Online Appendix

Gender Gaps across the Spectrum of Development: Local Talent and Firm Productivity

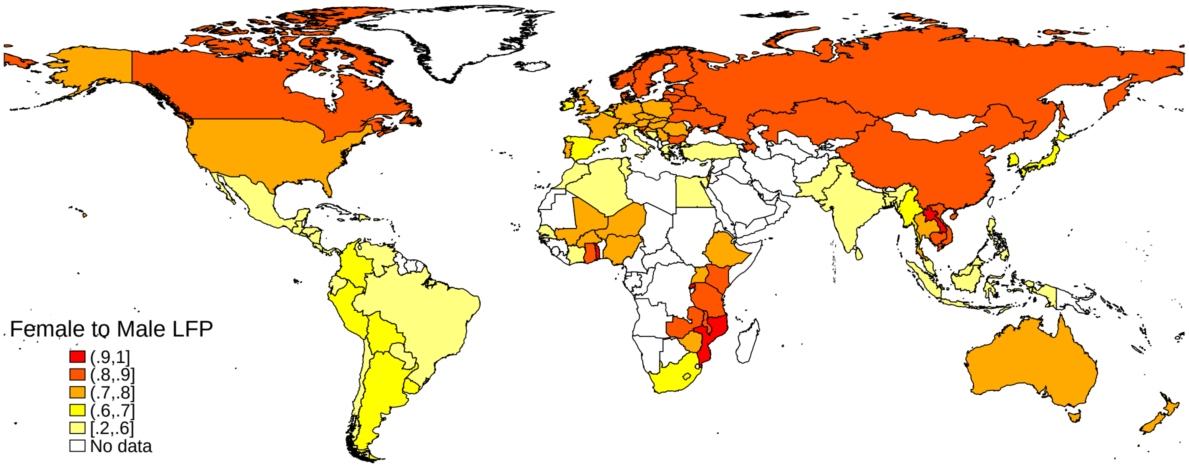
Nava Ashraf* Oriana Bandiera† Virginia Minni‡
Víctor Quintas-Martínez§

*STICERD and Department of Economics, LSE. n.ashraf1@lse.ac.uk
†STICERD and Department of Economics, LSE. o.bandiera@lse.ac.uk
‡University of Chicago, Booth School of Business, CEPR, IZA, and J-PAL and NBER. virginia.minni@chicagobooth.edu
§Amazon. vquintas@amazon.com

Contents

A Appendix figures and tables

Figure A.1: The countries where the MNE operates and female to male LFP

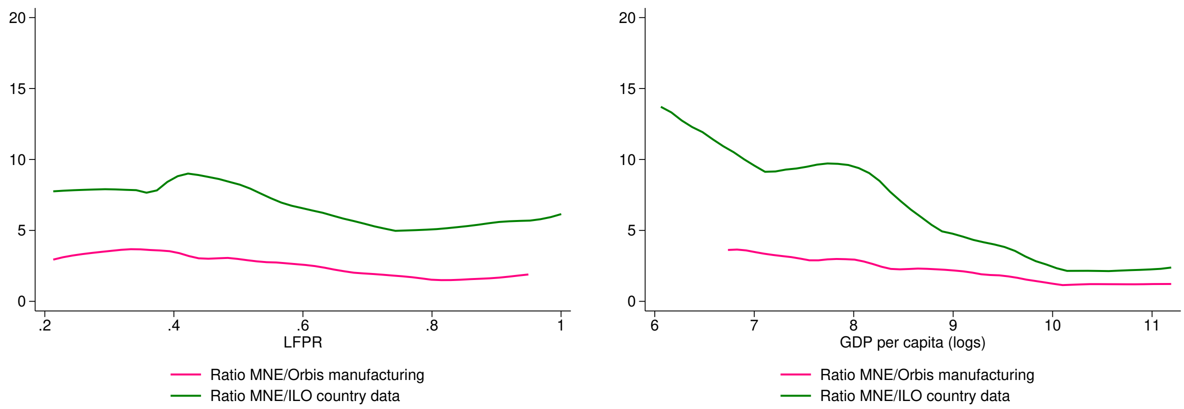


Notes. This figure plots the average labor force participation ratio (LFPR) in each country (averaged across cohorts).

Figure A.2: Average wages in the firm and in the country overall: a) ILO, white collar occupations only; and b) ORBIS, manufacturing sector only

(a) Wage ratios against LFPR

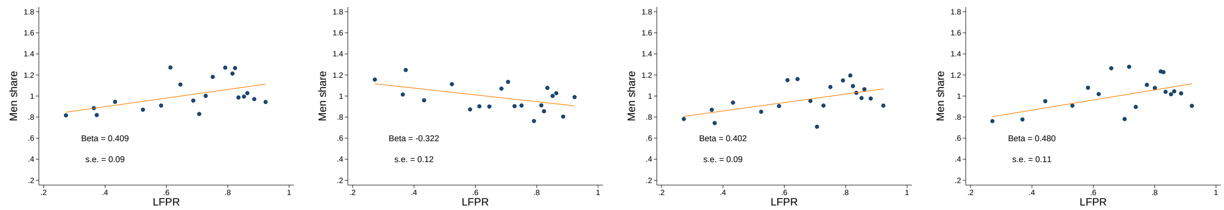
(b) Wage ratios against GDP per capita in logs



Notes. This figure plots the ratio of the average wage in the MNE and in the country overall: a) from the ORBIS database, considering the manufacturing sector only, and b) from the International Labor Organization (ILO), considering white-collar occupations only. Wages are measured in 2017 PPP $. The x-axis is the LFPR (panel a) and the GDP per capita in logs (panel b) in each country.

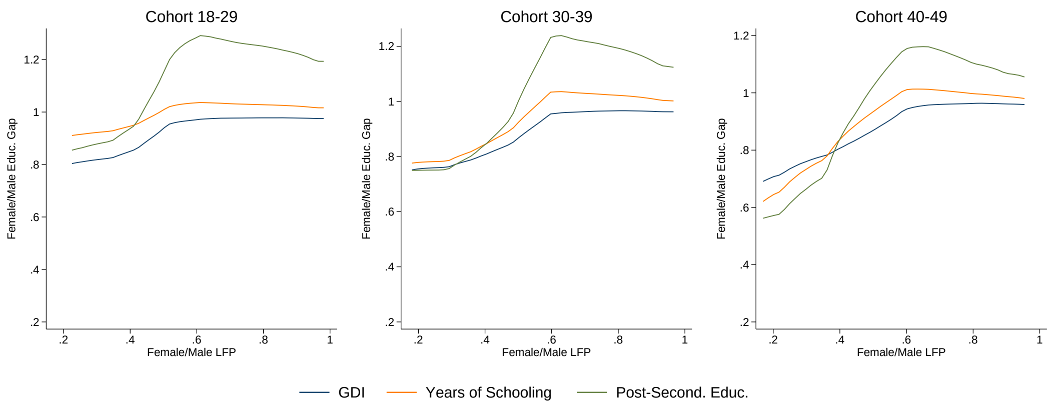
Figure A.3: Gender promotion gap and LFPR

(a) Share men, top decile of wages | (b) Share men, bottom decile of wages | (c) Share men, managerial positions | (d) Share men, high promotion speed



Notes. The figures are binned scatterplots and a linear fit of the share of men with different performance metrics (as a proportion of the male share in the firm) against the LFPR, in each country-cohort cell. Panel (a) looks at the top decile of wages; Panel (b) at the bottom decile; Panel (c) looks at the share of men in managerial positions; and Panel (d) at promotion speed to managerial positions, based on average promotion rates in the firm by labor market experience. In the regressions, we use analytical weights by employee size of each cohort-country cell. The unit of observation is a country-cohort.

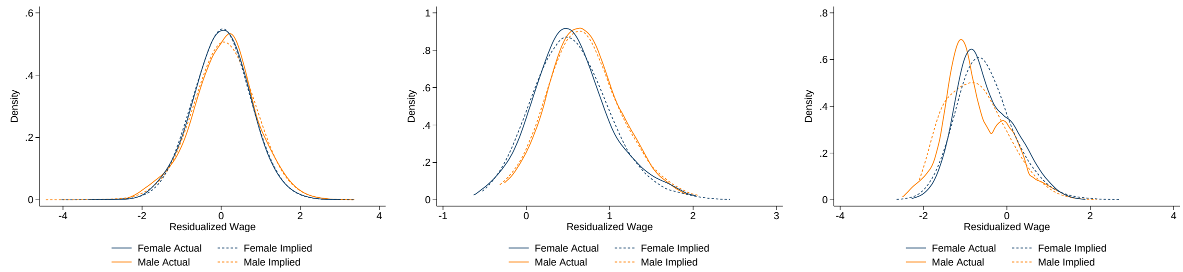
Figure A.4: Gender education gap and LFPR



Notes. The figure plots the gender gap in education against the gender gap in LFP for each country separately by age cohort. We use three distinct education measures: the gender development index (GDI, the ratio of female/male Human Development Index); years of schooling (female to male ratio), and the percentage in post-secondary education (female to male ratio). The GDI data is from the UNDP and the educational attainment data is from the World Bank. The unit of observation in each plot is a country.

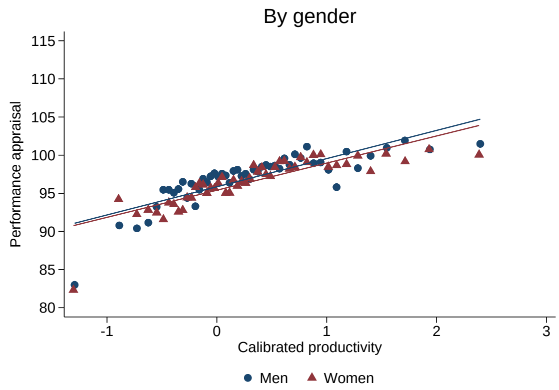
Figure A.5: Goodness of fit: Wage distribution in India and Sweden

(a) Overall (b) Sweden (c) India



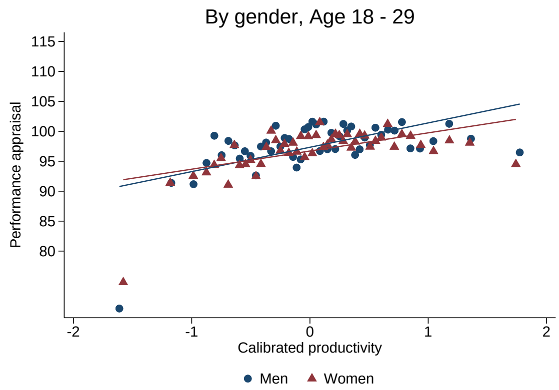
Notes. The figures compare the actual distribution of residualized log wages to the distributions implied by our calibrated model (a) across all countries, (b) in Sweden, and (c) in India. Wages (in logs) are residualized using year and function dummies, tenure, and tenure squared, as detailed in sub-section 4.2.

Figure A.6: Productivity and Performance Appraisals

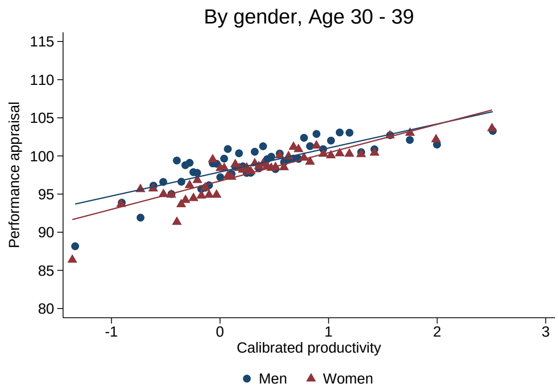


(a) By gender

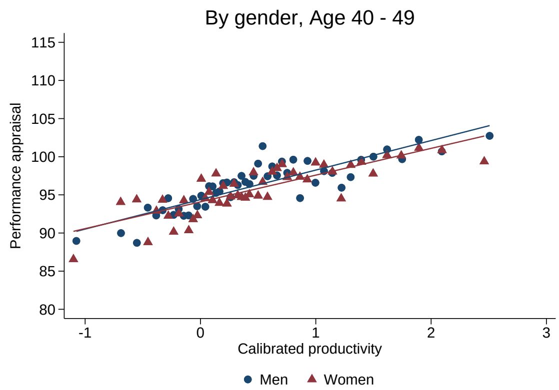
(b) By parental leave



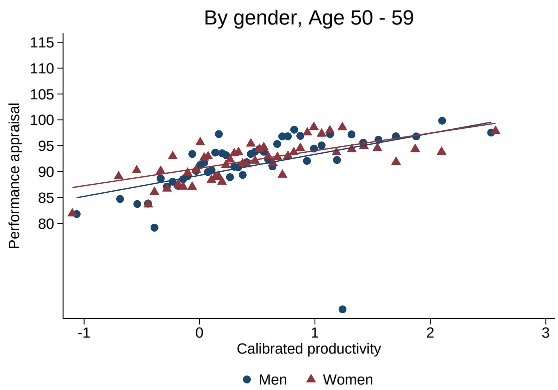
(c) By gender, ages 18–29



(d) By gender, ages 30–39



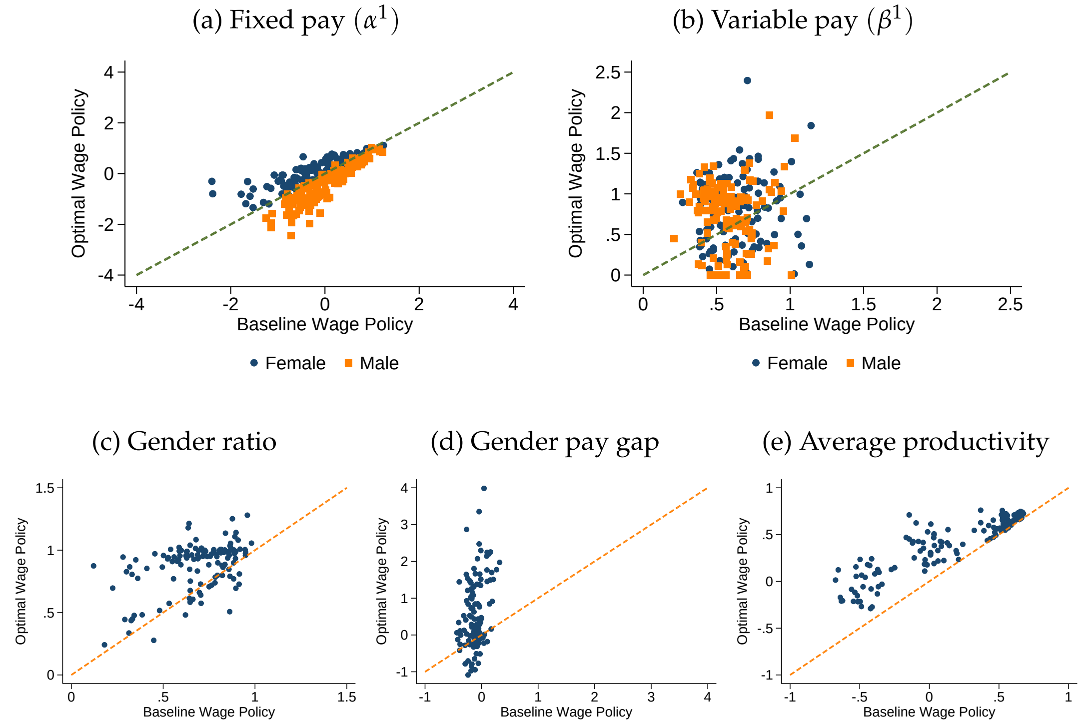
(e) By gender, ages 40–49



(f) By gender, ages 50–59

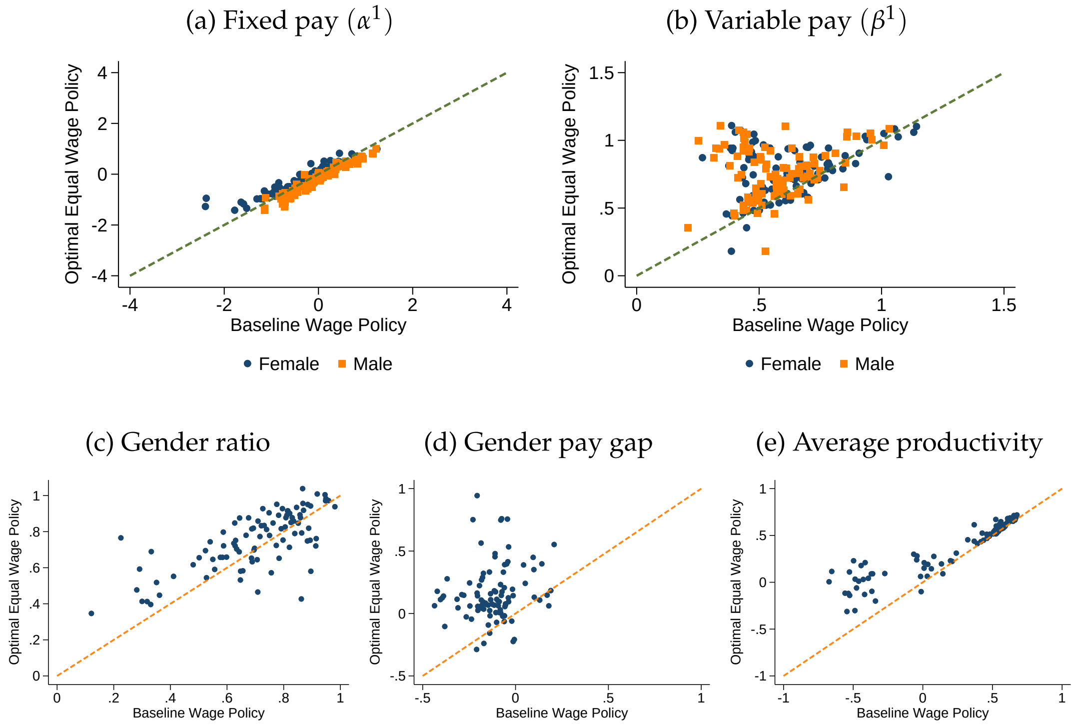
Notes. Figures show binned scatter plots of performance appraisals against calibrated productivity. All specifications include country-cohort, year–month, and function fixed effects. Tenure and tenure squared controls are included.

Figure A.7: Counterfactual I - optimal gender wage policy



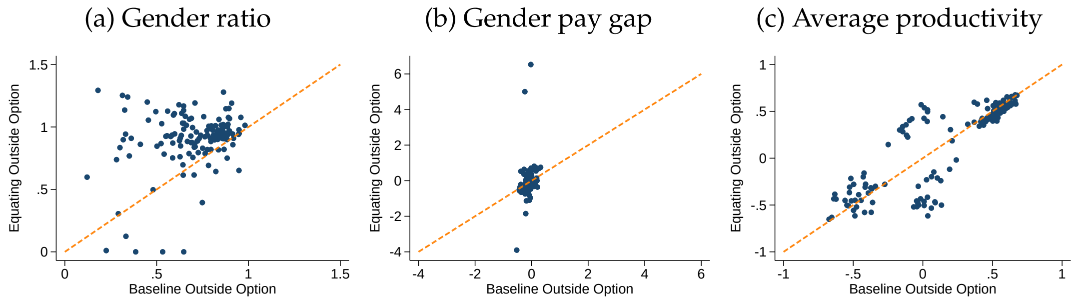
Notes. The figures compare different outcomes (female to male employment ratio, pay gap, and average productivity) and the wage policy parameters (α^1, β^1) at baseline vs. the optimal wage policy (see main text for details). Each dot represents a country-cohort cell and the 45-degree line is included (dashed line).

Figure A.8: Counterfactual II - optimal gender wage policy with equality constraint



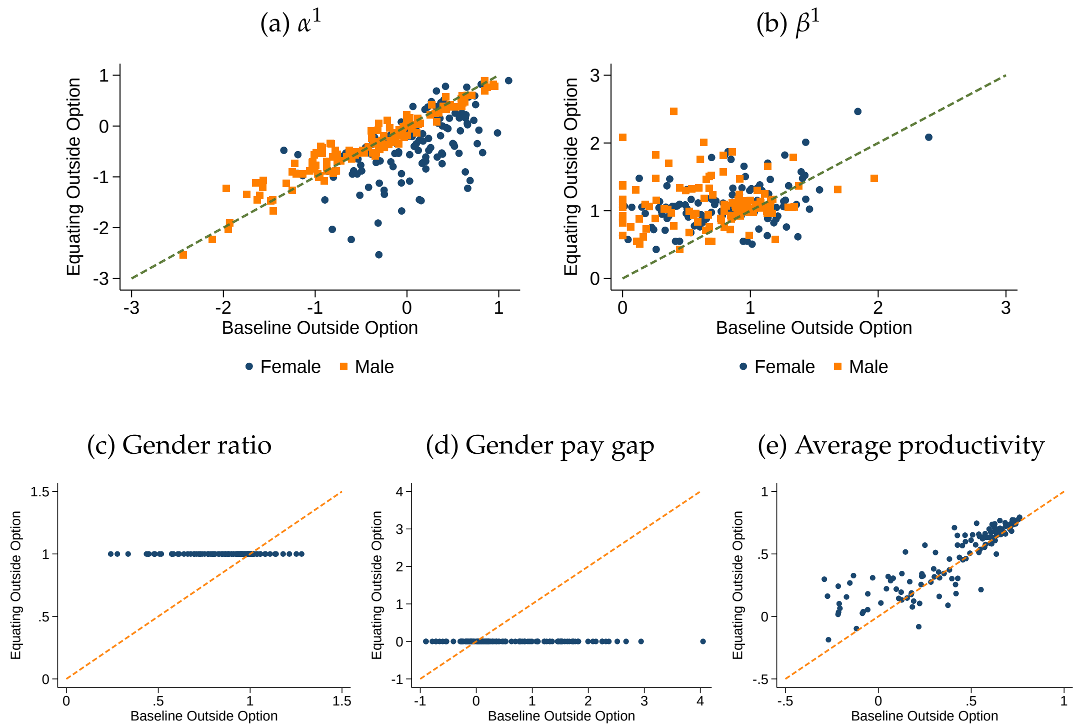
Notes. The figures compare different outcomes (female to male employment ratio, pay gap, and average productivity) and the wage policy parameters (α^1, β^1) at baseline vs. the optimal wage policy with equality constraint (see main text for details). Each dot represents a country-cohort cell and the 45-degree line is included.

Figure A.9: Counterfactual III - gender equality in the labor force (baseline wage policy)



Notes. The figures compare different outcomes (female to male employment ratio, pay gap, and average productivity) under the baseline outside option parameters (α^0, ν^0, ρ) to the counterfactual where these are equalized at the male levels. We keep the wage policy of the firm fixed at the calibrated baseline parameters. Each dot represents a country-cohort cell and the 45-degree line is included.

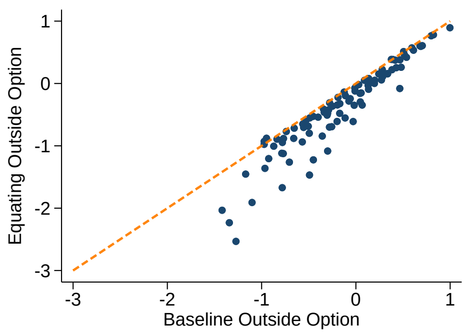
Figure A.10: Counterfactual IV - gender equality in labor force (optimized wage policy)



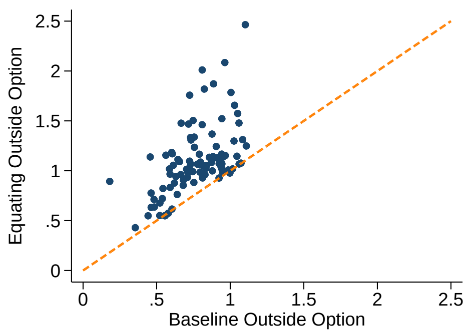
Notes. The figures compare different outcomes (female to male employment ratio, pay gap, and average productivity) and the wage policy parameters (α^1, β^1) under the baseline outside option parameters (α^0, ν^0, ρ) to the counterfactual where these are equalized at the male levels. In either case, we let the firm choose the optimal wage policy, as described in the main text. Each dot represents a country-cohort cell and the 45-degree line is included.

Figure A.11: Counterfactual V - gender equality in labor force (optimized wage policy with equality constraint)

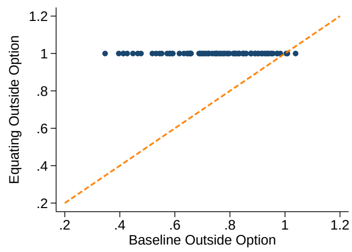
(a) α^1



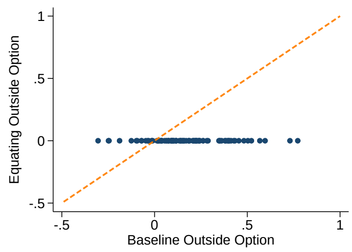
(b) β^1



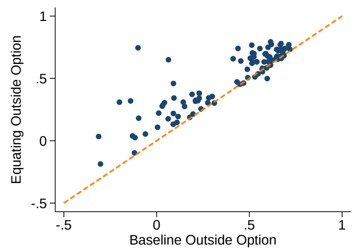
(c) Gender ratio



(d) Gender pay gap

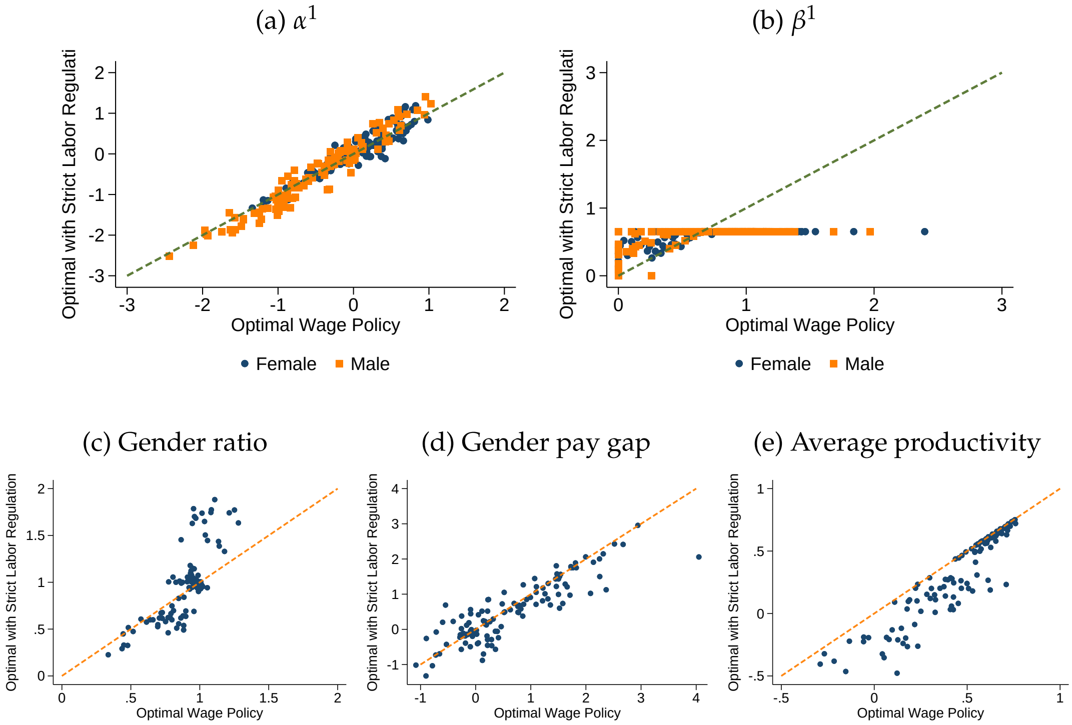


(e) Average productivity



Notes. The figures compare different outcomes (female to male employment ratio, pay gap, and average productivity) and the wage policy parameters (α^1, β^1) under the baseline norm parameters (α^0, ν^0, ρ) to the counterfactual where these are equalized at the male levels. In either case, we let the firm choose the optimal wage policy, subject to an equality constraint, as described in the main text. Each dot represents a country-cohort cell and the 45-degree line is included.

Figure A.12: Counterfactual VI - strict labor regulation (optimized wage policy)



Notes. The figures compare different outcomes (female to male employment ratio, pay gap, and average productivity) and the wage policy parameters (α^1, β^1), estimated under the optimal wage policy, to a scenario where we impose an additional cap on returns to ability β_1 (see main text for details). Each dot represents a country-cohort cell and the 45-degree line is included.

Table A.1
Gender pay gap and LFPR — LFP for population with tertiary education

	Pay + Bonus (logs)				
	(1)	(2)	(3)	(4)	(5)
Female	0.427	0.269	0.165	0.303	0.381
	(0.173)	(0.082)	(0.152)	(0.079)	(0.073)
LFPR, advanced education	1.776	1.692	-0.173	1.684	0.073
	(0.188)	(0.113)	(0.205)	(0.116)	(0.273)
Female $\times$ LFPR, advanced education	-0.496	-0.375	-0.501	-0.401	-0.522
	(0.198)	(0.100)	(0.133)	(0.096)	(0.088)
GDP per capita (logs)			0.366		
			(0.031)		
Female $\times$ GDP per capita (logs)			0.021		
			(0.016)		
Controls	No	Yes	Yes	Yes	Yes
Cohort FE	No	No	No	Yes	Yes
Country FE	No	No	No	No	No
N	251339	251339	250439	251339	251339
R-squared	0.155	0.315	0.477	0.332	0.570

Notes. An observation is a worker-year. The LFPR is computed using the LFP for individuals with advanced education (short-cycle tertiary education or college degree and/or above). Controls include: tenure, tenure squared, year FE and function FE. Standard errors clustered at the country-cohort level.

Table A.2
Gender pay gap and LFPR — by region and income group

	All	Region FE	Lower inc.	Higher inc.
	(1)	(2)	(3)	(4)
Female	0.256	0.208	0.265	-0.032
	(0.096)	(0.070)	(0.050)	(0.111)
LFPR	1.641	0.698	0.547	1.384
	(0.212)	(0.186)	(0.134)	(0.338)
Female $\times$ LFPR	-0.471	-0.424	-0.408	-0.129
	(0.135)	(0.100)	(0.068)	(0.156)
Controls	Yes	Yes	Yes	Yes
N	303759	303759	71658	232101
R-squared	0.285	0.387	0.218	0.239

Notes. An observation is a worker-year. Controls include: tenure, tenure squared, year FE and function FE. Standard errors clustered at the country-cohort level. Income group and geographical region are obtained from the World Bank.

Table A.3
Gender pay gap and LFPR — PPP conversion

	Pay + Bonus (logs), PPP 2017 USD				
	(1)	(2)	(3)	(4)	(5)
Female	0.306	0.181	0.314	0.183	0.198
	(0.129)	(0.082)	(0.151)	(0.083)	(0.077)
LFPR	0.300	0.281	0.183	0.291	0.129
	(0.199)	(0.138)	(0.191)	(0.132)	(0.240)
Female $\times$ LFPR	-0.451	-0.358	-0.268	-0.350	-0.380
	(0.168)	(0.107)	(0.086)	(0.109)	(0.102)
GDP per capita (logs)			0.026		
			(0.024)		
Female $\times$ GDP per capita (logs)			-0.022		
			(0.016)		
Controls	No	Yes	Yes	Yes	Yes
Cohort FE	No	No	No	Yes	Yes
Country FE	No	No	No	No	No
N	302792	302792	301887	302792	302792
R-squared	0.011	0.127	0.128	0.135	0.468

Notes. An observation is a worker-year. Controls include: tenure, tenure squared, year FE and function FE. Standard errors clustered at the country-cohort level. Wages are measured in PPP 2017 USD. Purchasing power parity (PPP) exchange rates are taken from the ICP (World Bank).

Table A.4
Gender pay gap and LFPR — Team Gender Composition

	High F share team = 30%			High F share team = 50%		
	Pay	Pay Growth	Major Promotion	Pay	Pay Growth	Major Promotion
Female	0.372	0.143	0.133	0.211	0.200	0.099
	(0.154)	(0.078)	(0.054)	(0.116)	(0.068)	(0.042)
High F share	0.208	0.219	0.036	0.500	-0.025	0.023
	(0.132)	(0.132)	(0.096)	(0.148)	(0.151)	(0.101)
LFPR	1.566	0.390	-0.127	1.627	0.221	-0.107
	(0.235)	(0.112)	(0.041)	(0.203)	(0.167)	(0.051)
Female × High F share	-0.339	-0.164	-0.066	-0.336	-0.140	-0.009
	(0.156)	(0.103)	(0.095)	(0.128)	(0.099)	(0.097)
High F share × LFPR	-0.086	-0.053	0.076	-0.447	0.494	0.109
	(0.217)	(0.216)	(0.128)	(0.236)	(0.230)	(0.133)
Female × LFPR	-0.435	-0.065	-0.166	-0.278	-0.194	-0.101
	(0.205)	(0.112)	(0.079)	(0.155)	(0.100)	(0.055)
Female × LFPR	0.184	0.098	0.084	0.183	0.030	-0.030
× High F share	(0.215)	(0.147)	(0.133)	(0.181)	(0.132)	(0.126)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	300135	8181	8181	300135	8181	8181
R-squared	0.292	0.118	0.060	0.295	0.169	0.064

Notes. An observation is a worker-year. Pay is log pay plus bonus. Pay growth and promotion outcomes are restricted to new hires at the entry level observed for at least four years. High F share team is based on the leave-one-out share of women in the worker's sub-function, country, and month. Pay regressions include year fixed effects, function fixed effects, and a quadratic in tenure. Pay growth and promotion regressions control for entry pay. Standard errors clustered at the country-cohort level are reported in parentheses.

Table A.5
Gender pay gap and LFPR — fixed pay only

	Pay (logs)				
	(1)	(2)	(3)	(4)	(5)
Female	0.358	0.232	-0.061	0.230	0.167
	(0.135)	(0.092)	(0.164)	(0.091)	(0.074)
LFPR	1.582	1.578	0.387	1.599	0.144
	(0.282)	(0.212)	(0.153)	(0.204)	(0.234)
Female × LFPR	-0.533	-0.436	-0.283	-0.415	-0.328
	(0.185)	(0.131)	(0.111)	(0.129)	(0.100)
GDP per capita (logs)			0.299		
			(0.023)		
Female × GDP per capita (logs)			0.019		
			(0.016)		
Controls	No	Yes	Yes	Yes	Yes
Cohort FE	No	No	No	Yes	Yes
Country FE	No	No	No	No	No
N	303759	303759	302854	303759	303759
R-squared	0.110	0.285	0.456	0.309	0.552

Notes. An observation is a worker-year. Controls include: tenure, tenure squared, year FE and function FE. Standard errors clustered at the country-cohort level.

B Model calibration

B.1 Main approach

The key parameters of interest for the firm's wage policy are α^1_{gac} and β^1_{gac}, which are identified from the mean and variance of the observed wage distribution at the firm, respectively. These allow us to back out ability from observed wages for workers at the firm.

Since we do not observe the Stage 1 expected wage $\bar{y}^1_i$ or the value of staying at home y^0_i, we cannot separately identify $\bar{\alpha}^1_{gac}$ $\bar{\beta}^1_{gac}$, α^0_{gac}, ν^0_{gac} and ρ_{gac}. Without additional normalizations or assumptions, only the following composite parameters are identified:

$$\zeta_{gac} \equiv \frac{\alpha^0_{gac} - \bar{\alpha}^1_{gac}}{\sqrt{(\bar{\beta}^1_{gac})^2 + (\nu^0_{gac})^2 - 2\rho_{gac}\bar{\beta}^1_{gac}\nu^0_{gac}}}, \tag{B.1}$$

$$\theta_{gac} \equiv \beta^1_{gac} \times \frac{\bar{\beta}^1_{gac} - \rho_{gac}\nu^0_{gac}}{\sqrt{(\bar{\beta}^1_{gac})^2 + (\nu^0_{gac})^2 - 2\rho_{gac}\bar{\beta}^1_{gac}\nu^0_{gac}}}. \tag{B.2}$$

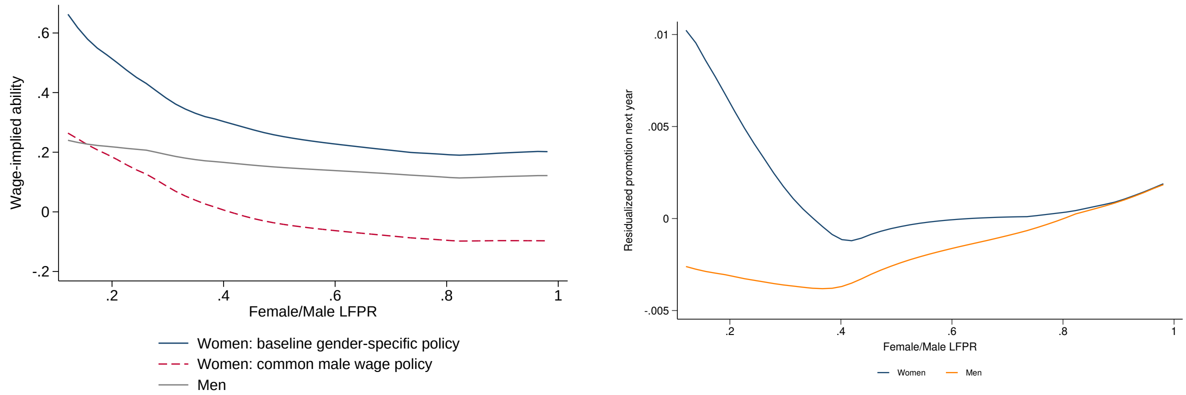
Here, ζ_{gac} is the participation threshold, pinned down by labor force participation, and θ_{gac} is a measure of the sign and strength of selection with respect to ability, identified by the skewness of the observed wage distribution (Heckman and Honoré, 1990).

In some of our counterfactual exercises, we compute the optimal wage policy for the firm assuming that it can influence participation thresholds. For that, we need to recover the parameters of the value of staying at home from the composite parameters $\zeta_{gac}, \theta_{gac}$. We make the assumption that our firm is representative, so that $\bar{\alpha}^1_{gac} = \alpha^1_{gac}$ and $\bar{\beta}^1_{gac} = \beta^1_{gac}$. Moreover, an additional normalization is required, since we have 2 moments to calibrate 3 structural parameters.

For our main specification, following Heckman and Honoré (1990), we normalize $\nu^0_{gac} \equiv 1$, which allows us to calibrate α^0_{gac}, and ρ_{gac}.

B.2 Common wage policy

Figure B.1: Common Wage Policy and LFPR



(a) Calibrated Productivity by Gender and LFPR

(b) Next Year Promotion Probability and LFPR

Notes. Panel (a) plots the average calibrated productivity for firm workers by Female/Male LFPR, smoothed using local linear regression. Panel (b) plots residualized next-year promotion outcomes by Female/Male LFPR, smoothed using local linear regression. Promotion outcomes are residualized with respect to year–month and function fixed effects, controlled for tenure and tenure squared (the same specification used to residualize pay in the model calibration). The unit of observation is a worker.

B.3 Robustness to alternative normalizations

An alternative normalization suggested by Heckman and Honoré (1990) is $\rho_{gac} = 0$, implying that productivity in the firm is independent of the value of staying at home. Figure B.2 shows that, regardless of whether we normalize ν^0_{gac} or ρ_{gac}, we obtain very similar values of α^0_{gac}. The correlation between α^0_{gac} in the main calibration and in the alternative calibration is 0.95 for women and 0.96 for men. Additionally, the results of our main counterfactual exercises are robust to this alternative calibration, as shown in Table B.1, to be compared with Panel C of Table 5.

Figure B.2: α^0_{gac} in the main and alternative calibration

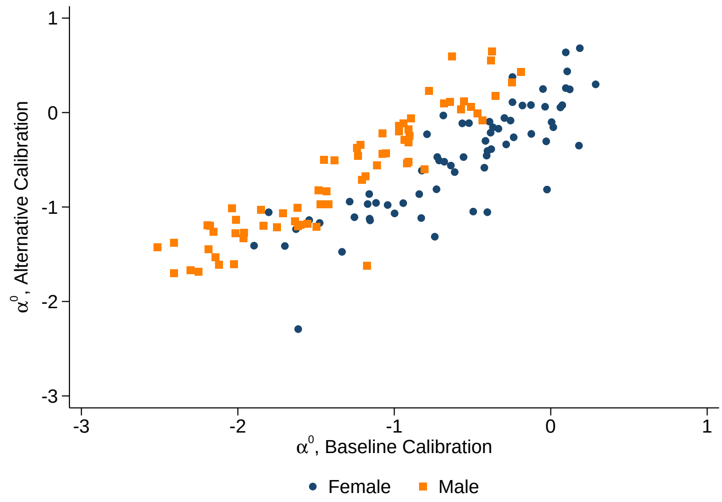


Table B.1
Summary of Counterfactual Results, Robustness

	Parameters		Results		
	α^1, β^1	α^0, β^0, ρ	Productivity	F/M Ratio	Pay Gap (F−M)
	Robustness Sample (60 country-cohort cells)				
(1)	Baseline	Baseline	0.50	0.69	−0.10
(2)	Optimal	Baseline	0.57	0.94	0.30
(3)	Baseline	Men's	0.51	0.81	−0.16
(4)	Optimal	Men's	0.61	1.00	0.00
(5)	Strict Labor Reg.	Baseline	0.55	0.98	0.24
(6)	Opt. with Equality	Baseline	0.55	0.86	0.06
(7)	Opt. with Equality	Men's	0.61	1.00	0.00

Notes. This table summarizes the counterfactual results (average productivity, female-to-male employee ratio, and pay gap) across country-cohort cells, weighted by cell size. Productivity ($LFP \cdot \mathbb{E}[A_i \mid \text{empl'd}]$) is measured in units of standard deviations of the underlying latent variable A_i. The pay gap is the difference in log-wage (female − male). In the "optimal" wage policy, the firm maximizes ability subject to an employment and a wage bill constraint, see section C. In the "strict labor regulations" counterfactual, the firm solves the same problem as in the "optimal" wage policy, with an additional cap on returns to ability. In the "optimal with equality" wage policy, the firm maximizes ability subject to an employment, a wage bill constraint, and an equality between men and women restriction. We report the same results as in Table 5 for 60 country-cohort cells, in which we can calibrate the parameters of the value of staying out of the labor force and compute all the counterfactual wage policies.

C Optimization problems for the firm's wage policy

The optimal policy we consider in subsection 5.1 solves, for each country-cohort cell, the following program:

$$\max_{(\tilde{\alpha}^1_{gac}, \tilde{\beta}^1_{gac})_{g \in \{F,M\}}} \quad \widetilde{LFP}_{Fac} \widetilde{A}_{Fac} + \widetilde{LFP}_{Fac} \widetilde{A}_{Mac}$$

subj. to:

$$\widetilde{LFP}_{Fac} + \widetilde{LFP}_{Mac} \geq LFP_{Fac} + LFP_{Mac} \tag{i}$$

$$\widetilde{LFP}_{Fac}\widetilde{W}_{Fac} + \widetilde{LFP}_{Mac}\widetilde{W}_{Mac} \leq LFP_{Fac}W_{Fac} + LFP_{Mac}W_{Mac} \tag{ii}$$

where

$$\widetilde{LFP}_{gac} = 1 - \Phi\left(\frac{\alpha^0_{gac} - \tilde{\alpha}^1_{gac}}{\sqrt{(\tilde{\beta}^1_{gac})^2 + (\nu^0_{gac})^2 - 2\rho_{gac}\tilde{\beta}^1_{gac}\nu^0_{gac}}}\right)$$

$$\widetilde{A}_{gac} = \frac{\tilde{\beta}^1_{gac} - \rho_{gac}\nu^0_{gac}}{\sqrt{(\tilde{\beta}^1_{gac})^2 + (\nu^0_{gac})^2 - 2\rho_{gac}\tilde{\beta}^1_{gac}\nu^0_{gac}}}\lambda\left(\frac{\alpha^0_{gac} - \tilde{\alpha}^1_{gac}}{\sqrt{(\tilde{\beta}^1_{gac})^2 + (\nu^0_{gac})^2 - 2\rho_{gac}\tilde{\beta}^1_{gac}\nu^0_{gac}}}\right)$$

$$\widetilde{W}_{gac} = \tilde{\alpha}^1_{gac} + \tilde{\beta}^1_{gac}\widetilde{A}_{gac}$$

are the probability of being employed, average ability conditional on being employed, and average wage conditional on being employed, and LFP_{gac}, W_{gac} are the observed LFP and average wages. The objective is average productivity in the firm ($LFP \cdot \mathbb{E}[A \mid \text{empl'd}]$). Constraint (i) states that total employment (or LFP) should be equal to or greater than the total LFP at baseline. Constraint (ii) states that the total wage bill should be equal to or smaller than the total wage bill at baseline.

The optimal wage policy with equality constraint solves the program above with the additional restriction that $\tilde{\alpha}^1_{Fac} = \tilde{\alpha}^1_{Mac}$ and $\tilde{\beta}^1_{Fac} = \tilde{\beta}^1_{Mac}$ for all a, c. That is, the firm needs to have the same wage policy for males and females within a country-cohort cell so that workers with equal ability are paid the same.

D Tertiary education LFPR robustness

In the main analysis, we use overall labor force participation to calibrate the participation margin. This choice maximizes sample coverage (260 instead of 204 country-cohort cells in the structural sample, and 114 instead of 72 cells in Counterfactual I). However, labor force participation among individuals with tertiary education is arguably a closer proxy for the relevant labor supply pool faced by the firm, given the MNE's educational requirements. In this appendix, we repeat the structural calibration using country-cohort-gender labor force participation among individuals with tertiary education. We view the tertiary educated LFP calibration as a robustness exercise rather than as the main specification because the tertiary education LFP data are missing for a larger set of country-cohort-gender cells, especially in countries with low female labor force participation.

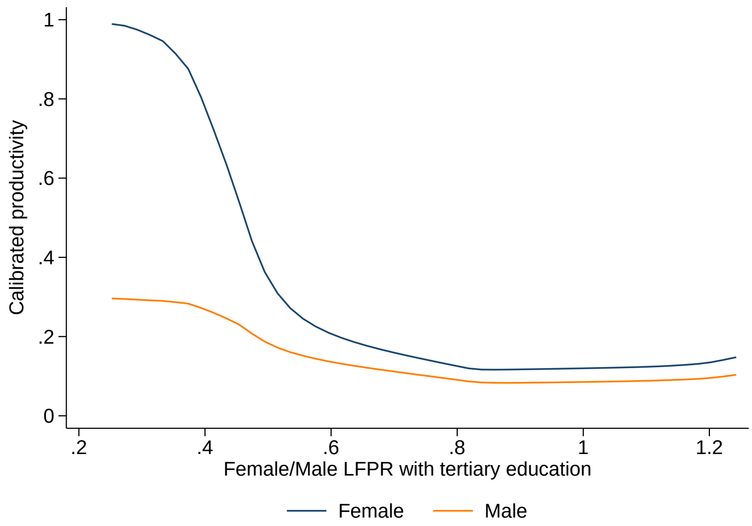
The calibration follows the same procedure described in subsection 4.2. The only difference is that the empirical analog for LFP_{gac} is the LFP among individuals with tertiary education, rather than the overall LFP. Under the two-stage structure of the model, this measure captures participation in the educated labor force pool from which the MNE is more likely to hire. The moments of the wage distribution among MNE employees continue to identify the firm's wage policy parameters, while the tertiary educated LFP measure identifies the participation threshold ξ_{gac}.

Figure D.1 replicates the calibrated productivity exercise using the tertiary education LFPR measure. The pattern is very similar to the baseline results in Figure 5: average calibrated productivity is approximately flat for male workers, whereas female workers are more positively selected when female labor force participation is low relative to male labor force participation. As the tertiary education LFPR approaches one, average calibrated productivity among women declines and converges toward that of men. Figure D.2 shows that this pattern reflects a shift in the productivity distribution of women. As the tertiary education LFPR increases, the distribution shifts to the left.

To assess the tertiary education LFP calibration, we repeat the validation exercises. Figure D.3 shows that calibrated productivity remains positively correlated with non-targeted performance measures. Workers with higher calibrated productivity receive higher performance scores and experience faster pay growth among new hires. The slopes and overall patterns are similar to the baseline validation in Figure 7. Figure D.4 shows that the calibrated structural parameters have similar external correlations as in the baseline calibration. The gender gap in the value of staying out of the labor force is larger in countries with more conservative gender norms and more restrictive legal environments for women. Returns to productivity are also lower where labor regulations are more restrictive. These patterns closely mirror those in Figure 8.

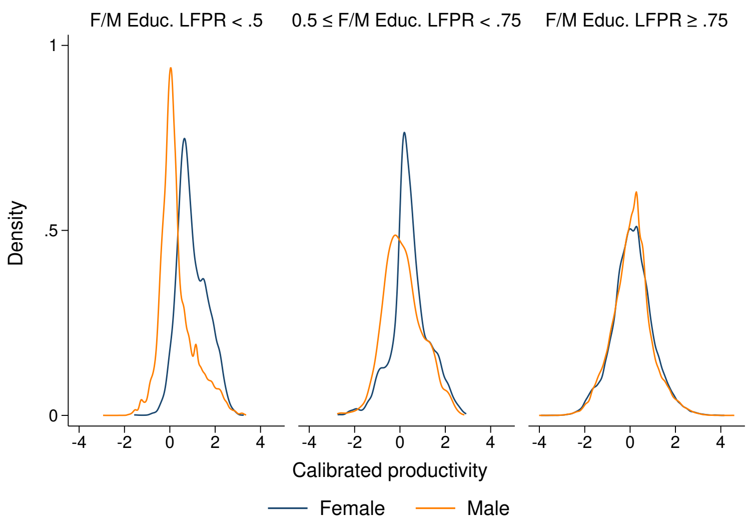
Table D.1 shows the calibrated parameters. The counterfactual results are also qualitatively similar to the baseline calibration as shown in Table D.2. Under the optimal wage policy, the firm increases productivity by attracting more women, exploiting the fact that female workers are more positively selected when participation barriers are high. As in the baseline calibration, this comes at the cost of substantially higher within-firm pay inequality between women and men. When women's outside-option parameters are set equal to men's, the productivity-inequality trade-off disappears: the optimal policy delivers gender parity in employment and eliminates the gender pay gap. The strict labor regulation counterfactual has the same interpretation as in the baseline calibration. By limiting returns to productivity, stricter regulation reduces the firm's ability to attract high-ability workers, especially women in low-participation labor markets.

Figure D.1: Calibrated Productivity by Gender — Tertiary Education LFP



Notes. The figure plots the average calibrated productivity for our sample of firm workers by Female/Male tertiary educated LFP, smoothed through a local linear regression. The unit of observation is a worker.

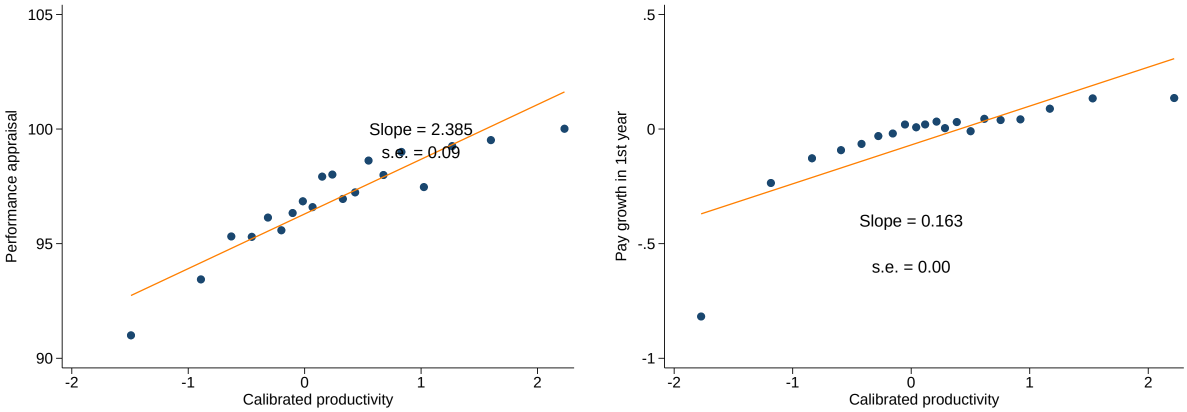
Figure D.2: Calibrated Productivity Distribution by Gender — Tertiary Education LFP



Notes. The figure plots a kernel density estimate of calibrated productivity for our sample of firm workers by three tertiary educated LFPR groups: $[0, .5)$, $[.5, .75)$ and $[.75, 1]$. The unit of observation is a worker.

Figure D.3: Calibrated Productivity and Non-targeted Performance Measures — Tertiary Education LFP

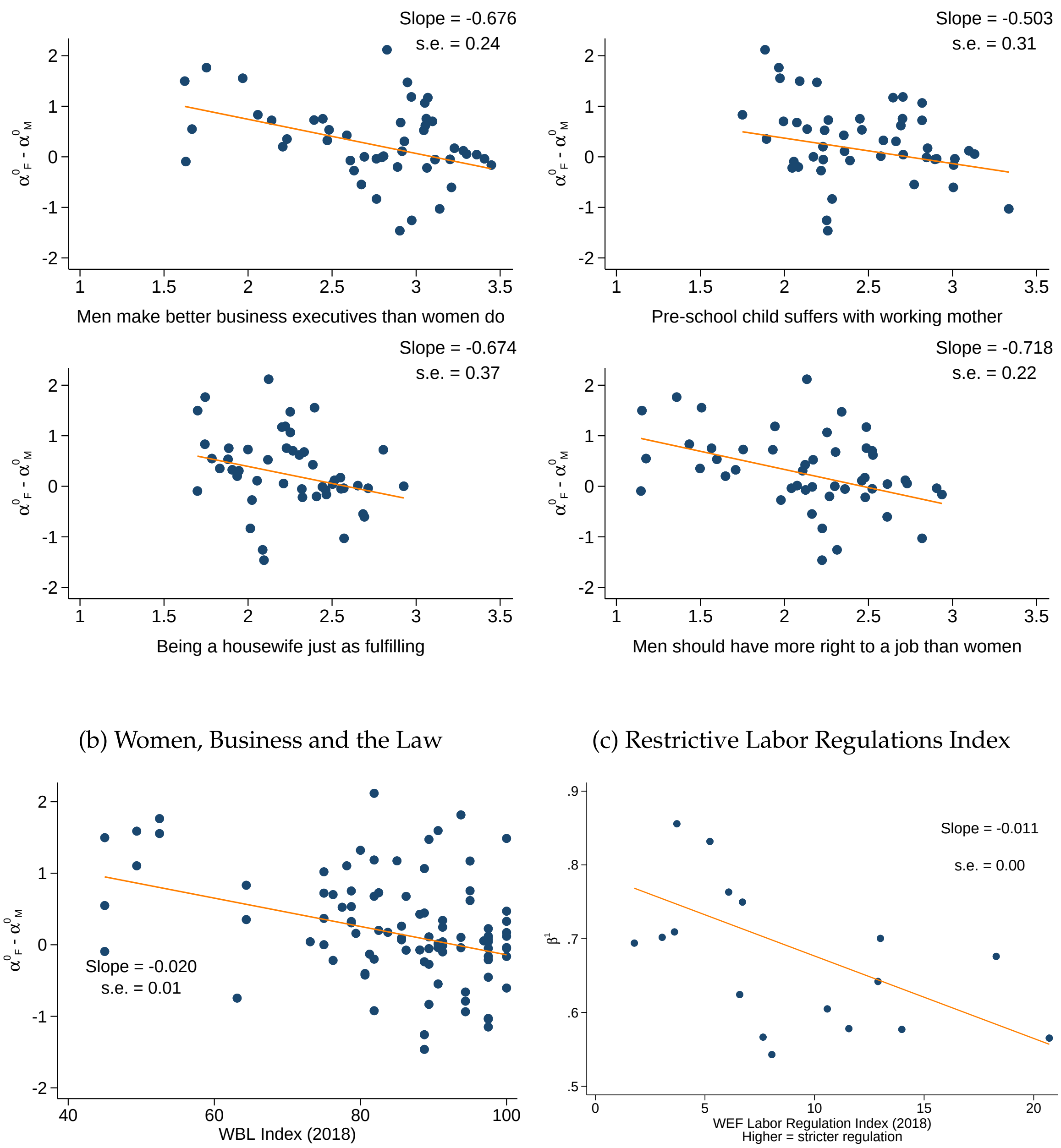
(a) Performance score given by manager (b) Pay growth in the first year (new hires)



Notes. The figures are binned scatterplots and a linear fit of other performance measures (performance score, pay growth for new hires) against our calibrated productivity. The unit of observation is a worker-year. The performance score is an annual performance rating given by the line manager to each subordinate (continuous variable with values ranging between 0 and 150).

Figure D.4: Calibrated Parameters, Norms and Labor Regulations — Tertiary Education LFP

(a) World Value Survey



Notes. Panel (a) shows scatterplots and fitted linear regressions of the gap in calibrated $\alpha^0_{Ftac} - \alpha^0_{Mtac}$ against four questions in the World Value Survey: (1) "Men make better business executives than women do," (2) "Pre-school child suffers with working mother," (3) "Being a housewife is just as fulfilling as working," (4) "When jobs are scarce, men should have more right to a job than women." For all questions, lower values of the index denote more agreement with the statement. Each dot is a country-cohort cell. Panel (b) shows the scatterplot and fitted linear regression of the gap in calibrated $\alpha^0_{Ftac} - \alpha^0_{Mtac}$ against the WB Women, Business, and the Law index in 2018. A higher value means fewer legal constraints on women's work. Each dot is a country cell. In all cases, the regression line uses cell size (at the firm) as analytic weights. Panel (c) shows the binned scatterplot and a linear fit of our calibrated parameters β^1_{gac} against the Restrictive Labor Regulations Index in 2018, using gender-country-cohort cell size (at the firm) as analytic weights.

Table D.1
Summary Statistics of Counterfactual Samples — Tertiary Education LFP

	Male				Female			
	mean	sd	min	max	mean	sd	min	max
A. Full Structural Sample (204 country-cohort cells)								
α^1_{gac}	-0.02	0.59	-1.19	1.43	-0.25	0.74	-2.05	1.23
β^1_{gac}	0.67	0.17	0.21	1.33	0.73	0.24	0.24	1.45
ξ_{gac}	-1.10	0.23	-3.09	-0.40	-0.56	0.50	-3.09	0.82
θ_{gac}	0.30	0.66	-1.49	2.89	0.35	0.61	-1.54	2.68
B. Counterfactual Sample I (72 country-cohort cells)								
α^1_{gac}	0.04	0.48	-1.19	1.11	-0.10	0.51	-1.91	0.86
β^1_{gac}	0.57	0.14	0.21	0.96	0.58	0.16	0.25	1.10
ξ_{gac}	-1.02	0.23	-1.80	-0.52	-0.65	0.33	-1.17	0.82
θ_{gac}	0.25	0.44	-0.61	0.89	0.26	0.39	-0.68	0.94
α^0_{gac}	-1.17	0.79	-3.20	0.51	-0.84	0.60	-2.30	0.46
ν^0_{gac}	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
ρ_{gac}	-0.14	0.79	-0.98	1.00	-0.14	0.60	-0.95	0.99
C. Counterfactual Sample II (56 country-cohort cells)								
α^1_{gac}	-0.04	0.40	-1.19	1.11	-0.21	0.46	-1.91	0.86
β^1_{gac}	0.58	0.13	0.21	0.96	0.59	0.15	0.25	1.10
ξ_{gac}	-1.04	0.22	-1.80	-0.52	-0.64	0.36	-1.17	0.82
θ_{gac}	0.30	0.44	-0.52	0.89	0.34	0.34	-0.46	0.94
α^0_{gac}	-1.32	0.65	-3.20	0.51	-0.98	0.49	-2.30	0.46
ν^0_{gac}	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
ρ_{gac}	-0.24	0.77	-0.97	0.99	-0.23	0.57	-0.95	0.98

Notes. This table summarizes the parameters by gender-country-cohort cells, using cell sizes as analytic weights. Panel A reports the parameters that are point identified without additional normalizations, as discussed in subsection 4.2, in the full structural sample (204). Panel B additionally reports the parameters relating to the value of staying out of the labor force, under the normalization $\nu^0_{gac} \equiv 1$, excluding cells in which (a) we cannot calibrate α^0, ν^0 and ρ, or (b) we cannot compute one of the optimal wage policies for the main set of counterfactuals. Panel C reports the same parameters under the same normalization as Panel B, restricting the sample to the country-cohort cells for which we can compute the "optimal with equality" wage policy.

Table D.2
Summary of Counterfactual Results — Tertiary Education LFP

	Parameters		Results		
	α^1, β^1	α^0, β^0, ρ	Productivity	F/M Ratio	Pay Gap (F-M)
	A. Full Structural Sample (204 country-cohort cells)				
(1a)	Baseline	Baseline	0.23	0.81	−0.07
	B. Counterfactual Sample I (72 country-cohort cells)				
(1b)	Baseline	Baseline	0.21	0.87	−0.08
(2b)	Optimal	Baseline	0.39	0.95	0.52
			[0.32, 0.43]		
(3b)	Baseline	Men's	0.15	0.94	−0.15
			[-0.01, 0.23]		
(4b)	Optimal	Men's	0.41	1.00	0.00
			[0.34, 0.44]		
(5b)	Strict Labor Reg.	Baseline	0.29	0.98	0.32
			[0.15, 0.33]		
	C. Counterfactual Sample II (56 country-cohort cells)				
(1c)	Baseline	Baseline	0.26	0.86	−0.08
(2c)	Optimal	Baseline	0.42	0.95	0.58
			[0.33, 0.45]		
(3c)	Baseline	Men's	0.20	0.95	−0.15
			[0.00, 0.29]		
(4c)	Optimal	Men's	0.45	1.00	0.00
			[0.38, 0.48]		
(5c)	Strict Labor Reg.	Baseline	0.32	0.97	0.32
			[0.15, 0.37]		
(6c)	Opt. with Equality	Baseline	0.37	0.87	0.08
			[0.28, 0.41]		
(7c)	Opt. with Equality	Men's	0.45	1.00	0.00
			[0.38, 0.48]		

Notes. This table summarizes the counterfactual results (average productivity, female-to-male employee ratio, and pay gap) across country-cohort cells, weighted by cell size. Productivity ($LFP \cdot \mathbb{E}[A_i \mid \text{empl'd}]$) is measured in units of standard deviations of the underlying latent variable A_i. The pay gap is the difference in log-wage (female − male). In the "optimal" wage policy, the firm maximizes ability subject to an employment and a wage bill constraint, see section C. In the "strict labor regulations" counterfactual, the firm solves the same problem as in the "optimal" wage policy, with an additional cap on returns to ability. In the "optimal with equality" wage policy, the firm maximizes ability subject to an employment, a wage bill constraint, and an equality between men and women restriction. Panel A reports the baseline results in the full structural sample (204 cells). Panel B reports a set of counterfactual results for 72 cells, which exclude those in which (a) we cannot calibrate α^0, ν^0, and ρ, or (b) we cannot compute one of the optimal wage policies for the counterfactuals reported. Panel C reports the same results for 56 cells, in which we can additionally compute the "optimal with equality" wage policy. The remaining cells are excluded primarily because the feasible region is empty (i.e., the firm cannot choose a wage policy that satisfies the LFP, the wage bill and the equality constraint at the same time). Square brackets report 95% bootstrap confidence intervals based on 300 bootstrap replications.