

## Online Appendix

**Table A1. Robustness Check. Level of Analysis**

	1	2	3	4	5	6	7
	Logit Fixed Effect	Negative Binomial Fixed Effect Recall Count			Ordinary Least Squares Fixed Effect Time-to-Recall		
	VP Quality Female <sup>a</sup>	Class 1 Recalls <sup>b</sup>	Class 2 Recalls <sup>c</sup>	Class 3 Recalls <sup>d</sup>	Class 1 Recalls <sup>b</sup>	Class 2 Recalls <sup>c</sup>	Class 3 Recalls <sup>d</sup>
Ln_sales	-0.04 (1.17)	0.21 (0.35)	0.12 (0.09)	0.10 (0.11)	0.49* (0.24)	0.04 (0.19)	0.08 (0.16)
Ln products	0.42 (0.39)	0.06 (0.16)	-0.07 (0.05)	0.19+ (0.10)	0.11 (0.13)	-0.23* (0.10)	0.17 (0.12)
R&D intensity	0.01 (0.01)	-5.09 (8.63)	-3.76* (1.74)	0.26 (1.61)	-1.07 (0.72)	0.03 (0.17)	-0.61 (1.28)
Recall history	0.03 (0.11)	-0.00 (0.05)	0.10*** (0.02)	0.05+ (0.03)	0.05 (0.07)	0.58** (0.18)	0.10* (0.05)
Tenure	-0.30 (0.40)	-0.01 (0.20)	0.08 (0.06)	0.17 (0.11)	0.05 (0.12)	0.08 (0.10)	0.20+ (0.12)
Board independence	-0.55 (0.34)	0.07 (0.17)	-0.03 (0.06)	-0.07 (0.09)	0.15 (0.11)	0.08 (0.10)	-0.01 (0.11)
CEO-chair separation	0.20 (0.23)	0.02 (0.14)	0.06 (0.04)	-0.02 (0.08)	0.13+ (0.07)	0.05 (0.06)	-0.09 (0.08)
FBR	0.61+ (0.32)	-0.12 (0.18)	0.07 (0.06)	0.27* (0.11)	-0.22* (0.09)	0.20+ (0.10)	0.13 (0.10)
VP Quality Female		0.41 (0.29)	-0.12 (0.10)	-0.17 (0.18)	0.07 (0.08)	-0.14 (0.19)	-0.26 (0.27)
Constant	-5.51** (2.73)	1.36 (4.78)	2.73** (1.04)	-2.22+ (1.16)	0.01 (0.01)	2.26 (1.76)	-0.64 (1.56)
Observations	835	401	817	599	401	817	599
Wald Chi <sup>2</sup> or Pseudo r <sup>2</sup>	18.74	42.68	165.70	80.94	0.13	0.16	0.12

Standard errors in parentheses, + p<0.10, \*p<0.05, \*\*p<0.01, \*\*\*p<0.001. Year indicator variables included not shown.

<sup>a</sup>Firm fixed effects included in this model as indicator variables only for those firms that experienced a change in the VP of Quality Female measure in the 12-years of the study to ensure all 835 observations are included. This ensures that observations are not dropped if the firm never had a VP of quality that was female.

<sup>b</sup>Fixed effects regressions drop observations in which the dependent variable does not change across the panel for a given firm; 434 observations dropped because of firms with no class 1 recalls in time of panel (835-434=401).

<sup>c</sup>18 observations dropped because of firms with no class 2 recalls in time of panel (835-18=817).

<sup>d</sup>236 observations dropped because of firms with no class 3 recalls in time of panel (835-236=599).

**Table A2. Robustness Check. Alternative Female Director Measures. Female Director Observation Frequency**

	Number of Females Directors						Total
	0	1	2	3	4	5	
Frequency of firm-year observations	158	311	249	96	17	4	835
Percentage of firm-year observations	19.0%	37.2%	29.8%	11.5%	2.0%	0.5%	100.0%

Note: Sum of non-zero female director observations is 677=311+249+96+17+4

**Table A3. Robustness Check. Alternative Female Director Measures.  
Female Director Dichotomous**

	1	2	3	4	5	6
	Negative Binomial Fixed Effect Recall Count			Ordinary Least Squares Fixed Effect Time-to-Recall		
	Class 1 Recalls <sup>a</sup>	Class 2 Recalls <sup>b</sup>	Class 3 Recalls <sup>c</sup>	Class 1 Recalls <sup>a</sup>	Class 2 Recalls <sup>b</sup>	Class 3 Recalls <sup>c</sup>
Ln_sales	0.32 (0.35)	-0.01 (0.17)	0.10 (0.11)	-0.00 (0.03)	0.07 (0.14)	0.09 (0.15)
Ln products	0.06 (0.16)	-0.11 (0.11)	0.17+ (0.10)	-0.04 (0.03)	-0.25* (0.11)	0.16 (0.12)
R&D intensity	-7.71 (7.99)	0.01 (0.01)	0.21 (1.65)	0.01 (0.05)	0.03 (0.15)	-0.01 (0.16)
Recall history	0.02 (0.05)	0.14** (0.05)	0.05* (0.03)	0.06* (0.03)	0.21*** (0.06)	0.10* (0.05)
Tenure	-0.01 (0.20)	0.07 (0.11)	0.12 (0.11)	-0.08 (0.05)	0.06 (0.09)	0.18 (0.13)
Board independence	-0.03 (0.16)	-0.02 (0.10)	-0.04 (0.09)	0.04 (0.06)	0.09 (0.09)	0.02 (0.11)
CEO-chair separation	0.06 (0.14)	0.07 (0.08)	-0.03 (0.08)	0.02 (0.05)	0.06 (0.06)	-0.09 (0.08)
Board Size	0.03 (0.08)	0.01 (0.05)	-0.00 (0.05)	-0.05* (0.02)	0.02 (0.04)	-0.01 (0.05)
Female Dichotomous	1.40 (0.85)	0.48+ (0.26)	0.79* (0.39)	-0.43** (0.13)	0.19 (0.22)	0.42 (0.27)
Constant	0.63 (3.69)	0.01 (1.14)	-2.74* (1.17)	0.45 (0.32)	2.02 (1.34)	-1.14 (1.51)
Observations	401	817	599	401	817	599
Wald Chi <sup>2</sup> or Pseudo r <sup>2</sup>	41.23	172.98	78.16	0.13	0.09	0.07

Standard errors in parentheses, + p<0.10, \*p<0.05, \*\*p<0.01, \*\*\*p<0.001. Year indicator variables included not shown.

<sup>a</sup> Fixed effects regressions drop observations in which the dependent variable does not change across the panel for a given firm; 434 observations dropped because of firms with no class 1 recalls in time of panel (835-434=401).

<sup>b</sup> 18 observations dropped because of firms with no class 2 recalls in time of panel (835-18=817).

<sup>c</sup> 236 observations dropped because of firms with no class 3 recalls in time of panel (835-236=599).

**Table A4. Robustness Check. Alternative Female Director Measures.  
Number of Female Directors**

	1	2	3	4	5	6
	Negative Binomial Fixed Effect Recall Count			Ordinary Least Squares Fixed Effect Time-to-Recall		
	Class 1 Recalls <sup>a</sup>	Class 2 Recalls <sup>b</sup>	Class 3 Recalls <sup>c</sup>	Class 1 Recalls <sup>a</sup>	Class 2 Recalls <sup>b</sup>	Class 3 Recalls <sup>c</sup>
Ln_sales	0.26 (0.32)	-0.06 (0.20)	0.08 (0.11)	0.25* (0.12)	0.05 (0.14)	0.09 (0.15)
Ln products	0.07 (0.16)	-0.07 (0.13)	0.17+ (0.10)	0.01 (0.09)	-0.25* (0.11)	0.16 (0.12)
R&D intensity	-4.12 (7.07)	0.01 (0.01)	0.07 (1.68)	0.00 (0.10)	0.02 (0.15)	-0.00 (0.16)
Recall history	0.02 (0.05)	0.04 (0.06)	0.05+ (0.03)	0.11 (0.07)	0.21*** (0.06)	0.11* (0.05)
Tenure	-0.07 (0.21)	0.06 (0.13)	0.16 (0.11)	0.09 (0.10)	0.07 (0.10)	0.18 (0.13)
Board independence	-0.06 (0.17)	0.01 (0.12)	-0.05 (0.09)	-0.05 (0.07)	0.08 (0.09)	0.01 (0.11)
CEO-chair separation	0.06 (0.14)	0.03 (0.09)	-0.03 (0.08)	0.01 (0.06)	0.06 (0.06)	-0.09 (0.08)
Board Size	0.04 (0.08)	0.00 (0.06)	-0.02 (0.05)	-0.03 (0.04)	0.01 (0.04)	-0.01 (0.05)
One female	1.26 (0.79)	0.29 (0.31)	0.81* (0.40)	-0.26 (0.18)	0.19 (0.22)	0.43 (0.28)
Two females	1.02 (0.86)	0.43 (0.37)	1.09* (0.44)	-0.60* (0.24)	0.29 (0.27)	0.43 (0.33)
Three or more females	0.59 (0.98)	0.55 (0.46)	1.25* (0.49)	-0.97*** (0.37)	0.61+ (0.33)	0.53 (0.40)
Constant	-1.10 (3.22)	-0.13 (1.29)	-2.65* (1.24)	-1.01 (0.89)	1.90 (1.37)	-1.08 (1.55)
Observations	401	817	599	401	817	599
Wald Chi <sup>2</sup> or Pseudo r <sup>2</sup>	42.73	178.60	82.87	0.13	0.16	0.13

Standard errors in parentheses, + p<0.10, \*p<0.05, \*\*p<0.01, \*\*\*p<0.001. Year indicator variables included not shown.

<sup>a</sup> Fixed effects regressions drop observations in which the dependent variable does not change across the panel for a given firm; 434 observations dropped because of firms with no class 1 recalls in time of panel (835-434=401).

<sup>b</sup> 18 observations dropped because of firms with no class 2 recalls in time of panel (835-18=817).

<sup>c</sup> 236 observations dropped because of firms with no class 3 recalls in time of panel (835-236=599).