ONLINE SUPPLEMENTAL MATERIALS

APPENDIX A

Table A1

Study Characteristics and Effect Sizes for Experiments Included in the Meta-Analysis

Study	Sample Type	Country of sample	Job	Qualification comparison	Dependent variable	Cohen's d (SE)
Foschi et al. (1995)	Undergraduate students	Canada	Engineer intern	Outstanding vs. Average	Perceived suitability	Qualifications[a]: 1.08[+] (.15)
Heilman et al. (1988)	Undergraduate students	US	Football or tennis photographer	High vs. Unknown ability	Career success rating	Gender[b]: -0.93[*] (.27)
Heilman et al. (2004) Study 3	Employees	US	Employee from a management training program	High vs. Low	Aggregate of three dependent variables[^]	Gender: -.16[*] (.18) Qualifications: .96[+] (.18)
Moore (1984)	Graduate students	US	Supermarket manager	High vs. Low	Performance rating	Gender: -.17[*] (.09) Qualifications: 2.74[+] (.12)
White & White (1994)	Undergraduate students	US	Stockbroker/Football photographer	Demonstrated vs. Unknown ability	Career success rating	Gender: -.18[*] (.17) Qualifications: .61[+] (.12)
Zebrowitz et al. (1991) Study 1	Undergraduate students	US	Director of Center	High vs. Moderate	Hiring recommendations	Gender: -.17[*] (.13) Qualifications: 1.54[+] (.14)
Zebrowitz et al. (1991) Study 2	Undergraduate students	US	Loan officer	High vs. Moderate	Hiring recommendations	Gender: -.52[*] (.13) Qualifications: 2.69[+] (.17)

Note.

[*] Negative coefficients indicate that males were evaluated more favorably than females

[+] Positive coefficients indicate that candidates with higher qualifications (vs. lower qualifications) were evaluated more favorably

[^] Includes overall evaluation of target, feelings about having target as a manager, and recommendation for special career opportunities

[a] The gender effect size could not be computed because of missing statistics.

[b] The qualifications effect size could not be computed because of missing statistics.

STUDIES INCLUDED IN THE META-ANALYTIC REVIEW

Foschi, M., Sigerson, K., & Lembesis, M. 1995. Assessing Job Applicants: The Relative Effects of Gender, Academic Record, and Decision Type. *Small Group Research*, *26*(3), 328–352.

Heilman, M. E., Martell, R. F., & Simon, M. C. 1988. The Vagaries of Sex Bias: Conditions Regulating the Undervaluation, Equivaluation, and Overvaluation of Female Job Applicants. *Organizational Behavior and Human Decision Processes*, *41*(1), 98–110.

Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. 2004. Penalties for Success: Reactions to Women Who Succeed at Male Gender-Typed Tasks. *Journal of Applied Psychology*, *89*(3), 416–427.

Moore, D. P. 1984. Evaluating In-Role and Out-of-Role Performers. *Academy of Management Journal*, *27*(3), 603–618.

White, G. B., & White, M. J. 1994. Overvaluation and Undervaluation of Women Job Applicants: How General Are the Vagaries of Sex Bias? *Journal of Business and Psychology*, *9*(1), 59–68.

Zebrowitz, L. A., Tenenbaum, D. R., & Goldstein, L. H. 1991. The Impact of Job Applicants' Facial Maturity, Gender, and Academic Achievement on Hiring Recommendations. *Journal of Applied Social Psychology*, *21*(7), 525–548.

APPENDIX B

Equations and Parameter Values used in Simulations

Table B1

Parameters and Functions for Simulation 1a –Typical Selection Context

Parameter	Model			
	Olian et al. (1998) bias model	Updated meta bias model	Conservative bias estimate model	No bias model
Total applicant pool per simulation	1,000,000			
Ratio of male to female applicants (p)	.56			
Qualifications rating (q_i)	~N [0, 1]			
Bias effect ($b_{\%}$)	**.04**	**.022**	**.01**	**.00**
Assessment error (e_i)	~N [0, 1]			
Qualifications effect ($q_{\%}$)	**.35**	**.393**	**.405**	**.415**
Evaluation rating	$q_i(\sqrt{q_{\%}}) + 2g_i(\sqrt{b_{\%}}) + e_i(\sqrt{1 - q_{\%} - b_{\%}})$			
Selection protocol	Top-down			
Selection ratio	.05			
Base rate	.50			
SD_y	.40			

Note. **Bold** indicates parameter that was varied in the simulation. Base rate represents the percent of applicants that possesses at least a minimal level of qualifications necessary for job success.

Table B2

Parameters and Functions for Simulation 1b – Range of Hiring Contexts on System Utility

Parameter	Model			
	Olian et al. (1998) bias model	Updated meta bias model	Conservative bias estimate model	No bias model
Total applicant pool per simulation	1,000,000			
Ratio of male to female applicants (p)	.56			
Qualifications rating (q_i)	~N [0, 1]			
Bias effect ($b_{\%}$)	**.04**	**.022**	**.01**	**.00**
Assessment error (e_i)	~N [0, 1]			
Qualifications effect ($q_{\%}$)	**.01, .0625, .25**	**.028, .0805, .268**	**.04 .0925, .28**	**.05, .1025, .29**
Evaluation rating	$q_i(\sqrt{q_{\%}}) + 2g_i(\sqrt{b_{\%}}) + e_i(\sqrt{1 - q_{\%} - b_{\%}})$			
Selection protocol	Top-down			
Selection ratio	**.01, .05, .10, .25, .50, .90**			
Base rate	**.20, .50, .80**			
SD_y	**.40, 50, 60**			

Note. Bold indicates parameter that was varied in the simulation. Base rate represents the percent of applicants that possesses at least a minimal level of qualifications necessary for job success.

Table B3

Parameters and Functions for Simulation 2a – Increasing Female Representation in the Applicant Pool

Parameter	Model			
	Olian et al. (1998) bias model	Updated meta bias model	Conservative bias estimate model	No bias model
Total applicant pool per simulation	1,000,000			
Ratio of male to female applicants (*p*)	**.10, .11, .15, .20, .90**			
Qualifications rating (q_i)	~*N* [0, 1]			
Bias effect ($b_{\%}$)	**.04**	**.022**	**.01**	**.00**
Assessment error (e_i)	~*N* [0, 1]			
Qualifications effect ($q_{\%}$)	**.35**	**.393**	**.405**	**.415**
Evaluation rating	$q_i(\sqrt{q_{\%}}) + 2g_i(\sqrt{b_{\%}}) + e_i(\sqrt{1 - q_{\%} - b_{\%}})$			
Selection protocol	Top-down			
Selection ratio	.05			
Base rate	.50			
SD_y	.40			

Note. Bold indicates parameter that was varied in the simulation. Base rate represents the percent of applicants that possesses at least a minimal level of qualifications necessary for job success.

Table B4

Parameters and Functions for Simulation 2b – Targeted Recruitment

Parameter	Model			
	Olian et al. (1998) bias model	Updated meta bias model	Conservative bias estimate model	No bias model
Total applicant pool per simulation	1,000,000			
Ratio of male to female applicants (*p*)	**.10, .11, .15, .20, .90**			
Qualifications rating (q_i)	~*N* [0, 1] + (-.*25*)*(*gender*)			
Bias effect ($b_{\%}$)	**.04**	**.022**	**.01**	**.00**
Assessment error (e_i)	~*N* [0, 1]			
Qualifications effect ($q_{\%}$)	**.35**	**.393**	**.405**	**.415**
Evaluation rating	$q_i(\sqrt{q_{\%}}) + 2g_i(\sqrt{b_{\%}}) + e_i(\sqrt{1 - q_{\%} - b_{\%}})$			
Selection protocol	Top-down			
Selection ratio	.05			
Base rate	.50			
SD_y	.40			

Note. Bold indicates parameter that was varied in the simulation. Base rate represents the percent of applicants that possesses at least a minimal level of qualifications necessary for job success.

APPENDIX C

Figure 1

Simulated Discriminatory Hiring Outcomes in Models with <1% Gender Bias Effects