)	(0.005)	(0.005)	(0.007)	(0.006)	(0.007)	(0.006)
Race = Hispanic	-0.029 ***	-0.029 ***	-0.029 ***	-0.029 ***	-0.026 ***	-0.026 ***	-0.026 ***	-0.026 ***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Race = Others Minorities	-0.013 ***	-0.014 ***	-0.013 ***	-0.013 ***	-0.010 ***	-0.011 ***	-0.011 ***	-0.011 ***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Ln(Age)	-0.069 ***	-0.067 ***	-0.068 ***	-0.068 ***	-0.072 ***	-0.071 ***	-0.071 ***	-0.071 ***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Ln(Wage)	-0.128 ***	-0.130 ***	-0.129 ***	-0.129 ***	-0.122 ***	-0.124 ***	-0.123 ***	-0.124 ***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.008)	(0.008)	(0.008)	(0.008)
Manager	0.036 ***	0.037 ***	0.036 ***	0.036 ***	0.023 *	0.025 **	0.023 *	0.023 *
	(0.010)	(0.009)	(0.010)	(0.010)	(0.012)	(0.012)	(0.012)	(0.012)
Ln(Tenure)	-0.014 ***	-0.013 ***	-0.014 ***	-0.013 ***	-0.014 ***	-0.013 ***	-0.014 ***	-0.013 ***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Female	-0.046 ***	-0.037 ***	-0.029 ***	-0.045 ***	-0.033 ***	-0.055 ***	-0.025 ***	-0.038 ***
	(0.008)	(0.013)	(0.005)	(0.009)	(0.008)	(0.019)	(0.004)	(0.011)
(% Female Leaders > 50)*(Female)	0.017 ***	0.018 ***	0.015 **	0.014 **				
	(0.006)	(0.007)	(0.006)	(0.007)				
(Female CEO)*(Female)					0.021 ***	0.014 *	0.018 **	0.017 **
					(0.008)	(0.008)	(0.008)	(0.007)
Plant - New SEIN Pair Fixed Effects	yes	yes	yes	yes	yes	yes	yes	yes
Year * Female Fixed Effects	yes	no	no	yes	yes	no	no	yes
Industry * Female Fixed Effects	no	no	no	yes	no	no	no	yes
State * Female Fixed Effects	no	no	no	yes	no	no	no	yes
Year * Industry * Female Fixed Effects	no	yes	no	no	no	yes	no	no
Year * State * Female Fixed Effects	no	no	yes	no	no	no	yes	no
Adjusted R^2	0.064	0.069	0.066	0.066	0.060	0.066	0.062	0.062
N	256,881	256,881	256,881	256,881	160,642	160,642	160,642	160,642

Table OA.2
Female Leadership After Male Leadership Spell

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The dependent variable is the difference in the natural logarithms of the pre- and post- plant closure wage. The pre-closure wage is the annual wage two quarters prior to plant closure and the post-closure wage is the annual wage four quarters following the plant closure. The omitted race category is "White". Age is worker age. Wage is the pre-closure annual wage. Tenure is measured as the number of quarters that a worker has spent in the firm. Manager is defined as the highest paid employee in the plant. % Female Leaders is the percentage of females among the top-five earners in the worker's post-closure employer (SEIN). Female CEO is an indicator equal to 1 if the highest earner in the post-closure employer (firm) is female. After is an indicator equal to 1 if the spell of female leadership comes after a spell of male leadership in the hiring SEIN or firm within our sample. All worker-level variables are measured two quarters prior to plant closure. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	OLS	OLS
	(1)	(2)
Race = Black	-0.037 ***	-0.032 ***
	(0.005)	(0.007)
Race = Asian	-0.015 ***	-0.011
	(0.005)	(0.008)
Race = Hispanic	-0.031 ***	-0.026 ***
	(0.004)	(0.006)
Race = Others Minorities	-0.013 ***	-0.011 ***
	(0.003)	(0.004)
Ln(Age)	-0.068 ***	-0.073 ***
	(0.004)	(0.007)
Ln(Wage)	-0.139 ***	-0.127 ***
	(0.006)	(0.009)
Manager	0.042 ***	0.028 **
	(0.011)	(0.014)
Ln(Tenure)	-0.014 ***	-0.014 ***
	(0.002)	(0.002)
Female	-0.045 ***	-0.042 ***
	(0.003)	(0.004)
After	-0.015	0.009
	(0.032)	(0.047)
(% Female Leaders > 50)	-0.007	
	(0.021)	
(% Female Leaders > 50)*(Female)	0.023 ***	
	(0.007)	
(% Female Leaders > 50)*(Female)*(After)	-0.016	
	(0.026)	
Female CEO		-0.034
		(0.033)
(Female CEO)*(Female)		0.022 **
		(0.009)
(Female CEO)*(Female)*(After)		-0.001
		(0.033)
Plant Fixed Effects	yes	yes
New SEIN Fixed Effects	yes	yes
Adjusted R^2	0.616	0.665
N	256,881	160,642

Table OA.3

Wage Changes for Existing Workers in Firms that Hire Displaced Workers

The sample consists of the existing workers in SEINs that hire workers displaced from closing plants (the displaced workers are excluded). t is the quarter in which the plant from which the firm hired displaced workers closed. The dependent variable is the difference in the natural logarithms of annual wages, measured for the interval indicated in the column title. Year $t\text{-}2$ is quarters $t\text{-}9$ to $t\text{-}6$; year $t\text{-}1$ is quarters $t\text{-}5$ to $t\text{-}2$; year $t\text{+}1$ is quarters t to $t\text{+}4$. Race Controls are indicators for the worker's race (Black, Asian, Hispanic, and other minorities). The omitted race category is "White". Age is worker age. $\text{Wage}_{t\text{-}2}$ is the annual wage in quarter $t\text{-}6$; $\text{Wage}_{t\text{-}1}$ is the annual wage in quarter t-2. Tenure is measured as the number of quarters that a worker has spent in the firm. Manager is defined as the highest paid employee in the plant. % Female Leaders is the percentage of females among the top-five earners in the hiring firm. Female CEO is an indicator equal to 1 if the highest earner in the hiring firm is female. All worker-level variables are measured two quarters prior to plant closure, except where explicitly noted otherwise. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	$\Delta\text{Wage}_{t\text{-}2,t\text{-}1}$	$\Delta\text{Wage}_{t\text{-}1,t\text{+}1}$	$\Delta\text{Wage}_{t\text{-}2,t\text{-}1}$	$\Delta\text{Wage}_{t\text{-}1,t\text{+}1}$
	(1)	(2)	(3)	(4)
Ln(Age)	0.041 ***	-0.037 ***	0.027 ***	-0.025 ***
	(0.009)	(0.005)	(0.003)	(0.005)
Manager	-0.099 **	0.067 ***	-0.089 ***	0.039 **
	(0.044)	(0.025)	(0.030)	(0.017)
Ln(Tenure)	0.018 ***	-0.009 ***	0.02 ***	-0.011 ***
	(0.004)	(0.003)	(0.004)	(0.002)
Ln($\text{Wage}_{t\text{-}2}$)	0.116 ***		0.101 ***	
	(0.017)		(0.008)	
Ln($\text{Wage}_{t\text{-}1}$)		-0.036 ***		-0.029 ***
		(0.008)		(0.004)
Female	0.015 ***	-0.008 ***	0.009 ***	-0.006 **
	(0.004)	(0.003)	(0.003)	(0.002)
(% Female Leaders > 50)	-0.004	-0.002		
	(0.005)	(0.005)		
(% Female Leaders > 50)*(Female)	-0.004	0.003		
	(0.004)	(0.003)		
Female CEO			0.011 *	-0.018 ***
			(0.006)	(0.004)
(Female CEO)*(Female)			-0.005 **	0.001
			(0.002)	(0.003)
Race Controls	yes	yes	yes	yes
SEIN Fixed Effects	yes	yes	yes	yes
Time Fixed Effects	yes	yes	yes	yes
Adjusted R^2	0.129	0.033	0.125	0.041
N	5,798,853	5,798,853	2,312,516	2,312,516

Table OA.4

Wage Changes for Workers Around Changes in the Gender Composition of Firm Leadership

The sample consists of the existing workers in SEINs that hire workers displaced from closing plants (the displaced workers are excluded) and that have a change in the gender composition of the leadership team during the sample period. t is the quarter in which the gender composition of the majority of the leadership team changed either from male to female or female to male. The dependent variable is the difference in the natural logarithms of the annual wages, measured over the interval indicated in the column title. Year $t-2$ is quarters $t-9$ to $t-6$; year $t-1$ is quarters $t-5$ to $t-2$; year $t+1$ is quarters t to $t+4$. Race Controls are indicators for the worker's race (Black, Asian, Hispanic, and other minorities). The omitted race category is "White". Age is worker age. Tenure is measured as the number of quarters that a worker has spent in the firm. $Wage_{t-2}$ is the annual wage in quarter $t-6$; $Wage_{t-1}$ is the annual wage in quarter $t-2$. Manager is defined as the highest paid employee in the plant. Δ(Male-to-Female) is an indicator variable that indicates that the majority gender of the leadership team changed from male to female. All worker-level variables are measured two quarters prior to plant closure, except where explicitly noted otherwise. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	$\Delta Wage_{t-2,t-1}$	$\Delta Wage_{t-1,t+1}$
	(1)	(2)
Ln(Age)	0.024 ***	-0.024 ***
	(0.007)	(0.006)
Manager	-0.224 ***	0.058
	(0.027)	(0.039)
Ln(Tenure)	0.017 ***	-0.009 ***
	(0.004)	(0.003)
Ln($Wage_{t-2}$)	0.135 ***	
	(0.005)	
Ln($Wage_{t-1}$)		-0.034 ***
		(0.007)
Female	0.006 **	-0.002
	(0.003)	(0.004)
Δ(Male-to-Female)	-0.001	0.032 ***
	(0.007)	(0.009)
Δ(Male-to-Female)*(Female)	0.000	-0.001
	(0.005)	(0.003)
Race Controls	yes	yes
SEIN Fixed Effects	yes	yes
Time Fixed Effects	yes	yes
Adjusted R^2	0.155	0.044
N	136,414	136,414

Table OA.5
Length of Female Leadership Spell

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The dependent variable is the difference in the natural logarithms of the pre- and post- plant closure wage. The pre-closure wage is the annual wage two quarters prior to plant closure and the post-closure wage is the annual wage four quarters following the plant closure. The omitted race category is "White". Age is worker age. Wage is the pre-closure annual wage. Tenure is measured as the number of quarters that a worker has spent in the firm. Manager is defined as the highest paid employee in the plant. % Female Leaders is the percentage of females among the top-five earners in the worker's post-closure employer (SEIN). Leadership Spell Length is the number of quarters the majority gender of the leadership team in the hiring SEIN has been unchanged at the time the firm hires displaced sample workers. All worker-level variables are measured two quarters prior to plant closure. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	OLS	OLS	OLS
	(1)	(2)	(3)
Race = Black	-0.044 ***	-0.032 ***	-0.037 ***
	(0.004)	(0.004)	(0.005)
Race = Asian	-0.005	-0.016 ***	-0.015 ***
	(0.004)	(0.005)	(0.005)
Race = Hispanic	-0.035 ***	-0.029 ***	-0.031 ***
	(0.003)	(0.004)	(0.004)
Race = Others Minorities	-0.016 ***	-0.013 ***	-0.013 ***
	(0.003)	(0.003)	(0.003)
Ln(Age)	-0.074 ***	-0.069 ***	-0.068 ***
	(0.004)	(0.004)	(0.005)
Ln(Wage)	-0.144 ***	-0.128 ***	-0.139 ***
	(0.004)	(0.006)	(0.006)
Manager	0.030 ***	0.036 ***	0.042 ***
	(0.008)	(0.010)	(0.011)
Ln(Tenure)	-0.008 ***	-0.014 ***	-0.014 ***
	(0.001)	(0.002)	(0.002)
Female	-0.058 ***	-0.042 ***	-0.047 ***
	(0.003)	(0.003)	(0.003)
(% Female Leaders > 50)	-0.129 ***		-0.008
	(0.009)		(0.020)
(% Female Leaders > 50)*(Female)	0.030 ***	0.013	0.019 *
	(0.009)	(0.010)	(0.011)
Leadership Spell Length	0.036 ***		0.022
	(0.008)		(0.014)
(% Female Leaders > 50)*(Leadership Spell Length)	0.013		-0.036
	(0.014)		(0.027)
(Female)*(Leadership Spell Length)	0.002	0.005	0.007
	(0.005)	(0.005)	(0.006)
(% Female Leaders > 50)*(Female)*(Leadership Spell Length)	0.013	0.005	0.002
	(0.012)	(0.013)	(0.015)
Plant Fixed Effects	yes	no	yes
New SEIN Fixed Effects	no	no	yes
Plant - New SEIN Pair Fixed Efffects	no	yes	no
Adjusted R^2	0.053	0.064	0.616
N	256,881	256,881	256,881

Table OA.6
Additional Controls

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The dependent variable is the difference in the natural logarithms of the pre- and post- plant closure wage. The pre-closure wage is the annual wage two quarters prior to plant closure and the post-closure wage is the annual wage four quarters following the plant closure. The omitted race category is "White". Age is worker age. Wage is the pre-closure annual wage. Tenure is measured as the number of quarters that a worker has spent in the firm. All worker-level variables are measured two quarters prior to plant closure. Manager is defined as the highest paid employee in the plant. % Female Workers is the percentage of female workers among all employees in the worker's post-closure employer (SEIN). % Female Leaders is the percentage of females among the top-five earners in the worker's post-closure employer (SEIN). Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	OLS	OLS
	(1)	(2)
Race = Black	-0.033 ***	-0.037 ***
	(0.004)	(0.005)
Race = Asian	-0.009 **	-0.007
	(0.005)	(0.005)
Race = Hispanic	-0.024 ***	-0.025 ***
	(0.003)	(0.004)
Race = Others Minorities	-0.010 ***	-0.011 ***
	(0.003)	(0.003)
Ln(Age)	-0.069 ***	-0.069 ***
	(0.004)	(0.005)
Ln(Wage)	-0.128 ***	-0.14 ***
	(0.006)	(0.006)
Manager	0.036 ***	0.043 ***
	(0.010)	(0.011)
Ln(Tenure)	-0.014 ***	-0.014 ***
	(0.002)	(0.002)
Native to State	-0.006 ***	-0.007 ***
	(0.002)	(0.002)
Foreign	-0.013 ***	-0.014 ***
	(0.002)	(0.003)
% Female Workers		-0.020
		(0.015)
(% Female Workers)*(Female)	0.012	-0.031
	(0.046)	(0.042)
Female	-0.041 ***	-0.045 ***
	(0.002)	(0.003)
% Female Leaders > 50		-0.021
		(0.015)
(% Female Leaders > 50)*(Female)	0.018 ***	0.022 ***
	(0.006)	(0.007)
Plant Fixed Effects	no	yes
Plant - New SEIN Pair Fixed Effects	yes	no
New SEIN Fixed Effects	no	yes
Adjusted R^2	0.532	0.456
N	255,754	255,754

Table OA.7

Summary Statistics

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The table presents sample means of worker characteristics separately for men and women and for workers moving to female- and male-led firms. ***, **, and * in Columns 3 and 7 indicate significance of the difference in means between men in male- and female-led firms at the 1%, 5%, or 10% levels, respectively. ***, **, and * in Columns 4 and 8 indicate significance of the difference in means between women in male- and female-led firms at the 1%, 5%, or 10% levels, respectively.

	% Female among Top 5 Earners > 50%		% Female among Top 5 Earners ≤ 50%				Female CEO		Male CEO			
	Men (N = 9,905)	Women (N = 21,598)	Men (N = 140,710)		Women (N = 84,668)		Men (N = 8,165)	Women (N = 12,506)	Men (N = 85,224)		Women (N = 54,747)	
Annual Wage	32,348	22,175	34,023		24,113	***	28,638	21,949	32,794	***	23,486	***
Age	38.82	40.13	39.29	*	39.49	***	39.18	40.52	39.68		40.07	
Tenure (in yrs)	2.47	2.51	2.59		2.59		2.36	2.51	2.57		2.65	
Education (in yrs)	13.52	14.02	13.54		13.96		13.37	14.01	13.37	*	14.03	
Race												
White	0.62	0.69	0.67	**	0.69		0.62	0.70	0.66	**	0.70	
Black	0.11	0.13	0.09		0.11	*	0.10	0.12	0.09		0.11	
Asian	0.05	0.04	0.04	*	0.05		0.04	0.05	0.03		0.04	
Hispanic	0.16	0.09	0.15		0.10	*	0.17	0.09	0.15		0.09	
Other	0.07	0.04	0.06		0.05	**	0.07	0.04	0.06		0.05	
Foreign	0.23	0.15	0.21		0.16		0.24	0.15	0.21	*	0.15	
Native to State	0.40	0.46	0.42	**	0.47		0.40	0.46	0.43	**	0.48	

Table OA.8
Quantity Effects and Selection

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The dependent variable in Panel A is an indicator equal to 1 if the hiring SEIN has a majority of women among the top 5 earners and in Panel B is an indicator equal to 1 if the hiring firm has a woman as its top earner (CEO). The omitted race category is "White". Age is worker age. Wage is the pre-closure annual wage. Tenure is measured as the number of quarters that a worker has spent in the firm. Manager is defined as the highest paid employee in the plant. All worker-level variables are measured two quarters prior to plant closure. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	OLS	OLS	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A. % Female Leaders > 50			Panel B. Female CEO		
Race = Black	0.004 *	0.003	0.002 **	0.007 **	0.005 *	-0.001
	(0.002)	(0.002)	(0.001)	(0.003)	(0.003)	(0.001)
Race = Asian	-0.006 *	-0.007 **	-0.002	0.009 *	0.008	0.001 *
	(0.003)	(0.003)	(0.001)	(0.005)	(0.005)	(0.001)
Race = Hispanic	0.000	0.001	0.001	0.003	0.004	0.000
	(0.002)	(0.002)	(0.001)	(0.003)	(0.003)	(0.001)
Race = Others Minorities	0.001	0.001	0.002 **	0.010 ***	0.010 ***	0.001
	(0.002)	(0.002)	(0.001)	(0.003)	(0.003)	(0.001)
Female	0.223 ***	0.171 ***	0.008	0.164 ***	0.113 ***	0.012 *
	(0.033)	(0.030)	(0.009)	(0.040)	(0.037)	(0.010)
(Race = Black)*(Female)	-0.006	-0.007	0.000	-0.013 **	-0.011 **	-0.001
	(0.005)	(0.005)	(0.001)	(0.005)	(0.005)	(0.001)
(Race = Asian)*(Female)	-0.02 ***	-0.017 ***	0.002	-0.013 *	-0.009	0.002
	(0.005)	(0.005)	(0.002)	(0.008)	(0.007)	(0.002)
(Race = Hispanic)*(Female)	-0.011 **	-0.011 ***	0.000	-0.008	-0.009 *	0.002
	(0.004)	(0.004)	(0.001)	(0.005)	(0.005)	(0.002)
(Race = Others Minorities)*(Female)	-0.015 ***	-0.013 ***	-0.003 *	-0.024 ***	-0.022 ***	0.000
	(0.005)	(0.005)	(0.002)	(0.006)	(0.006)	(0.002)
Ln(Age)	0.011 ***	0.007 ***	0.000	0.014 ***	0.012 ***	0.002
	(0.002)	(0.002)	(0.001)	(0.003)	(0.003)	(0.001)
Ln(Age)*(Female)	-0.006	-0.005	0.001	-0.001	0.001	-0.002
	(0.005)	(0.004)	(0.001)	(0.006)	(0.005)	(0.002)
Ln(Wage)	-0.005 ***	-0.006 ***	0.001 *	-0.004 **	-0.005 **	0.000
	(0.002)	(0.002)	(0.000)	(0.002)	(0.002)	(0.001)
Ln(Wage)*(Female)	-0.014 ***	-0.010 ***	-0.001	-0.011 ***	-0.008 **	-0.001
	(0.003)	(0.003)	(0.001)	(0.004)	(0.003)	(0.001)
Manager	0.003	0.001	0.001	-0.008	-0.010 *	0.001
	(0.005)	(0.004)	(0.001)	(0.006)	(0.006)	(0.001)
(Manager)*(Female)	0.038 ***	0.031 **	0.004	-0.012	-0.016	0.005
	(0.014)	(0.014)	(0.004)	(0.018)	(0.017)	(0.004)
Ln(Tenure)	0.002	0.002 *	0.000	0.000	0.001	0.000
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)
Ln(Tenure)*(Female)	-0.008 ***	-0.007 ***	-0.001 **	-0.007 ***	-0.006 ***	0.000
	(0.002)	(0.002)	(0.000)	(0.002)	(0.002)	(0.001)
Plant Fixed Effects	yes	yes	yes	yes	yes	yes
New Industry Fixed Effects	no	yes	no	no	yes	no
New SEIN Fixed Effects	no	no	yes	no	no	yes
Adjusted R²	0.007	0.062	0.967	0.005	0.035	0.979
N	256,881	256,881	256,881	160,642	160,642	160,642

Table OA.9
Quantity Effects

The sample consists of workers displaced from a closing plant who re-enter the workforce within three quarters of the closure. The dependent variable in Panel A is an indicator equal to 1 if the hiring SEIN has a majority of women among the top 5 earners and in Panel B is an indicator equal to 1 if the hiring firm has a woman as its top earner (CEO). The omitted race category is "White". Age is worker age. Wage is the pre-closure annual wage. Tenure is measured as the number of quarters that a worker has spent in the firm. Manager is defined as the highest paid employee in the plant. All worker-level variables are measured two quarters prior to plant closure. Standard errors are clustered by closing plant and are reported in parentheses. *, ** and *** represent significance at the 10%, 5% and 1% level, respectively.

	OLS	OLS	OLS	OLS
	(1)	(2)	(3)	(4)
	Panel A. % Female Leaders > 50		Panel B. Female CEO	
Race = Black	0.001	0.000	0.002	0.000
	(0.002)	(0.002)	(0.003)	(0.003)
Race = Asian	-0.015 ***	-0.015 ***	0.003	0.003
	(0.003)	(0.003)	(0.004)	(0.004)
Race = Hispanic	-0.004 *	-0.003 *	0.000	0.001
	(0.002)	(0.002)	(0.003)	(0.003)
Race = Others Minorities	-0.004 *	-0.003 *	0.002	0.002
	(0.002)	(0.002)	(0.003)	(0.003)
Ln(Age)	0.009 ***	0.005 **	0.014 ***	0.012 ***
	(0.002)	(0.002)	(0.003)	(0.003)
Ln(Wage)	-0.009 ***	-0.01 ***	-0.008 ***	-0.008 ***
	(0.002)	(0.002)	(0.002)	(0.002)
Manager	0.013 ***	0.009 **	-0.009	-0.013 **
	(0.005)	(0.004)	(0.006)	(0.006)
Ln(Tenure)	-0.001	-0.001	-0.002 *	-0.002
	(0.001)	(0.001)	(0.001)	(0.001)
Female	0.043 ***	0.031 ***	0.034 ***	0.024 ***
	(0.002)	(0.002)	(0.003)	(0.002)
Plant Fixed Effects	yes	yes	yes	yes
New Industry Fixed Effects	no	yes	no	yes
New SEIN Fixed Effects	no	no	no	no
Adjusted R^2	0.007	0.062	0.004	0.034
N	256,881	256,881	160,642	160,642