

## Appendix A

**Table 1A.** Number of firms by firm age and size (Study 1, Observational Data)

Firm size	Firm age				
	1	2	3	4	5
1-5	21,502	20,466	20,205	18,555	15,220
6-10	6,913	7,246	7,162	6,750	5,827
11-25	3,083	3,512	3,571	3,385	2,962
26-50	612	737	783	768	653
51-100	155	225	210	208	197
101-250	53	63	73	73	62
251-500	8	12	9	9	10
Total	32,326	32,261	32,013	29,748	24,931

**Table 2A.** Descriptive statistics: Employees in female-led start-up firms (Study 1, Observational Data)

	All employees - female-led firms				Full-time employees - female-led firms			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Number of monthly hours worked	160.019	29.131	0	208	169.59	11.666	0	208
Number of supplementary hours worked (month)	0.752	5.008	0	173	0.787	5.215	0	173
Normal work period (week)	39.141	4.092	0	48	39.653	2.463	0	48
Female founders	1	0	1	1	1	0	1	1
Mixed gender founders	0	0	0	0	0	0	0	0
Female employee	0.513	0.5	0	1	0.52	0.5	0	1
Age	34.886	10.04	18	60	34.915	10	18	60
Born in Portugal	0.948	0.223	0	1	0.952	0.214	0	1
Below high school education	0.729	0.445	0	1	0.714	0.445	0	1
High school completed	0.184	0.388	0	1	0.199	0.399	0	1
University Education	0.077	0.267	0	1	0.078	0.268	0	1
Education unknown	0.01	0.098	0	1	0.009	0.094	0	1
Years in wage employment	10.811	6.335	0	23	10.849	6.328	0	23
Years as employer/entrepreneur	1.621	3.218	0	22	1.641	3.228	0	22
Monthly wage (log)	6.316	0.487	4.559	8.412	6.399	0.431	4.657	8.412
Mean age of the founder	36.506	8.781	18	60	36.707	8.788	18	60
Founder has below high school	0.551	0.495	0	1	0.54	0.495	0	1
Founder has high school completed	0.239	0.423	0	1	0.243	0.424	0	1
Founder has university education	0.193	0.392	0	1	0.201	0.398	0	1
Founder has education unknown	0.017	0.128	0	1	0.016	0.125	0	1
Founder's years in wage employment	11.58	5.754	0	22.8	11.598	5.79	0	22.8
Founder's years as employer/entrepreneur	4.474	3.437	0	21.667	4.489	3.463	0	21.667
Share of native-born founders	0.976	0.154	0	1	0.977	0.15	0	1
Firm age	3.221	1.224	1	5	3.23	1.222	1	5
Firm size (log number of employees)	2.425	1.08	0.693	5.861	2.323	1.019	0.693	5.861
Firm sales (log)	12.43	1.565	7.636	18.968	12.417	1.557	7.636	18.968
Part-time employees	0.199	0.399	1	0	0	0	0	0
Observations (employee-firm-year)	155,024				124,142			

**Table 3A. Correlation matrix (Study 1, Observational Data)**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1 Number of monthly hours worked	1.00																								
2 Number of supplementary hours worked	0.02	1.00																							
3 Normal work period (week)	0.38	-0.01	1.00																						
4 Female founders	-0.02	0.01	-0.01	1.00																					
5 Mixed gender founders	0.01	-0.01	0.01	-0.22	1.00																				
6 Female employee	-0.02	-0.01	-0.01	0.13	0.01	1.00																			
7 Age	-0.00	0.01	0.00	-0.01	-0.01	-0.06	1.00																		
8 Born in Portugal	0.00	0.01	-0.00	-0.00	0.01	0.02	0.07	1.00																	
9 High school completed	-0.01	0.00	-0.02	0.02	-0.02	0.06	-0.17	-0.00	1.00																
10 University Education	-0.07	-0.01	-0.06	0.01	-0.01	0.05	-0.09	0.04	-0.14	1.00															
11 Education unknown	0.01	0.00	0.00	-0.00	0.00	-0.01	-0.03	-0.26	-0.05	-0.03	1.00														
12 Years in wage employment	0.02	0.02	0.02	0.00	-0.01	-0.07	0.64	0.20	-0.14	-0.15	-0.07	1.00													
13 Years as employer/entrepreneur	0.00	-0.00	-0.01	-0.00	-0.00	-0.10	0.25	0.07	-0.03	-0.03	-0.02	0.36	1.00												
14 Monthly wage	0.14	0.05	0.05	-0.03	-0.02	-0.10	0.12	0.03	0.09	0.33	-0.02	0.14	0.09	1.00											
15 Mean age of the founder	-0.01	0.01	0.00	-0.11	-0.01	-0.00	0.14	0.03	-0.02	-0.02	-0.01	0.09	0.03	0.05	1.00										
16 Founder has high school completed	0.00	0.00	-0.01	0.03	-0.02	0.02	-0.01	-0.01	0.20	-0.02	-0.01	-0.00	0.00	0.06	-0.14	1.00									
17 Founder has university education	-0.03	0.05	-0.03	0.04	-0.03	0.05	0.02	0.01	0.12	0.35	-0.02	-0.04	-0.02	0.29	-0.03	-0.23	1.00								
18 Founder has education unknown	0.01	0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.05	-0.02	-0.02	0.18	-0.02	-0.01	-0.04	0.01	-0.08	-0.07	1.00							
19 Founder's years in wage employment	0.00	0.01	0.01	-0.03	-0.02	-0.01	0.04	0.04	-0.01	-0.02	-0.01	0.17	0.08	0.07	0.23	-0.01	-0.08	-0.20	1.00						
20 Founder's years as employer/entrepreneur	0.02	0.01	0.02	-0.10	0.00	-0.01	0.03	0.03	-0.02	-0.02	-0.01	0.09	0.08	0.03	0.30	-0.04	-0.03	-0.00	0.33	1.00					
21 Share of native-born founders	0.00	-0.00	0.00	-0.02	0.02	-0.00	0.02	0.28	-0.01	0.00	-0.08	0.06	0.02	-0.02	0.04	-0.01	0.01	-0.15	0.09	0.05	1.00				
22 Firm age	-0.00	0.01	0.02	-0.01	0.00	-0.00	0.04	0.01	0.02	0.04	-0.03	0.09	0.04	0.16	-0.03	-0.01	0.02	0.01	0.01	0.04	0.01	1.00			
23 Firm size	-0.00	0.07	0.01	-0.03	0.03	-0.02	0.05	-0.02	-0.09	0.03	-0.01	0.11	-0.01	0.25	0.05	-0.01	0.11	-0.02	0.07	0.08	-0.00	0.06	1.00		
24 Firm sales	0.01	0.09	0.01	-0.06	0.02	-0.03	0.04	0.01	0.06	0.11	-0.03	0.10	0.02	0.41	0.12	0.05	0.22	-0.03	0.09	0.12	0.00	0.26	0.63	1.00	

N = 461,973

**Table 4A.** The effect of founder gender on employees' extra hours worked: Zero-Inflated Negative Binomial model (Study 1, Observational Data)

	Second stage: number of extra hours
<b><u>Founder Characteristics</u></b>	
<b>Female founders</b>	<b>-0.061 + (0.037)</b>
Mixed gender founders	-0.096 (0.065)
Mean age of the founder	-0.000 (0.002)
% Founders with high school completed	-0.099 * (0.046)
% Founders with university education	0.009 (0.052)
% Founder with unknown education	0.088 (0.067)
Founder's years in wage employment (mean)	-0.000 (0.003)
Founder's years as employer/entrepreneur (mean)	-0.002 (0.004)
% Native born founders	0.033 (0.110)
<b><u>Employee Characteristics</u></b>	
Female employee	-0.051 ** (0.018)
Age	0.004 *** (0.001)
High school completed	-0.009 (0.028)
University Education	-0.190 *** (0.054)
Education unknown	0.155 (0.084)
Years in wage employment	0.003 + (0.002)
Monthly wage (log)	0.052 (0.075)
<b><u>Firm Characteristics</u></b>	
Firm age	0.018 (0.014)
Firm size (log no. Employees)	-0.102 *** (0.017)
	First stage: probability (not working extra hours)
Born in Portugal	0.173 + (0.099)
Years as entrepreneur	0.088 * (0.036)
Firm sales (log)	-0.380 *** (0.035)
Years as entrepreneur*Firm sales	-0.006 * (0.003)
Year FE, 2-digit Industry FE, County FE and Employee Qualification (1digit occupation) FE	Yes
Observations	461,973
Log pseudo likelihood	-136,850

+ p < 0.10; \* p < 0.5; \*\* p < 0.01; \*\*\* p < 0.001. Values in parentheses are standard errors clustered at the firm-level.

**Table 5A.** The effect of founder gender on employees' hours worked: robustness checks with alternative estimation methods (Study 1, Observational Data)

	Linear models with clustered standard errors			Individual Fixed effects models with two-way clustering (worker and firm)		
	Number of regular hours per month	Number of extra hours per month	Regular period of work per week	Number of regular hours per month	Number of extra hours per month	Regular period of work per week
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Founder Characteristics</b>						
Female founders	-0.349 ** (0.135)	-1.247 (0.873)	-0.071 * (0.028)	-0.398 *** (0.093)	-0.070 (1.780)	-0.049 * (0.019)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry (2d) FE	Yes	Yes	Yes	Yes	Yes	Yes
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Qualification FE (1digit-occupation)	Yes	Yes	Yes	Yes	Yes	Yes
Observations	461,973	17,485	461,973	461,973	17,485	461,973
Adjusted R2	0.089	0.156	0.107	0.091	0.074	0.075

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. Models 1 to 3 are three-level mixed-effects count models with random intercepts at both the firm and the worker-within-firm levels. These are non-linear models and due to computational constraints, models 1 and 3 are restricted to a random sample obtained from the original sample used in Table 2. Models 4 to 6 are OLS models with clustered standard errors at the firm-level. Models 7 and 9 are OLS models with individual fixed effects and two-way clustering of the standard errors (at the individual and firm levels). All models are restricted to full-time employees. Models 2, 5 and 8 are restricted to workers with a positive number of extra hours.

**Table 6A.** The effect of founder gender on employees' hours worked: estimations including part-time workers (Study 1, Observational Data)

	Multi-level/hierarchical linear models			Count Models		
	Number of regular hours per month (1)	Number of extra hours per month (2)	Regular period of work per week (3)	Number of regular hours per month (4)	Number of extra hours per month (5)	Regular period of work per week (6)
<b>Founder Characteristics</b>						
Female founders	0.001 (0.079)	-1.499 *** (0.310)	-0.036 * (0.016)	-0.000 (0.002)	-0.059 + (0.035)	-0.001 (0.001)
Part-time contract	-35.170 *** (0.069)	-2.596 *** (0.276)	-0.527 *** (0.009)	-0.271 *** (0.003)	-0.180 *** (0.032)	-0.040 *** (0.002)
Same controls and in Table 2	Yes	Yes	Yes	Yes	Yes	Yes
Year FE, 2-digit Industry FE, County FE and Employee Qualification (1 digit occupation) FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	582,417	22,661	582,417	582,417	22,661	582,417

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001.

**Table 7A.** The effect of founder gender on employees' hours worked: Propensity Score Matching (PSM) estimates (Study 1, Observational Data)

	Number of regular hours per month (1)	Number of extra hours per month (2)	Regular period of work per week (3)
Female founders	-0.358*** (0.054)	-1.628** (0.744)	-0.063*** (0.023)
Observations	461,973	17,485	461,973

+ p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001. The variables used in the estimation of the propensity score are listed in Table 7A, together with year, industry (2d), county and employee qualification dummies. The algorithm we use identifies each employee's "nearest neighbor" with replacement, thus reducing estimation bias at the cost of higher variance.

**Table 8A.** Covariate balance summary after PSM (Study 1, Observational Data)

	<b>Standardized differences</b>		<b>Variance Ratio</b>	
	<b>Raw</b>	<b>Matched</b>	<b>Raw</b>	<b>Matched</b>
Female employee	0.300	0.028	1.064	0.998
Employee age	-0.016	0.007	0.979	1.016
Employee is Portuguese	-0.007	0.005	1.031	0.978
Employee has secondary education	0.041	-0.007	1.067	0.990
Employee has university degree	0.026	0.003	1.086	1.008
Employee education is unknown	0.002	-0.005	1.018	0.953
Years of employment experience	0.006	0.006	1.018	1.013
Years of entrepreneurial experience	-0.011	0.002	0.982	1.005
Monthly wage (log)	-0.076	-0.013	0.948	1.052
Number of founders	-0.564	0.037	0.189	1.154
Founder Age	-0.249	0.003	0.958	0.940
Share of Founders with secondary education	0.075	-0.008	1.199	0.989
Share of founders with university education	0.078	0.008	1.203	1.010
share of founders with unknown education	-0.030	0.002	0.823	1.018
Founders' employment experience (years)	-0.073	-0.004	0.994	0.956
Founders' entrepreneurial experience (years)	-0.238	0.007	0.823	1.048
Share of Portuguese founders	-0.032	0.006	1.312	0.967
Firm age (years)	-0.026	-0.010	0.987	0.994
Firm size (log)	-0.072	0.017	1.060	1.143
Firm sales (log)	-0.141	-0.008	0.959	1.084

Besides the covariates listed above, the estimation of the propensity score further included dummies for employee's qualification level, firm's industry and municipality, and year dummies. The balance for these variables was in general satisfactory and detailed statistics are available upon request.

**Table 9A.** Founding team gender and employee labor: subsample of employees in firms with below-average employment size and above-average sales volume (Study 1, Observational Data)

	Count Models			Linear Models (OLS)		
	Number of regular hours per month	Number of extra hours per month	Regular period of work per week	Number of regular hours per month	Number of extra hours per month	Regular period of work per week
	(1)	(2)	(3)	(4)	(5)	(6)
Female founders	-0.002 *	-0.167 *	-0.001 +	-0.296 *	-2.868	-0.046 +
	(0.001)	(0.067)	(0.001)	(0.130)	(1.510)	(0.025)
All controls as in Table 2	Yes	Yes	Yes	Yes	Yes	Yes
Observations	78,177	1,562	78,177	78,177	1,562	78,177
Pseudo R2 (count models) Adj. R2 (OLS)	0.001	0.063	0.002	0.082	0.396	0.100

+ p < 0.10; \* p < 0.05. Values in parentheses are standard errors clustered at the firm-level.

**Table 10A.** Pre-Test Results for Male and Female Names (Study 2, Experimental Data)

	Black	Male	SES	Respondents
Joe	0.00	1.00	1.87	44
Matthew	0.07	0.98	1.98	44
Chloe	0.07	0.00	1.89	45
Amanda	0.05	0.00	1.91	42

**Table 11A.** Respondent Characteristics by Treatment: Balance Table (Study 3, Experimental Data)

	Control (Male Founder: N=493)		Treatment (Female Founder: N=489)		Diff	p-value
	Mean	SD	Mean	SD		
Male Respondent	0.434	0.496	0.483	0.500	-0.079	0.013
White	0.803	0.398	0.818	0.386	-0.015	0.556
Education	3.738	1.234	3.869	1.275	-0.131	0.103
Worked for Startup	0.150	0.358	0.147	0.355	0.003	0.900
Age	2.730	1.292	2.646	1.131	0.084	0.279

**Table 12A.** Average Causal Mediation Effect (Study 3, Experimental Data) – based on models reported in Table 6

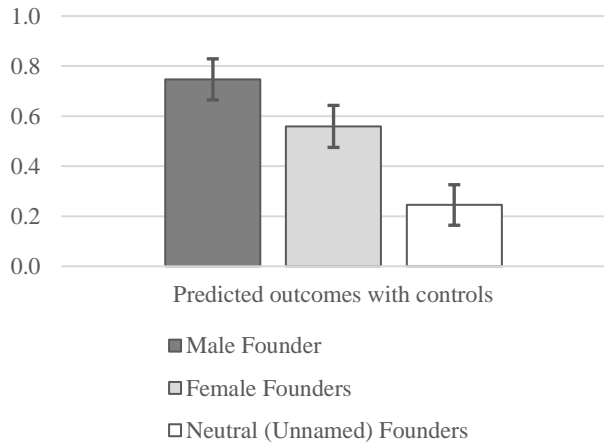
	Mean	95% Conf. Interval	Sensitivity
<b>a) Model 3 (Likelihood of Extra Work mediated by “Request in Unfair”)</b>			
ACME	-0.015	-0.031	-0.000
Direct Effect	-0.046	-0.100	0.009
Total Effect	-0.061	-0.116	-0.003
% of Tot Eff mediated	0.235	0.111	1.447
Rho at which ACME=0			-0.251
<b>b) Model 4 (Extra Work Volume mediated by “Request in Unfair”)</b>			
ACME	-0.064	-0.135	-0.002
Direct Effect	-0.186	-0.415	0.052
Total Effect	-0.250	-0.485	-0.006
% of Tot Eff mediated	0.252	0.112	1.792
Rho at which ACME=0			-0.260
<b>c) Model 6 (Likelihood of Extra Work mediated by “Work is Harder than Expected”)</b>			
ACME	-0.007	-0.016	-0.000
Direct Effect	-0.054	-0.109	0.004
Total Effect	-0.061	-0.114	-0.004
% of Tot Eff mediated	0.112	0.054	0.758
Rho at which ACME=0			-0.067
<b>d) Model 7 (Extra Work Volume mediated by “Work is Harder than Expected”)</b>			
ACME	-0.027	-0.065	0.001
Direct Effect	-0.223	-0.462	0.023
Total Effect	-0.250	-0.479	-0.006
% of Tot Eff mediated	0.107	0.047	0.759
Rho at which ACME=0			-0.059

**Table 13A.** Additional tests for general gender bias (Study 2, Experimental Data)

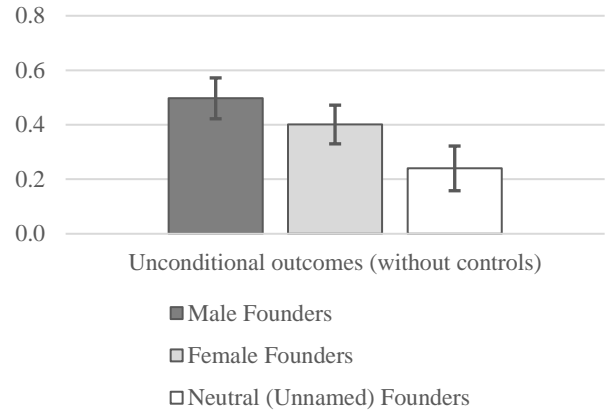
	Work Errors				Work Time			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b><u>Treatments</u></b>								
Male Founders	0.011 (0.035)		0.028 (0.039)		3.246*** (0.589)		4.062*** (0.607)	
Female Founders	0.042 (0.034)	0.031 (0.030)	0.036 (0.0373)	0.007 (0.037)	2.161*** (0.583)	-1.085* (0.536)	2.100*** (0.583)	-1.942** (0.633)
<b><u>Control Variables: Respondent's Characteristics</u></b>								
Male			0.105*** (0.031)	0.159*** (0.038)			-1.338** (0.487)	-1.574 ** (0.639)
Education			-0.023 (0.017)	-0.046 (0.019)			0.539* (0.266)	0.426 (0.337)
White			0.053 (0.038)	0.055 (0.045)			-1.581** (0.587)	-2.032** (0.767)
Worked for Startup			0.168*** (0.042)	0.187*** (0.048)			0.642 (0.692)	0.057 (0.864)
Age			-0.011 (0.007)	-0.012+ (0.008)			0.101 (0.091)	0.063 (0.102)
Constant	2.533*** (0.03)	2.575*** (0.020)	2.524*** (0.080)	2.611*** (0.092)	6.160*** (0.463)	8.319*** (0.373)	5.870*** (1.256)	9.041*** (1.573)
Specification	Poisson	Poisson	Poisson	Poisson	OLS	OLS	OLS	OLS
Observations	457	353	333	229	457	353	333	229
$R^2$					0.063	0.012	0.182	0.105
Pseudo $R^2$	0.001	0.000	0.015	0.024				

Standard errors in parentheses; +  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ ; two-tailed tests

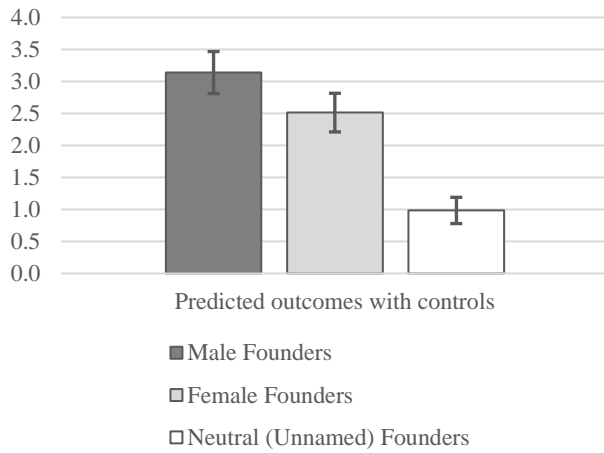
**Fig. 1A. Likelihood of Extra Work**



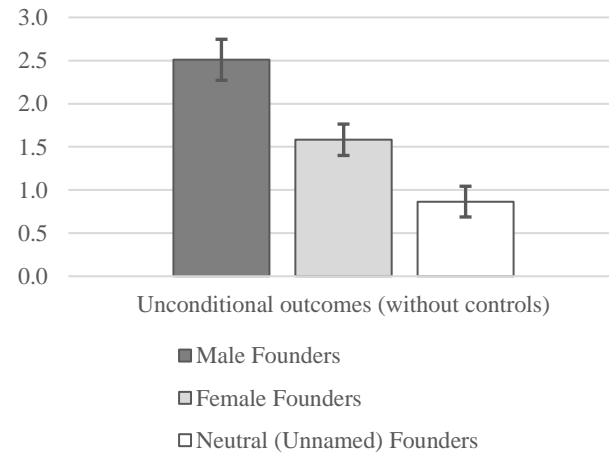
**Fig. 1B. Likelihood of Extra Work (no controls)**



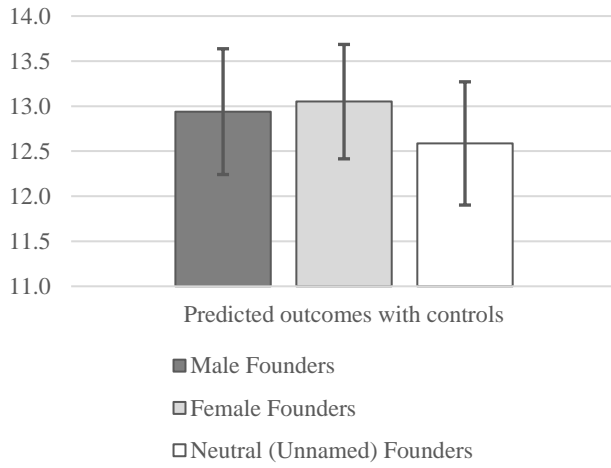
**Fig. 2A. Extra Work Volume**



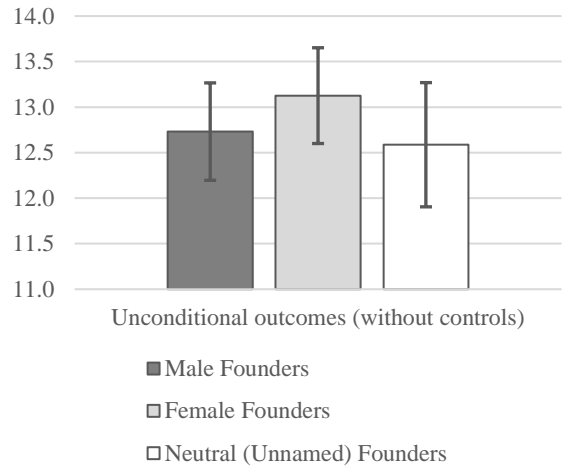
**Fig. 2B. Extra Work Volume (no controls)**



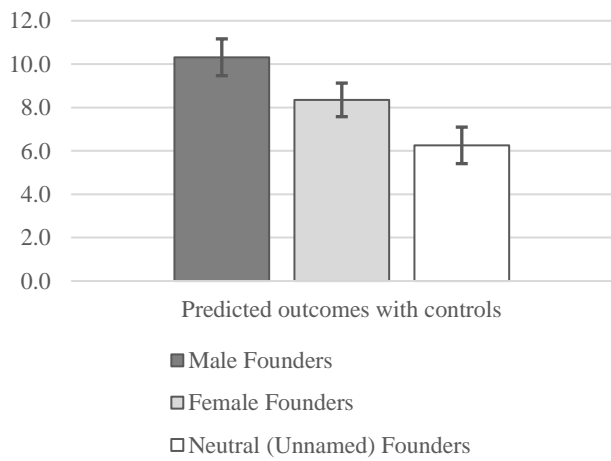
**Fig. 3A. Work Errors**



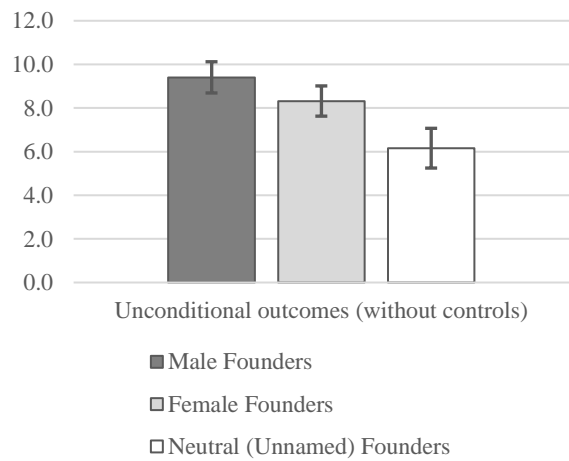
**Fig. 3B. Work Errors (no controls)**



**Fig. 4A. Work Time**



**Fig 4B. Work Time (no controls)**



## **Appendix B:**

### **Study 2, First Experiment**

#### **Questions (in order)**

1. We try to make sure that we pay people fairly for their work. How did we do? (5 pt)
2. Were our instructions clear? (5pt)
3. How interesting was the HIT? (5pt)
4. How difficult was the HIT? (5pt)
5. This is all the work we can presently pay you for . . .

#### **Manipulation & Attention**

6. Do you remember the name of our company?
7. Do you remember the name of the founders?
8. Do you have a more favorable impression of: (female founders, male founders, no opinion)
9. Why?

#### **Mechanisms (7 pt Likert)**

10. Some firms are close to the local community while others are more detached. What is your impression of this company?
11. In some firms, the goal is just to maximize profits. In other firms, they care more about upholding community-focused business practices than profitability. What is your impression of this company?
12. In some firms, the goal is just to maximize profits. In other firms, they care more about care for customers than profitability. What is your impression of this company?
13. In some firms, the goal is just to maximize profits. In other firms, they care more about care for employees than profitability. What is your impression of this company?
14. Some firms achieve success easily. Other firms, achieve success against all odds. What is your impression of this company?
15. Some firms experience difficulties because of the environment. Other firms, experience difficulties because of their own mistakes. What is your impression of this company?
16. What is the probability that this company will enjoy success in the future?
17. How well will this company respond to adversity or difficult conditions in its industry?

#### **Demographics**

18. Age
19. Gender
20. Education
21. Ethnicity
22. Have you ever worked in a startup before?
23. Occupation
24. How many employees in your establishment?
25. If you had any problems please report them here.

## **Appendix C:**

### **Study 3, Second Experiment**

#### **Questions (in order)**

1. This is all the work we can presently pay you for . . .
2. What percent of tech startups like ours do you think earn money in their first year?
3. What do you think is the average lifespan for a startup like ours (in years)?
4. For future reference, what do you think is the right reward for this HIT?
5. We're relatively new to mTurk, was it fair of us to ask if you could do extra work? (Yes/No)
6. Was the HIT harder or easier than you expected? (5pt)

#### **Manipulation & Attention**

7. Do you remember the name of our company?
8. Do you remember the name of the founders?

#### **Demographics**

9. Age
10. Gender
11. Education
12. Ethnicity
13. Have you ever worked in a startup before?
14. Occupation
15. How many employees in your establishment?
16. If you had any problems please report them here: