

Supporting Information

Data and Methods

We conduct a fixed effects analysis of cross-sectional panel data on workforce composition in 805 establishments to estimate changes in managerial gender composition following the adoption of sexual harassment grievance procedures, training for managers, and training for employees. The data cover 1971 to 2002. Fixed-effect models account, implicitly, for unobserved workplace characteristics that do not vary over time, such as industry, and that may affect managerial composition. We use Huber-White robust standard errors to correct for within-unit serial correlation stemming from the panel nature of the data. Data on establishment-level workforce composition come from the Equal Employment Opportunity Commission. Data on establishment harassment programs, and other management practices and policies, come from our own retrospective survey, administered by the Princeton Survey Research Center. State and industry labor market data come from the Current Population Survey.

EEOC workforce composition data

The Civil Rights Act of 1964, as amended, requires all private employers with at least 100 workers, and employers with 50 workers and government contracts of at least \$50,000, to file annual EEO1 reports detailing the race, ethnicity, and gender of workers in nine broad occupational categories. There are no better establishment-level panel data on the private-sector workforce (1). Excluded employers, such as state and local governments, schools, and colleges, provide different reports. We obtained the data, which are confidential by statute, from the EEOC through an Intergovernmental Personnel Act (IPA) agreement, as have many other researchers*.

Figure 2 in the main text shows the average annual representation of each group in management in the sample for the period analyzed. Because each minority group holds few management jobs in the typical firm but many in some firms, distributions are skewed. To ensure our estimates are not affected by extreme values, we use the log of the odds of each group being in management (2).[†] The dependent variable is measured annually, one year after the independent variables. We therefore estimate the average change in managerial gender composition following program adoption across all subsequent years observed in the dataset.

Ours is the first study we know of to use managerial gender composition to measure the efficacy of sexual harassment programs. We use this indicator because actual rates of workplace harassment are notoriously difficult to measure, and because no longitudinal, cross-employer, data exist that would allow us to assess the effects of programs on actual harassment across workplaces, over time. Workplace rates of harassment are difficult to measure accurately over time, especially in the context of changing employer practices, in part because the introduction of sexual harassment training is often followed by increased recognition, and reporting, of harassment (3, 4). The introduction of sexual harassment grievance procedures is also thought to increase formal complaints. Moreover, research shows that victims may respond to harassment with psychological denial, which causes them to deny to themselves and surveyors that they have experienced harassment – this is more likely to happen in workplaces with high rates of

harassment (5). Thus surveys of harassment may under-estimate its prevalence in the very workplaces where harassment is most common.

Both the Armed Forces and the U.S. Merit Systems Protection Board, which is responsible for federal civil service workers, surveyed their own employees at several points in time between the early eighties and the early nineties (6, 7). These surveys were conducted during the period in which sexual harassment training and grievance procedures were rolled out in the Armed Forces and in federal agencies, and provide interesting suggestive evidence about the efficacy of sexual harassment interventions. But they do not provide the fine-grained, workplace-by-year, data that would permit panel analysis of the effects of interventions on patterns in workplace harassment.

Our novel approach, of looking at how sexual harassment programs affect the representation of white, black, Hispanic, and Asian-American women in management, is driven by several insights from the research on careers, workplaces, and harassment. First, the literature suggests that effective sexual harassment programs may increase the likelihood women will make the transition from non-management to management. In surveys women frequently report that harassment, or retaliation for complaining of harassment, caused them to leave their jobs (5, 7-14). These studies suggest that in workplaces where harassment goes unchecked, women will be more likely to quit before they are eligible for promotion to management. Thus we expect that interventions that reduce the incidence of harassment will increase the count of women in management, as more women non-managers stay for long enough to be considered for promotion. Second, the literature suggests that women managers, like non-managers, face harassment and may also quit when harassment remains unchecked (15). Thus effective sexual harassment measures may also help to retain women already in management, increasing the count of women managers.

Survey data on organizational programs

To learn about workplace sexual harassment programs, we conducted a survey with a stratified random national sample of establishments drawn from the 1999 EEO1 files. To construct the sample we first assembled a dataset comprising all EEO1 reports for the period 1971-1999, interpolating for years of 1974, 1976, and 1977 (missing for all cases -- EEOC is not able to provide data for those years). Establishments enter the dataset when they begin filing EEO1 reports. To ensure that we would be able to follow establishments over time, we chose half of the sample from establishments that had been in the dataset since at least 1980, and half from those that had been in the dataset since at least 1992. To ensure variation by size, we stratified by number of employees, selecting 35% of establishments with fewer than 500 employees in 1999. To represent the U.S. economy we stratified by industry, sampling equally from food, chemicals, computer equipment, transportation equipment, wholesale trade, retail trade, insurance, business services, and health services. Corporate workforce diversity can be influenced by acquisitions, spinoffs, and plant closings, so we sampled establishments (single-unit firms or establishments of multi-unit firms), selecting no more than one per parent firm. In assembling the longitudinal data we followed individual establishments over time through changes in ownership.

In preparation for the survey, we conducted 41 in-person interviews with human resources managers from randomly sampled organizations in four different regions, and twenty pilot phone

interviews. Data from those interviews informed our survey questions but are not included in the analyses reported here.

We contracted with the Princeton Survey Research Center (PSRC) to interview human resources managers, or general managers, at sampled establishments. We began by writing to the human resources director, or general manager, at each establishment. PSRC telephoned to ask for permission to conduct an interview and for the name of the person who could best answer questions about the history of HR practices. In the survey, PSRC asked whether the establishment had ever had each personnel and management policy or program; when it was adopted; and whether and when it was discontinued. PSRC emailed or faxed copies of questions that respondents could not answer, asked respondents to consult records and colleagues, and called back to fill in the blanks. In our in-person pilot interviews, respondents routinely pulled out manuals with copies of policies, complete with adoption and revision dates. The modal respondent had been with the employer for 11 years, and most could answer most questions on the phone.

PSRC completed 833 interviews for a response rate of 67% (calculated with defunct establishments removed from the denominator). This compares favorably with other employer surveys (16-18). We matched survey data for each establishment with annual EEO1 records, creating a dataset with annual establishment-year spells. For the analysis of sexual harassment programs, we excluded cases for which fewer than 5 years of EEO1 data were available and those for which large numbers of survey items were missing. The dataset we analyze here has 805 cases and 18,266 establishment-year observations. We analyze a median of twenty-five years of data per establishment, a minimum of five years, and a maximum of thirty-two.

Data on state unemployment rate, total industry employment, and the demographic composition of both industry and state labor markets come from the Current Population Survey conducted by the Bureau of Labor Statistics. Data on federal contractor status come from EEO1 reports.

The main anti-harassment variables of interest are manager sexual harassment training, employee sexual harassment training, and sexual harassment grievance procedure. To identify which establishments had used manager sexual harassment training, and specify the years they had training in place, we first asked “Has (organization name) ever had a sexual harassment training program that is designed especially for managers?” We then asked when the organization first had the program, if it still existed, and if not, when it was discontinued. We followed with questions about harassment training for “all employees” and sexual harassment grievance procedures.

We theorize that the effects of these programs will be moderated by the share of management jobs held by women. In Table S3, below, we include that proportion of women managers. In tables S4 to S6, we include an interaction term for the each of the program variables, in turn, with the second, third, and fourth quartiles of the percent of women managers. Workplaces in the first quartile have between zero and 6.7% women in management, those in the second quartile have between 6.7% and 16.7%, those in the third quartile between 16.7% and 37.5%, and those in the fourth quartile have between 37.5% and 100% women in management.

In the models, we include a series of control variables to capture variance from workplace policies and programs; the legal environment; and the organizational, state, and industry labor markets. All measures vary annually. To measure changes in other workplace management policies and programs we use survey data. We control for the presence of “general” harassment prevention programs, which typically cover other forms of harassment than sexual harassment, including racial, religious, disability, and age-based harassment. We include measures for general harassment training, for managers and employees, and general harassment grievance procedures. “Count of formal HR policies” includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal job posting; and grievance procedures. Count of work-life programs includes paid maternity leave, paid paternity leave, policy allowing flexible work hours, and top management support for work-family balance (as assessed by respondents). We control for a number of diversity initiatives that have previously shown effects on managerial gender composition: diversity taskforce, diversity manager, mentoring program, and diversity training. We control for the presence of an HR department and a legal department – both have been linked to efforts to comply with equal-opportunity laws and thus are expected to affect workforce gender diversity.

We measure enforcement of anti-discrimination laws with survey variables capturing whether the establishment was sued under Title VII of the Civil Rights Act of 1964 and whether it experienced an affirmative action compliance review (only federal contractors are subject to these reviews). Each is coded 1 from the year of the firm’s first enforcement experience. Because contractors covered by presidential affirmative-action edicts receive special scrutiny from the Office of Federal Contract Compliance Programs in the Department of Labor, we include a binary variable based on the EEO1 reports indicating whether the employer is a federal contractor. We use the industry’s proportion of government contractors, based on EEO1 data, to capture demand for underrepresented workers in sectors subject to presidential affirmative-action edicts.

We use a number of variables derived from the EEO1 dataset to control for features of the workplace labor market. We use the proportion of management jobs in the workplace to assess changes in the managerial ratio, and total employees to get at workforce expansion and contraction. Two variables for top management team diversity come from our survey -- percent of African-Americans in the establishment’s top 10 positions and percent of women. We asked about these numbers at 10-year intervals and interpolated for intervening years. The pool of workers from the focal category (white, black, Hispanic, or Asian-American women) available for promotion to management is measured with their proportion in the core job – the biggest non-managerial job category at the workplace. A binary variable, “no managers from focal group,” measures whether the workplace has any managers who are white, black, Hispanic, or Asian-American women, depending on the model. Reported results are not sensitive to the exclusion of this variable.

To capture features of the establishment’s external labor market we use data from the Current Population Survey. We use the proportion of white, black, and Hispanic women in the industry (2-digit Standard Industrial Classification) labor force and in the state labor force. Industry employment variables are logged. We do not include a variable for Asian-Americans because the Bureau of Labor Statistics reported separate figures for Asian-Americans for only part of the

period. To investigate model sensitivity to the exclusion of race/ethnic group data we ran models without labor force data for any group. Results are robust. To capture industry expansion and contraction we include total industry employment. To capture state labor market conditions we include the state's unemployment rate.

Table S1 presents variable definitions, data sources, and univariate statistics based on all organization-year spells. We imputed missing adoption years for all program variables. Missing dates were rare. For sexual harassment grievance procedures, training for managers, and training for employees, between 3 and 5% of cases were missing data on the date of program adoption. Results are robust to exclusion of cases for which we imputed adoption dates for these three programs.

Continued

Table S1

Descriptive statistics of variables in the analysis of sexual harassment programs and managerial gender composition

	Mean	Std. Dev.	Min	Max	Data Source	Variable Type
Proportion of group among managers:						
White women	0.219	0.212	0	1	EEO-1	Continuous
Black women	0.013	0.040	0	0.667	EEO-1	Continuous
Hispanic women	0.005	0.021	0	0.500	EEO-1	Continuous
Asian-American women	0.004	0.018	0	0.500	EEO-1	Continuous
Manager sexual harassment training	0.322	0.467	0	1	Survey	Binary
Employee sexual harassment training	0.224	0.417	0	1	Survey	Binary
Sexual harassment grievance procedure	0.551	0.497	0	1	Survey	Binary
Manager general harassment training	0.196	0.397	0	1	Survey	Binary
Employee general harassment training	0.131	0.337	0	1	Survey	Binary
General harassment grievance procedure	0.448	0.497	0	1	Survey	Binary
Count of formal HR policies ¹	4.065	2.376	0	8	Survey	Continuous
Count of work-life programs ²	0.904	0.978	0	4	Survey	Continuous
Diversity taskforce	0.048	0.213	0	1	Survey	Binary
Diversity manager	0.058	0.234	0	1	Survey	Binary
Mentoring program	0.036	0.185	0	1	Survey	Binary
Diversity training	0.089	0.285	0	1	Survey	Binary
HR department	0.822	0.383	0	1	Survey	Binary
Legal department	0.282	0.450	0	1	Survey	Binary
Title VII lawsuit	0.339	0.473	0	1	Survey	Binary
Affirmative action compliance review	0.150	0.357	0	1	Survey	Binary
Government contractor	0.485	0.500	0	1	EEO-1	Binary
Proportion government contractors in industry	0.488	0.226	0.061	0.821	EEO-1	Continuous
Proportion of managerial jobs in establishment	0.124	0.089	0.002	0.789	EEO-1	Continuous
Number of employees	727	905	10	0	EEO-1	Continuous
Percent African Americans in top management ³	0.033	0.098	0	1	Survey	Continuous
Percent women in top management ³	0.162	0.234	0	1	Survey	Continuous
No white women managers	0.123	0.328	0	1	EEO-1	Binary
No black women managers	0.712	0.453	0	1	EEO-1	Binary
No Hispanic managers	0.816	0.387	0	1	EEO-1	Binary
No Asian-American managers	0.842	0.364	0	1	EEO-1	Binary
Proportion of group in core job						
White women	0.387	0.320	0	1	EEO-1	Continuous
Black women	0.061	0.113	0	1	EEO-1	Continuous
Hispanic women	0.031	0.082	0	0.801	EEO-1	Continuous
Asian-American women	0.016	0.045	0	0.560	EEO-1	Continuous
Proportion of group in industry workforce						
White women	0.326	0.146	0.103	0.624	EEO-1	Continuous
Black women	0.042	0.025	0.004	0.119	EEO-1	Continuous
Hispanic women	0.043	0.022	0	0.141	EEO-1	Continuous
Proportion of group in state labor force						
White women	0.353	0.063	0.093	0.496	EEO-1	Continuous
Black women	0.048	0.034	0.004	0.201	EEO-1	Continuous
Hispanic women	0.037	0.046	0.001	0.249	EEO-1	Continuous
Industry employment in 000s	3.738	2.773	0.996	11.458	CPS	Continuous
State unemployment rate	6.150	2.030	2	18	BLS	Continuous
Time trend	18.426	8.355	1	31	EEO-1	Continuous

N=18,266 Organization-years

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade systems; internal posting of jobs; and grievance procedures.

² Includes paid maternity leave, unpaid maternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

In Table S2 we present a correlation matrix for all variables included in the analysis, based on the establishment-year spells used in the analysis. In the matrix, the highest positive correlations are marked in the darkest green and the highest negative correlations are marked in the darkest red. The strongest pattern of correlations occurs within the first 18 variables listed, which are the interactions -- sexual harassment grievance procedure with the four quartiles of women managers, manager training with the four quartiles, and employee training with the four quartiles. Thus in the analysis we include these interactions in three separate models. As a test for the effect of high correlations on our results, we ran all four groups of models reported below excluding, sequentially, each variable with a correlation above 0.5. We also ran all four models excluding all variable pairs with correlations greater than 0.5. Results were robust for variables not excluded from a given model.

Continued

Data Sharing Plan

The data come from three sources. The authors' survey data, and external labor market data from the Current Population Survey, are available to researchers through the Inter-university Consortium for Political and Social Research (ICPSR) program in replication datasets. The authors do not have the authority to share data from the Equal Employment Opportunity Commission's (EEOC) annual EEO1 census of private sector employers, but the EEOC makes those data available directly to researchers through its Intergovernmental Personnel Agreement program. We will provide the key for matching establishments with the EEO1 data to researchers with access to the EEO1 data.

Method

We use pooled cross-sectional time-series models (Stata's `xtreg, fe`), with fixed effects for establishments (19) to account for unmeasured, time-invariant characteristics that might affect managerial composition. The fixed effects strengthen our confidence that organizations that adopted sexual harassment programs did not have stable unobserved preferences regarding managerial gender composition – for or against. To capture environmental changes that are not captured by variables in the models, we include a time trend, and we interact that time trend by both state and (2-digit) industry. The establishment fixed effects help to deal with non-constant variance of the errors (heteroskedasticity) stemming from the cross-sectional aspect of the pooled data. We also use Huber-White robust standard errors to handle within-unit serial correlation.

Because fixed-effects models estimate variation within the organization, they capture change over time. For example, in the models for white women, the variable “number of employees” captures the effect of change in employment on the share of white women in management. Variables that do not change over time, such as industry and state, are accounted for by the fixed effects.

We lag the outcome by one year with the expectation that harassment programs will begin to show effects in the year after adoption. Vaisey and Miles urge caution in using fixed-effects models with lags, suggesting that models may be sensitive to the choice of lags (20). But we use binary, not continuous, treatments and include a large number of panel waves before and after the treatment. Pre- and post-treatment outcomes are averaged over many waves, which limits sensitivity to the particular choice of lag.

Findings

All estimates shown in the main text are derived from the models presented in tables S3, S4, S5, and S6. Here we discuss these models in more detail.

In tables S3 through S6, a significant positive coefficient indicates that in the years following the adoption of a given reform, the group's share of management jobs increases. The average treatment period (years following adoption) is 14 years for sexual harassment grievance procedure, 9 years for sexual harassment training for managers, and 8 years for training for employees. Coefficients reflect the average change in the log odds of a group being in management, following program adoption, across the treatment period. Exponentiating the

coefficients $[\exp(\beta) - 1] * 100$ provides estimates for the average percent change in the odds of a group being in management. Given the coefficients' small absolute values, the percentage change can be calculated roughly as $\beta * 100$.

Continued

Table S3: Female managers following harassment program adoption

	White women	Black women	Hispanic women	Asian-American women
Sexual harassment grievance procedure	-0.002 (0.028)	-0.046 (0.030)	-0.033 (0.026)	-0.060* (0.026)
Manager sexual harassment training	0.063* (0.026)	0.055* (0.023)	0.021 (0.024)	0.048* (0.020)
Employee sexual harassment training	-0.054* (0.023)	-0.020 (0.024)	0.013 (0.035)	0.014 (0.025)
Proportion of women managers	3.079*** (0.107)	0.191 (0.109)	-0.180 (0.116)	-0.197 (0.099)
Manager general harassment training	-0.051 (0.027)	-0.045 (0.034)	-0.031 (0.029)	-0.032 (0.026)
Employee general harassment training	0.004 (0.031)	0.017 (0.037)	-0.005 (0.038)	-0.022 (0.031)
General harassment grievance procedure	-0.007 (0.033)	0.021 (0.032)	-0.010 (0.027)	-0.012 (0.023)
Count of formal HR policies ¹	-0.001 (0.006)	-0.007 (0.006)	-0.001 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.007 (0.016)	0.025* (0.012)	0.033* (0.013)	0.043** (0.015)
Diversity taskforce	0.104* (0.041)	0.219*** (0.054)	0.128* (0.054)	0.188** (0.056)
Diversity manager	0.073 (0.053)	0.127* (0.055)	0.162** (0.055)	0.115* (0.048)
Mentoring program	0.037 (0.065)	0.176* (0.070)	0.189* (0.075)	0.195** (0.066)
Diversity training	-0.026 (0.032)	-0.057 (0.052)	0.043 (0.044)	0.023 (0.048)
HR department	-0.095 (0.050)	-0.074 (0.037)	-0.105*** (0.027)	-0.100*** (0.027)
Legal department	0.118* (0.050)	0.002 (0.045)	0.031 (0.043)	0.037 (0.037)
Title VII lawsuit	0.053 (0.027)	0.037 (0.026)	0.004 (0.027)	-0.007 (0.021)
Affirmative action compliance review	0.054 (0.031)	0.021 (0.026)	0.043 (0.033)	0.067* (0.032)
Government contractor	0.009 (0.046)	-0.028 (0.038)	-0.027 (0.035)	-0.013 (0.037)
Proportion government contractors in industry	-0.480* (0.188)	-0.215 (0.187)	0.088 (0.144)	-0.145 (0.126)
Proportion of managerial jobs in establishment	-0.101 (0.261)	-4.318*** (0.449)	-4.675*** (0.411)	-4.586*** (0.448)
Employees (log)	-0.077** (0.026)	-0.645*** (0.033)	-0.701*** (0.041)	-0.713*** (0.042)
Percent minorities in top management ³	-0.211 (0.408)	0.640 (0.346)	-0.238 (0.308)	-0.326 (0.354)
Percent women in top management ³	-0.065 (0.172)	0.126 (0.227)	0.012 (0.235)	-0.002 (0.206)
Proportion of focal group in core job	0.179* (0.069)	0.121 (0.175)	0.624** (0.192)	2.026** (0.668)

Table S3 Continued

No managers from focal group	-0.275*** (0.044)	-0.653*** (0.022)	-0.536*** (0.026)	-0.585*** (0.039)
Proportion of group in industry workforce (log)				
White women	0.174* (0.074)	-0.024 (0.063)	0.008 (0.062)	-0.038 (0.063)
Black women	0.017 (0.026)	-0.033 (0.020)	-0.022 (0.018)	-0.020 (0.016)
Hispanic Women	0.024 (0.021)	0.011 (0.015)	-0.012 (0.010)	0.001 (0.011)
Proportion of group in state labor force				
White women	1.911*** (0.364)	-0.103 (0.317)	-0.919* (0.378)	-0.691 (0.355)
Black women	1.518* (0.612)	-0.193 (0.686)	-1.693*** (0.464)	-1.399** (0.427)
Hispanic Women	-1.248 (0.911)	1.322 (1.078)	0.519 (0.987)	1.753* (0.825)
Industry employment in 000s	0.014 (0.021)	-0.009 (0.029)	0.001 (0.017)	0.011 (0.014)
State unemployment rate	-0.003 (0.003)	-0.007* (0.003)	-0.005 (0.003)	-0.003 (0.003)
Time trend	0.019** (0.007)	-0.010 (0.006)	-0.007 (0.006)	-0.010 (0.006)
Constant	-2.288*** (0.241)	1.027*** (0.270)	1.283*** (0.272)	1.447*** (0.284)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.896	0.859	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours, and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

In Table S3 we report the models on which Figure 3 in the main text are based. These models include measures for the presence of sexual harassment programs, without their interaction with managerial gender composition. Sexual harassment grievance procedure is followed by a significant decrease in Asian-American women. Manager sexual harassment training is followed by significant increases in white, black, and Asian-American women in management. Employee

training is followed by a significant decrease in white women. In this model, we include a separate variable for the proportion of women managers in the establishment. While an increase in total women managers is followed by a significant increase in white women in management, no significant changes are observed for black and Hispanic women, and Asian-American women see declines. This is notable because in tables S4 through S6, the interactions between higher quartiles of women managers and the three harassment programs are positive, indicating that women managers positively moderate program effects for minority women. Absent these programs, increases in total women in management are followed by increases in the share of white, but not minority women, in management.

We control for general harassment procedures and training, which are designed to address harassment based on race, religion, disability, age, and other characteristics. We know of no other study that has examined the effects of these programs on white or minority women. In our analysis, none of those programs shows a significant effect for any group of women. Those results are robust to the exclusion of the sexual harassment program variables. Other controls in the models perform as previous studies would lead us to predict. The formalization of HR policies does not appear to remedy gender discrimination. The negative effects of HR departments on Hispanic and Asian-American women, together with the null effects of formal HR policies, are consistent with research showing that personnel formalization can increase bias. Diversity training does not help any group of women make inroads into management. But work-life programs, diversity taskforces, diversity managers, and mentoring programs show positive effects. Establishment employment shows significant negative effects on all four groups of women, consistent with the idea, from job queue theory, that growing firms are attractive to prospective workers and that employers who have the choice tend to favor men (21, 22). The proportion of managerial jobs in the establishment shows significant negative effects on black, Hispanic, and Asian-American women, consistent with the idea, also from job queue theory, that employers with higher managerial ratios will attract applicants from the front of the labor queue seeking promotion opportunities.

Continued

Table S4: Grievance Procedure by quartiles of women in management

	White women	Black women	Hispanic women	Asian-American women
Sexual harassment grievance procedure	0.051 (0.047)	-0.139** (0.047)	-0.101* (0.043)	-0.099* (0.043)
× 2nd quartile of women in management	-0.028 (0.039)	0.098** (0.035)	0.050 (0.032)	0.040 (0.030)
Linear combination	0.023 (0.032)	-0.041 (0.033)	-0.051 (0.029)	-0.059* (0.025)
× 3rd quartile of women in management	-0.064 (0.050)	0.097 (0.055)	0.040 (0.053)	0.016 (0.052)
Linear combination	0.013 (0.044)	-0.042 (0.043)	-0.061 (0.032)	-0.084* (0.034)
× 4th quartile of women in management	-0.125* (0.061)	0.197*** (0.054)	0.198** (0.058)	0.111* (0.047)
Linear combination	-0.074 (0.039)	0.058 (0.043)	0.097* (0.046)	0.012 (0.052)
Manager sexual harassment training	0.056 (0.030)	0.050* (0.022)	0.018 (0.024)	0.047* (0.019)
Employee sexual harassment training	-0.055* (0.027)	-0.020 (0.024)	0.015 (0.034)	0.014 (0.025)
Manager general harassment training	-0.049 (0.028)	-0.042 (0.033)	-0.029 (0.030)	-0.031 (0.026)
Employee general harassment training	-0.011 (0.035)	0.012 (0.036)	-0.008 (0.038)	-0.024 (0.031)
General harassment procedure	-0.004 (0.033)	0.018 (0.032)	-0.012 (0.028)	-0.013 (0.023)
2nd quartile of women in management	0.454*** (0.030)	-0.107*** (0.030)	-0.112*** (0.021)	-0.119*** (0.021)
3rd quartile of women in management	0.882*** (0.041)	-0.037 (0.044)	-0.075 (0.038)	-0.058 (0.036)
4th quartile of women in management	1.316*** (0.048)	-0.012 (0.043)	-0.163*** (0.041)	-0.109* (0.041)
Count of formal HR policies ¹	0.001 (0.007)	-0.007 (0.006)	-0.002 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.011 (0.016)	0.024* (0.011)	0.031* (0.013)	0.042** (0.015)
Diversity taskforce	0.114** (0.042)	0.215*** (0.053)	0.122* (0.053)	0.184** (0.056)
Diversity manager	0.076 (0.055)	0.120* (0.055)	0.156** (0.055)	0.109* (0.046)
Mentoring program	0.024 (0.057)	0.173* (0.069)	0.189* (0.073)	0.194** (0.065)
Diversity training	-0.015 (0.035)	-0.061 (0.051)	0.039 (0.043)	0.021 (0.047)
HR department	-0.092 (0.054)	-0.071 (0.038)	-0.099*** (0.028)	-0.097*** (0.027)
Legal department	0.113* (0.051)	0.002 (0.045)	0.030 (0.043)	0.034 (0.037)
Title VII lawsuit	0.055 (0.031)	0.036 (0.026)	0.003 (0.027)	-0.009 (0.021)
Affirmative action compliance review	0.074* (0.030)	0.020 (0.026)	0.041 (0.033)	0.062* (0.030)

Table S4 continued

Government contractor	0.008 (0.047)	-0.029 (0.039)	-0.026 (0.035)	-0.013 (0.037)
Proportion government contractors in industry	-0.486* (0.206)	-0.238 (0.184)	0.079 (0.134)	-0.146 (0.120)
Proportion of managerial jobs in establishment	0.166 (0.276)	-4.334*** (0.447)	-4.710*** (0.413)	-4.636*** (0.446)
Employees (log)	-0.065* (0.027)	-0.644*** (0.034)	-0.700*** (0.042)	-0.714*** (0.042)
Percent minorities in top management ³	-0.252 (0.425)	0.615 (0.332)	-0.255 (0.295)	-0.335 (0.339)
Percent women in top management ³	0.042 (0.199)	0.087 (0.219)	-0.024 (0.226)	-0.026 (0.205)
Proportion of focal group in core job	0.199** (0.071)	0.112 (0.175)	0.613** (0.193)	1.963** (0.666)
No managers from focal group	-0.268*** (0.039)	-0.653*** (0.022)	-0.527*** (0.025)	-0.580*** (0.038)
Proportion of group in industry workforce (log)				
White women	0.143 (0.074)	-0.009 (0.063)	0.018 (0.060)	-0.026 (0.062)
Black women	0.027 (0.026)	-0.035 (0.019)	-0.027 (0.017)	-0.022 (0.015)
Hispanic Women	0.031 (0.023)	0.009 (0.015)	-0.016 (0.010)	-0.001 (0.011)
Proportion of group in state labor force				
White women	1.629*** (0.440)	0.104 (0.342)	-0.726* (0.355)	-0.538 (0.350)
Black women	1.337 (0.671)	-0.074 (0.715)	-1.576*** (0.440)	-1.277** (0.421)
Hispanic Women	-1.462 (0.905)	1.312 (1.103)	0.531 (0.969)	1.796* (0.824)
Industry employment in 000s	-0.005 (0.020)	-0.012 (0.029)	-0.001 (0.016)	0.012 (0.013)
State unemployment rate	-0.003 (0.004)	-0.007 (0.003)	-0.004 (0.003)	-0.002 (0.003)
Time trend	0.018* (0.008)	-0.008 (0.007)	-0.006 (0.005)	-0.011 (0.006)
Constant	-2.257*** (0.294)	1.041*** (0.264)	1.235*** (0.262)	1.417*** (0.288)
Workplace fixed effects omitted				
Interaction of time and industry omitted				
Interaction of time and state omitted				
Observations	18,266	18,266	18,266	18,260
R-squared	0.890	0.860	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

In tables S4, S5, and S6 we report coefficients for the three sexual harassment programs interacted with the second, third, and fourth quartiles of total women in management (based on the percent of women managers). The non-interacted program coefficients represent the effect of the program among establishments in the first quartile. The interacted coefficients represent the effect of having the program and being in a particular quartile. In the row below each interaction coefficient, we report the linear combination of the program + (program \times female-manager-quartile interaction) terms. These rows capture the effect of each program in the relevant quartile, as calculated with the LINCOM procedure in STATA. In the main text, Figures 4 through 6 report these linear combinations and 95 percent confidence intervals.

We posit that programs will have poorer effects on white women in management, among workplaces in the top quartile of total women managers. If large numbers of firms in this quartile were near the maximum value (of 100% women managers), that effect could result from proximity to the maximum value. Instead, as noted, the fourth quartile starts at 37.5% women managers -- most organizations in the fourth quartile have well below the threshold of 100% women managers. Only .37% of observations have 100% women managers.

In S4, we report interactions for sexual harassment grievance procedure. Coefficients for the non-interacted variable, sexual harassment grievance procedure, indicate that for establishments in the first quartile of women managers, grievance procedures are followed by reductions in all three groups of minority women. The second row shows the interaction effects for the second quartile of women managers, and the third row shows the linear combination of grievance procedure and its interaction with the second quartile of women managers. The linear combinations for the second and third quartile interactions show that the negative effect of grievance procedures continues into these quartiles only for Asian-American women. All fourth-quartile interactions generate significant coefficients. That is, establishments in this quartile see significantly different effects of grievance procedures compared to those in the first quartile. The linear combinations, however, show only one significant ($p < .05$) effect; a positive effect for Hispanic women. Thus among establishments highest on total women managers, only for Hispanic women do grievance procedures make a significant difference. The negative linear combination coefficient for white women is significant at $p < .10$.

In sum, for white women, grievance procedures do not appear to help, and there is weak evidence of adverse effects in establishments with the most women managers -- consistent with the group threat thesis. In establishments with few women managers, grievance procedures are followed by decreases in all three groups of minority women management. That effect disappears as the share of women in management grows: for black and Hispanic women it disappears in establishments in the second quartile of women managers and for Asian-American women it disappears in the fourth quartile. It turns positive for Hispanic women in establishments in the top quartile. This is consistent with our contention, based on findings from survey research on harassment, that women who use grievance procedures often face retaliation and lose their jobs or quit. In establishments with more women in management, it appears, these adverse effects decline and may even reverse for minority women.

Table S5: Manager training by quartiles of women in management

	White women	Black women	Hispanic women	Asian-American women
Manager sexual harassment training	0.152*	0.007	-0.026	0.011
	(0.062)	(0.038)	(0.039)	(0.032)
× 2nd quartile of women in management	-0.064	0.014	0.010	-0.006
	(0.043)	(0.039)	(0.026)	(0.027)
Linear combination	0.088*	0.021	-0.015	0.005
	(0.039)	(0.032)	(0.035)	(0.023)
× 3rd quartile of women in management	-0.087	0.024	0.013	0.019
	(0.076)	(0.045)	(0.042)	(0.038)
Linear combination	0.065	0.032	-0.013	0.030
	(0.035)	(0.039)	(0.026)	(0.025)
× 4th quartile of women in management	-0.221**	0.148**	0.165*	0.137**
	(0.068)	(0.050)	(0.064)	(0.042)
Linear combination	-0.069	0.155***	0.140**	0.149**
	(0.046)	(0.039)	(0.049)	(0.032)
Employee sexual harassment training	-0.056*	-0.019	0.015	0.015
	(0.027)	(0.024)	(0.034)	(0.025)
Sexual harassment grievance procedure	0.003	-0.047	-0.035	-0.062*
	(0.031)	(0.032)	(0.027)	(0.027)
Manager general harassment training	-0.052	-0.041	-0.027	-0.029
	(0.029)	(0.033)	(0.029)	(0.026)
Employee general harassment training	-0.012	0.013	-0.007	-0.024
	(0.035)	(0.037)	(0.038)	(0.030)
General harassment procedure	-0.005	0.021	-0.010	-0.012
	(0.033)	(0.032)	(0.028)	(0.023)
2nd quartile of women in management	0.457***	-0.064*	-0.092***	-0.096***
	(0.030)	(0.026)	(0.013)	(0.015)
3rd quartile of women in management	0.869***	0.006	-0.060*	-0.056**
	(0.040)	(0.030)	(0.025)	(0.021)
4th quartile of women in management	1.312***	0.050	-0.104*	-0.091*
	(0.043)	(0.041)	(0.041)	(0.042)
Count of formal HR policies ¹	0.001	-0.007	-0.001	-0.006
	(0.007)	(0.006)	(0.006)	(0.007)
Count of work-life programs ²	0.011	0.024*	0.031*	0.042**
	(0.016)	(0.012)	(0.013)	(0.015)
Diversity taskforce	0.122**	0.209***	0.117*	0.178**
	(0.042)	(0.054)	(0.054)	(0.055)
Diversity manager	0.076	0.122*	0.158**	0.110*
	(0.054)	(0.056)	(0.055)	(0.048)
Mentoring program	0.023	0.175*	0.190*	0.195**
	(0.059)	(0.070)	(0.073)	(0.064)
Diversity training	-0.014	-0.059	0.041	0.021
	(0.035)	(0.051)	(0.043)	(0.047)
HR department	-0.093	-0.073	-0.102***	-0.098***
	(0.055)	(0.038)	(0.027)	(0.027)
Legal department	0.115*	-0.000	0.028	0.033
	(0.049)	(0.045)	(0.044)	(0.037)
Title VII lawsuit	0.052	0.038	0.005	-0.007
	(0.032)	(0.026)	(0.027)	(0.021)
Affirmative action compliance review	0.073*	0.021	0.042	0.065*
	(0.030)	(0.026)	(0.033)	(0.031)

Table S5 continued

Government contractor	0.009 (0.047)	-0.029 (0.039)	-0.027 (0.035)	-0.014 (0.037)
Proportion government contractors in industry	-0.463* (0.204)	-0.245 (0.183)	0.065 (0.131)	-0.161 (0.124)
Proportion of managerial jobs in establishment	0.189 (0.284)	-4.349*** (0.443)	-4.730*** (0.410)	-4.650*** (0.445)
Employees (log)	-0.063* (0.027)	-0.645*** (0.034)	-0.702*** (0.042)	-0.715*** (0.042)
Percent minorities in top management ³	-0.274 (0.425)	0.654 (0.334)	-0.216 (0.302)	-0.310 (0.343)
Percent women in top management ³	0.056 (0.198)	0.098 (0.222)	-0.017 (0.233)	-0.028 (0.209)
Proportion of focal group in core job	0.195** (0.072)	0.116 (0.171)	0.626** (0.190)	1.946** (0.678)
No managers from focal group	-0.269*** (0.037)	-0.654*** (0.022)	-0.531*** (0.026)	-0.578*** (0.037)
Proportion of group in industry workforce (log)				
White women	0.164* (0.074)	-0.034 (0.065)	-0.003 (0.062)	-0.046 (0.062)
Black women	0.029 (0.026)	-0.036 (0.019)	-0.026 (0.017)	-0.023 (0.015)
Hispanic Women	0.032 (0.023)	0.009 (0.015)	-0.015 (0.011)	-0.002 (0.011)
Proportion of group in state labor force				
White women	1.576*** (0.434)	0.081 (0.350)	-0.733* (0.358)	-0.506 (0.361)
Black women	1.289 (0.683)	-0.034 (0.712)	-1.535** (0.451)	-1.231** (0.431)
Hispanic Women	-1.522 (0.900)	1.393 (1.115)	0.637 (0.969)	1.873* (0.834)
Industry employment in 000s	-0.004 (0.021)	-0.012 (0.030)	-0.000 (0.016)	0.011 (0.013)
State unemployment rate	-0.003 (0.004)	-0.007* (0.003)	-0.004 (0.003)	-0.002 (0.003)
Time trend	0.019* (0.008)	-0.010 (0.006)	-0.007 (0.005)	-0.011 (0.006)
Constant	-2.139*** (0.291)	0.994*** (0.277)	1.162*** (0.273)	1.290*** (0.282)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.890	0.860	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Table S5 reports models parallel to those in Table S4, but for manager sexual harassment training. For establishments in the first and second quartiles, manager training produces positive effects for white women. For those in the third quartile, the effect on white women is significant at $p < .10$. In the fourth quartile, the interaction term for white women is significant and negative, turning the effect of the program to zero (as indicated by the linear combination). For all three groups of minority women, however, the linear combinations for the fourth quartile are significant and positive. This pattern is consistent with three of our predictions. First, our prediction that manager training will reduce harassment and thereby increase women in management. Second, our prediction that in workplaces with particularly large numbers of women in management, for white women in particular, training may catalyze sentiments of group threat and lead to backlash, reducing the positive effect of training. Third, our prediction that for minority women, manager training will have more positive effects in workplaces with more women in management.

Table S6 reports parallel models for employee sexual harassment training. There is only one significant linear combination, showing a negative effect of employee training on white women among establishments in the fourth quartile of women managers. This is consistent with our expectation that group threat causes harassment programs to backfire for white women. The general pattern of null findings for employee training is consistent with predictions based on laboratory studies showing that this type of training has at best moderate positive effects on trainee knowledge about harassment but that it may exacerbate men's gender role conflict and measured propensity to harass. On average then, employee training has no effect for minorities and a negative effect for white women in the workplaces with the most women managers.

Continued

Table S6: Employee training by quartiles of women in management

	White women	Black women	Hispanic women	Asian-American women
Employee sexual harassment training	0.037 (0.070)	-0.046 (0.042)	-0.010 (0.054)	-0.006 (0.050)
× 2nd quartile of women in management	-0.076 (0.050)	0.052 (0.035)	0.018 (0.033)	0.012 (0.037)
Linear combination	-0.039 (0.041)	0.006 (0.033)	0.008 (0.028)	0.005 (0.025)
× 3rd quartile of women in management	-0.094 (0.078)	0.031 (0.048)	0.022 (0.049)	0.008 (0.047)
Linear combination	-0.058 (0.029)	-0.015 (0.046)	0.012 (0.044)	0.002 (0.033)
× 4th quartile of women in management	-0.152 (0.083)	0.004 (0.068)	0.040 (0.064)	0.050 (0.060)
Linear combination	-0.115* (0.045)	-0.042 (0.046)	0.030 (0.050)	0.044 (0.049)
Manager sexual harassment training	0.051 (0.030)	0.056* (0.022)	0.024 (0.024)	0.051* (0.019)
Sexual harassment grievance procedure	-0.001 (0.031)	-0.043 (0.031)	-0.032 (0.026)	-0.059* (0.026)
Manager general harassment training	-0.050 (0.028)	-0.045 (0.033)	-0.031 (0.029)	-0.032 (0.026)
Employee general harassment training	-0.013 (0.036)	0.016 (0.037)	-0.005 (0.038)	-0.023 (0.031)
General harassment policy	-0.004 (0.034)	0.020 (0.032)	-0.011 (0.027)	-0.012 (0.023)
2nd quartile of women in management	0.456*** (0.027)	-0.073** (0.024)	-0.094*** (0.015)	-0.102*** (0.017)
3rd quartile of women in management	0.868*** (0.035)	0.001 (0.026)	-0.068** (0.023)	-0.057** (0.020)
4th quartile of women in management	1.278*** (0.039)	0.098* (0.043)	-0.060 (0.042)	-0.059 (0.041)
Count of formal HR policies ¹	0.000 (0.007)	-0.007 (0.006)	-0.001 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.009 (0.016)	0.025* (0.011)	0.032* (0.013)	0.042** (0.015)
Diversity taskforce	0.116** (0.042)	0.218*** (0.054)	0.124* (0.053)	0.183** (0.055)
Diversity manager	0.077 (0.055)	0.120* (0.055)	0.156** (0.055)	0.109* (0.047)
Mentoring program	0.025 (0.056)	0.174* (0.070)	0.189* (0.074)	0.194** (0.065)
Diversity training	-0.014 (0.035)	-0.056 (0.051)	0.043 (0.043)	0.023 (0.047)
HR department	-0.089 (0.055)	-0.076* (0.037)	-0.106*** (0.028)	-0.101*** (0.027)
Legal department	0.116* (0.050)	-0.000 (0.045)	0.028 (0.044)	0.033 (0.037)
Title VII lawsuit	0.053 (0.031)	0.035 (0.026)	0.002 (0.028)	-0.009 (0.021)
Affirmative action compliance review	0.075* (0.029)	0.017 (0.026)	0.039 (0.033)	0.062* (0.031)

Table S6 continued

Government contractor	0.008 (0.047)	-0.027 (0.038)	-0.026 (0.035)	-0.013 (0.037)
Proportion government contractors in industry	-0.476* (0.204)	-0.227 (0.186)	0.082 (0.135)	-0.149 (0.121)
Proportion of managerial jobs in establishment	0.174 (0.276)	-4.338*** (0.445)	-4.722*** (0.410)	-4.643*** (0.442)
Employees (log)	-0.064* (0.027)	-0.644*** (0.033)	-0.702*** (0.041)	-0.714*** (0.042)
Percent minorities in top management ³	-0.239 (0.422)	0.640 (0.336)	-0.243 (0.307)	-0.333 (0.347)
Percent women in top management ³	0.040 (0.201)	0.113 (0.226)	-0.003 (0.234)	-0.016 (0.212)
Proportion of focal group in core job	0.197** (0.072)	0.132 (0.171)	0.619** (0.189)	1.964** (0.664)
No managers from focal group	-0.269*** (0.038)	-0.653*** (0.021)	-0.533*** (0.026)	-0.580*** (0.038)
Proportion of group in industry workforce (log)				
White women	0.153* (0.075)	-0.011 (0.065)	0.014 (0.062)	-0.032 (0.062)
Black women	0.026 (0.026)	-0.030 (0.019)	-0.021 (0.018)	-0.020 (0.015)
Hispanic Women	0.031 (0.023)	0.011 (0.016)	-0.014 (0.011)	-0.001 (0.011)
Proportion of group in state labor force				
White women	1.647*** (0.441)	-0.000 (0.339)	-0.813* (0.368)	-0.578 (0.363)
Black women	1.352 (0.675)	-0.081 (0.721)	-1.587*** (0.448)	-1.284** (0.421)
Hispanic Women	-1.470 (0.899)	1.359 (1.101)	0.578 (0.976)	1.822* (0.834)
Industry employment in 000s	-0.005 (0.021)	-0.009 (0.029)	0.002 (0.015)	0.013 (0.013)
State unemployment rate	-0.003 (0.004)	-0.007* (0.003)	-0.004 (0.003)	-0.002 (0.003)
Time trend	0.019* (0.008)	-0.011 (0.006)	-0.007 (0.005)	-0.011 (0.006)
Constant	-2.256*** (0.289)	1.001*** (0.276)	1.265*** (0.274)	1.419*** (0.284)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.890	0.860	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for the years in between were interpolated.

We calculate values for the box plots in figures 3 through 6 of the main text from the regressions reported here. The coefficient β represents the change in log odds a group being in management associated with a change in the independent variable, as averaged across all years of the program's existence. The effect of each program on the percent of white, black, Hispanic, and Asian-American women in management will vary depending on where the organization begins, that is, on the baseline percent of the group among managers (23). A given percent change in the odds of a group in management will translate into a greater increase in its share in management in workplaces with fewer women from the group to begin with (23). In the main text, when we illustrate the effects of sexual harassment training for managers for each group, we use as a baseline the mean percent of the focal group among establishments in the specified quartile during the period prior to adoption of the program.

Additional Analyses

In the article we discuss results from additional analyses that supplement the findings. We report the full models for these analyses here.

In tables S7, S8 and S9 we report results from the analyses of program effects for each decile of the share of women in management. The tables include coefficients for the three sexual harassment programs interacted with the second through tenth deciles of the percent of total women in management. The non-interacted program coefficients represent the effect of the program among establishments in the first decile. The interacted coefficients represent the effect of having the program and being in a particular decile. In the row below each interaction coefficient, we report the coefficients from the linear combination of the variables for program + program \times female-manager-decile. These rows estimate the combined effect of each program in the relevant decile, as calculated with the LINCOM procedure in STATA.

In table S7 we report interactions for sexual harassment grievance procedure. Similar to the quartile analysis (table S4), coefficients indicate that for establishments in the first decile of women managers, grievance procedures are followed by reductions in all three groups of minority women. Interaction coefficients for the second and third deciles are not significant, and the linear combination shows that the negative effects on minority women continue to exist in these deciles for black women and in the third decile for Hispanic and Asian-American women as well. For Asian-American women these negative effects continue in deciles four through six (although the effect is weaker in the fourth) and Hispanic women see a negative effect in the seventh decile. Significant positive interaction coefficients appear in almost all deciles for black women. They are large enough to erase the negative effect but not to create any significant, positive effects in the linear combinations. These findings are consistent with the prediction that as women's share in management grows, negative program effects on minorities will decline.

All the interactions in the top two deciles generate significant coefficients for minority women. That is, establishments in the ninth and tenth deciles see significantly different effects of grievance procedures compared to those in the first quartile. The linear combinations, however, show positive significant effects only for Hispanic women. Among establishments highest in total women managers, only for Hispanic women do grievance procedures make a significant difference.

For white women there is a negative linear combination coefficient in the ninth decile, which explains the weak evidence observed in the quartile analysis of adverse effects in establishments with the most women managers -- consistent with the ally paradox thesis, where white women, the largest group of women managers, experience backlash due to group threat. Taken together findings of the decile analyses are parallel to those found in the quartile analysis, though due to small cell sizes, standard errors are sometimes larger. These findings support the group threat predictions.

Table S8 reports models parallel to those in Table S7, but for manager sexual harassment training. Results show that manager training produces positive combined effects for white women in establishments in the lower deciles (second through fourth) of women in management. Both interaction and linear combination coefficients for white women become negative in higher deciles of women in management, as expected from group threat theory, although they do not reach statistical significance. Minority women see positive effects of management training only when organizations are at the top of the distribution of women in management, in the ninth and tenth deciles. This is true for all three groups, although effects for Hispanic women are only significant at the 10% level. In addition, Asian-American women see a weak negative effect in the fifth decile. These results are consistent with the pattern found in the quartile analysis (table S5) and with our predictions that manager training will reduce harassment and therefore increase the share of women in management, and that for minority women this effect will appear only in workplaces with more total women in management. White women, here too, suffer from the ally paradox wherein increase in the share of women in management activate backlash.

Table S9 includes data from parallel models to those in S8, this time for employee sexual harassment training. As in the quartile analysis (table S6), employee management training has almost no effect on the share of women in management. The only effects observed are a weak negative effect on black women in the third decile. This is not observed in the quartile analysis but is generally consistent with the prediction that employee training may exacerbate men's gender role conflict and measured propensity to harass. Similar to the quartile analysis, white women see negative combined effects in the eighth and ninth deciles of women in management. Results are consistent with the quartile analysis and our prediction about backlash in workplaces with higher shares of women in management.

Continued

Table S7: Grievance Procedure by deciles of women in management

	White women	Black women	Hispanic women	Asian- American women
Sexual harassment grievance procedure	-0.030 (0.072)	-0.174** (0.062)	-0.128* (0.054)	-0.138* (0.056)
× 2nd decile of women in management	0.195* (0.079)	0.071 (0.058)	0.073 (0.049)	0.079 (0.045)
Linear combination	0.166** (0.054)	-0.103* (0.051)	-0.055 (0.048)	-0.059 (0.046)
× 3rd decile of women in management	0.065 (0.068)	0.090 (0.048)	0.030 (0.045)	0.076 (0.040)
Linear combination	0.036 (0.035)	-0.084* (0.037)	-0.098** (0.037)	-0.062* (0.029)
× 4th decile of women in management	0.066 (0.074)	0.108* (0.048)	0.076 (0.048)	0.078 (0.047)
Linear combination	0.037 (0.033)	-0.066 (0.042)	-0.052 (0.032)	-0.060 (0.030)
× 5th decile of women in management	-0.022 (0.077)	0.146* (0.060)	0.079 (0.055)	0.063 (0.053)
Linear combination	-0.052 (0.036)	-0.028 (0.037)	-0.049 (0.039)	-0.074* (0.031)
× 6th decile of women in management	0.001 (0.078)	0.096 (0.053)	0.058 (0.056)	0.008 (0.054)
Linear combination	-0.029 (0.043)	-0.078 (0.042)	-0.070 (0.037)	-0.130** (0.036)
× 7th decile of women in management	0.007 (0.078)	0.159* (0.075)	0.046 (0.069)	0.068 (0.071)
Linear combination	-0.022 (0.043)	-0.015 (0.047)	-0.082* (0.036)	-0.069 (0.043)
× 8th decile of women in management	0.004 (0.086)	0.170* (0.066)	0.105 (0.078)	0.096 (0.081)
Linear combination	-0.026 (0.043)	-0.004 (0.061)	-0.023 (0.064)	-0.042 (0.072)
× 9th decile of women in management	-0.049 (0.085)	0.282*** (0.073)	0.256*** (0.070)	0.146* (0.059)
Linear combination	-0.078* (0.039)	0.108 (0.055)	0.128* (0.051)	0.008 (0.058)
× 10th decile of women in management	-0.031 (0.086)	0.226** (0.072)	0.278*** (0.072)	0.209** (0.075)
Linear combination	-0.060 (0.042)	0.052 (0.040)	0.150* (0.057)	0.071 (0.063)
Manager sexual harassment training	0.050 (0.026)	0.040 (0.022)	0.010 (0.025)	0.041* (0.019)
Employee sexual harassment training	-0.058* (0.024)	-0.020 (0.023)	0.015 (0.034)	0.012 (0.026)
Manager general harassment training	-0.042 (0.025)	-0.037 (0.033)	-0.025 (0.030)	-0.028 (0.027)
Employee general harassment training	-0.007 (0.031)	0.010 (0.034)	-0.010 (0.036)	-0.026 (0.029)
General harassment procedure	-0.006 (0.030)	0.016 (0.031)	-0.012 (0.028)	-0.012 (0.022)

Table S7 Continued

2nd decile of women in management	-0.602*** (0.110)	-0.309*** (0.042)	-0.227*** (0.038)	-0.218*** (0.037)
3rd decile of women in management	-0.162 (0.097)	-0.245*** (0.031)	-0.183*** (0.032)	-0.194*** (0.028)
4th decile of women in management	0.041 (0.097)	-0.276*** (0.039)	-0.240*** (0.033)	-0.240*** (0.033)
5th decile of women in management	0.294** (0.109)	-0.248*** (0.039)	-0.235*** (0.032)	-0.237*** (0.034)
6th decile of women in management	0.478*** (0.109)	-0.191*** (0.040)	-0.205*** (0.037)	-0.168*** (0.032)
7th decile of women in management	0.648*** (0.093)	-0.178** (0.058)	-0.175*** (0.046)	-0.162*** (0.041)
8th decile of women in management	0.866*** (0.113)	-0.114 (0.058)	-0.159** (0.056)	-0.158** (0.055)
9th decile of women in management	1.184*** (0.111)	-0.172** (0.053)	-0.302*** (0.063)	-0.261*** (0.051)
10th decile of women in management	1.562*** (0.119)	-0.161** (0.058)	-0.375*** (0.055)	-0.336*** (0.063)
Count of formal HR policies ¹	-0.001 (0.006)	-0.008 (0.006)	-0.002 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.013 (0.015)	0.025* (0.011)	0.032* (0.013)	0.043** (0.015)
Diversity taskforce	0.100** (0.035)	0.205*** (0.052)	0.115* (0.054)	0.177** (0.057)
Diversity manager	0.081 (0.053)	0.120* (0.054)	0.152** (0.052)	0.109* (0.045)
Mentoring program	0.018 (0.053)	0.161* (0.069)	0.182* (0.073)	0.187** (0.063)
Diversity training	-0.018 (0.031)	-0.056 (0.049)	0.043 (0.041)	0.026 (0.045)
HR department	-0.083 (0.050)	-0.069 (0.037)	-0.099** (0.028)	-0.097*** (0.027)
Legal department	0.096* (0.045)	-0.008 (0.046)	0.023 (0.043)	0.026 (0.038)
Title VII lawsuit	0.044 (0.027)	0.032 (0.025)	-0.001 (0.027)	-0.014 (0.021)
Affirmative action compliance review	0.053 (0.029)	0.014 (0.026)	0.036 (0.033)	0.059 (0.031)
Government contractor	0.003 (0.042)	-0.033 (0.037)	-0.028 (0.034)	-0.014 (0.035)
Proportion government contractors in industry	-0.463* (0.182)	-0.237 (0.189)	0.092 (0.147)	-0.140 (0.120)
Proportion of managerial jobs in establishment	0.072 (0.250)	-4.271*** (0.434)	-4.659*** (0.403)	-4.585*** (0.445)
Employees (log)	-0.069** (0.024)	-0.625*** (0.031)	-0.685*** (0.039)	-0.699*** (0.041)
Percent minorities in top management ³	-0.248 (0.427)	0.572 (0.322)	-0.292 (0.297)	-0.368 (0.344)
Percent women in top management ³	0.026 (0.173)	0.085 (0.214)	-0.013 (0.217)	-0.014 (0.198)
Proportion of focal group in core job	0.174* (0.068)	0.131 (0.172)	0.598** (0.182)	1.934** (0.669)

Table S7 Continued

No managers from focal group	-0.577*** (0.075)	-0.639*** (0.022)	-0.525*** (0.026)	-0.573*** (0.038)
Proportion of group in industry workforce (log)				
White women	0.128 (0.067)	-0.010 (0.059)	0.020 (0.059)	-0.027 (0.059)
Black women	0.017 (0.026)	-0.029 (0.018)	-0.023 (0.017)	-0.017 (0.014)
Hispanic Women	0.039 (0.020)	0.017 (0.015)	-0.010 (0.010)	0.004 (0.010)
Proportion of group in state labor force				
White women	1.633*** (0.392)	0.195 (0.348)	-0.657 (0.366)	-0.466 (0.357)
Black women	1.411* (0.599)	0.008 (0.709)	-1.525** (0.457)	-1.252** (0.433)
Hispanic Women	-0.966 (0.886)	1.482 (1.083)	0.575 (0.979)	1.831* (0.828)
Industry employment in 000s	0.010 (0.020)	-0.011 (0.030)	-0.003 (0.016)	0.010 (0.013)
State unemployment rate	-0.003 (0.003)	-0.006 (0.003)	-0.004 (0.003)	-0.002 (0.003)
Time trend	0.017* (0.007)	-0.005 (0.006)	-0.003 (0.005)	-0.008 (0.006)
Constant	-1.900*** (0.289)	1.053*** (0.255)	1.251*** (0.263)	1.434*** (0.286)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.898	0.863	0.885	0.890

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Table S8: Manager training by deciles of women in management

	White women	Black women	Hispanic women	Asian-American women
Manager sexual harassment training	0.077 (0.099)	0.036 (0.078)	0.023 (0.061)	0.064 (0.062)
× 2nd decile of women in management	0.173 (0.093)	-0.033 (0.077)	-0.062 (0.070)	-0.063 (0.071)
Linear combination	0.025* (0.074)	0.003 (0.033)	-0.039 (0.053)	0.001 (0.040)
× 3rd decile of women in management	0.025 (0.082)	-0.023 (0.080)	-0.070 (0.062)	-0.066 (0.063)
Linear combination	0.102* (0.044)	0.013 (0.037)	-0.047 (0.037)	-0.003 (0.030)
× 4th decile of women in management	0.019 (0.085)	-0.056 (0.090)	-0.040 (0.060)	-0.045 (0.064)
Linear combination	0.096* (0.038)	-0.020 (0.046)	-0.017 (0.038)	0.019 (0.029)
× 5th decile of women in management	-0.060 (0.089)	-0.045 (0.086)	-0.068 (0.063)	-0.113 (0.062)
Linear combination	0.018 (0.036)	-0.009 (0.038)	-0.044 (0.044)	-0.050* (0.023)
× 6th decile of women in management	-0.043 (0.114)	-0.068 (0.079)	-0.062 (0.060)	-0.095 (0.061)
Linear combination	0.034 (0.036)	-0.032 (0.041)	-0.038 (0.029)	-0.031 (0.026)
× 7th decile of women in management	-0.021 (0.119)	0.010 (0.085)	-0.068 (0.072)	0.002 (0.067)
Linear combination	0.056 (0.044)	0.046 (0.050)	-0.044 (0.043)	0.066 (0.035)
× 8th decile of women in management	-0.067 (0.114)	0.004 (0.079)	0.036 (0.087)	0.011 (0.078)
Linear combination	0.011 (0.037)	0.041 (0.053)	0.059 (0.045)	0.075 (0.043)
× 9th decile of women in management	-0.125 (0.111)	0.154 (0.076)	0.137 (0.085)	0.079 (0.073)
Linear combination	-0.048 (0.044)	0.190** (0.051)	0.160* (0.061)	0.143** (0.045)
× 10th decile of women in management	-0.115 (0.106)	0.158 (0.097)	0.119 (0.101)	0.091 (0.087)
Linear combination	-0.037 (0.055)	0.194** (0.055)	0.143 (0.077)	0.155* (0.065)
Employee sexual harassment training	-0.054* (0.023)	-0.019 (0.024)	0.015 (0.033)	0.013 (0.026)
Sexual harassment grievance procedure	-0.004 (0.026)	-0.046 (0.031)	-0.034 (0.027)	-0.060* (0.026)
Manager general harassment training	-0.043 (0.026)	-0.036 (0.033)	-0.023 (0.030)	-0.025 (0.027)
Employee general harassment training	-0.012 (0.030)	0.011 (0.035)	-0.010 (0.036)	-0.027 (0.030)
General harassment procedure	-0.006 (0.030)	0.021 (0.031)	-0.009 (0.027)	-0.011 (0.022)

Table S8 Continued

2nd decile of women in management	-0.560***	-0.288***	-0.195***	-0.187***
	(0.107)	(0.034)	(0.033)	(0.035)
3rd decile of women in management	-0.144	-0.218***	-0.167***	-0.158***
	(0.094)	(0.029)	(0.028)	(0.028)
4th decile of women in management	0.062	-0.227***	-0.208***	-0.206***
	(0.094)	(0.038)	(0.029)	(0.031)
5th decile of women in management	0.292**	-0.180***	-0.191***	-0.187***
	(0.098)	(0.037)	(0.026)	(0.032)
6th decile of women in management	0.484***	-0.141***	-0.174***	-0.155***
	(0.106)	(0.036)	(0.029)	(0.029)
7th decile of women in management	0.649***	-0.114*	-0.144***	-0.145***
	(0.094)	(0.046)	(0.036)	(0.033)
8th decile of women in management	0.881***	-0.036	-0.132*	-0.127*
	(0.101)	(0.046)	(0.050)	(0.052)
9th decile of women in management	1.186***	-0.076	-0.222***	-0.223***
	(0.096)	(0.054)	(0.059)	(0.056)
10th decile of women in management	1.565***	-0.087	-0.271***	-0.264***
	(0.109)	(0.068)	(0.061)	(0.070)
Count of formal HR policies ¹	-0.001	-0.008	-0.002	-0.006
	(0.006)	(0.006)	(0.006)	(0.007)
Count of work-life programs ²	0.012	0.026*	0.032*	0.043**
	(0.014)	(0.011)	(0.013)	(0.015)
Diversity taskforce	0.105**	0.199***	0.112*	0.174**
	(0.035)	(0.053)	(0.054)	(0.055)
Diversity manager	0.081	0.120*	0.154**	0.110*
	(0.052)	(0.054)	(0.052)	(0.046)
Mentoring program	0.019	0.167*	0.183*	0.190**
	(0.055)	(0.069)	(0.072)	(0.063)
Diversity training	-0.018	-0.056	0.044	0.025
	(0.031)	(0.049)	(0.040)	(0.045)
HR department	-0.083	-0.073	-0.104***	-0.100***
	(0.051)	(0.037)	(0.029)	(0.028)
Legal department	0.099*	-0.010	0.023	0.025
	(0.043)	(0.045)	(0.044)	(0.037)
Title VII lawsuit	0.044	0.033	0.001	-0.012
	(0.027)	(0.025)	(0.027)	(0.021)
Affirmative action compliance review	0.056	0.018	0.042	0.066*
	(0.030)	(0.026)	(0.032)	(0.030)
Government contractor	0.005	-0.031	-0.028	-0.014
	(0.043)	(0.037)	(0.034)	(0.036)
Proportion government contractors in industry	-0.448*	-0.232	0.072	-0.157
	(0.174)	(0.184)	(0.142)	(0.124)
Proportion of managerial jobs in establishment	0.091	-4.280***	-4.677***	-4.594***
	(0.260)	(0.430)	(0.403)	(0.445)
Employees (log)	-0.067**	-0.625***	-0.687***	-0.700***
	(0.025)	(0.031)	(0.039)	(0.041)
Percent minorities in top management ³	-0.243	0.630	-0.224	-0.318
	(0.422)	(0.325)	(0.306)	(0.347)
Percent women in top management ³	0.033	0.102	-0.011	-0.019
	(0.169)	(0.217)	(0.229)	(0.205)
Proportion of focal group in core job	0.172*	0.128	0.622***	1.925**
	(0.071)	(0.168)	(0.176)	(0.693)

Table S8 Continued

No managers from focal group	-0.580*** (0.075)	-0.641*** (0.022)	-0.529*** (0.026)	-0.572*** (0.037)
Proportion of group in industry workforce (log)				
White women	0.148* (0.069)	-0.035 (0.062)	0.001 (0.061)	-0.044 (0.060)
Black women	0.019 (0.026)	-0.031 (0.018)	-0.020 (0.016)	-0.017 (0.014)
Hispanic Women	0.039 (0.021)	0.017 (0.015)	-0.009 (0.010)	0.003 (0.010)
Proportion of group in state labor force				
White women	1.590*** (0.382)	0.183 (0.351)	-0.680 (0.354)	-0.456 (0.354)
Black women	1.419* (0.615)	0.071 (0.713)	-1.493** (0.463)	-1.195** (0.443)
Hispanic Women	-0.965 (0.895)	1.564 (1.094)	0.680 (0.984)	1.927* (0.844)
Industry employment in 000s	0.011 (0.020)	-0.011 (0.030)	-0.002 (0.015)	0.010 (0.013)
State unemployment rate	-0.003 (0.003)	-0.006 (0.003)	-0.004 (0.003)	-0.002 (0.003)
Time trend	0.018* (0.007)	-0.007 (0.006)	-0.005 (0.005)	-0.009 (0.006)
Constant	-1.977*** (0.279)	0.971*** (0.264)	1.241*** (0.273)	1.310*** (0.280)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.898	0.863	0.885	0.890

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Table S9: Employee training by deciles of women in management

	White women	Black women	Hispanic women	Asian-American women
Employee sexual harassment training	0.110 (0.121)	-0.015 (0.080)	0.027 (0.093)	0.055 (0.087)
× 2nd decile of women in management	-0.073 (0.113)	-0.030 (0.076)	-0.075 (0.083)	-0.112 (0.081)
Linear combination	0.037 (0.087)	-0.043 (0.054)	-0.048 (0.051)	-0.056 (0.053)
× 3rd decile of women in management	-0.126 (0.114)	-0.062 (0.081)	-0.052 (0.074)	-0.064 (0.071)
Linear combination	-0.015 (0.041)	-0.076* (0.038)	-0.025 (0.037)	-0.008 (0.030)
× 4th decile of women in management	-0.133 (0.103)	0.001 (0.074)	-0.016 (0.080)	-0.040 (0.073)
Linear combination	-0.022 (0.044)	-0.014 (0.050)	0.011 (0.030)	0.015 (0.028)
× 5th decile of women in management	-0.173 (0.103)	0.044 (0.073)	-0.004 (0.075)	-0.060 (0.073)
Linear combination	-0.062 (0.038)	0.031 (0.039)	0.024 (0.034)	-0.005 (0.037)
× 6th decile of women in management	-0.133 (0.125)	-0.041 (0.070)	-0.011 (0.076)	-0.094 (0.074)
Linear combination	-0.022 (0.031)	-0.055 (0.049)	0.016 (0.043)	-0.039 (0.034)
× 7th decile of women in management	-0.198 (0.139)	0.041 (0.099)	-0.036 (0.087)	-0.012 (0.089)
Linear combination	-0.087* (0.039)	0.026 (0.061)	-0.009 (0.043)	0.043 (0.043)
× 8th decile of women in management	-0.231 (0.123)	-0.043 (0.113)	0.007 (0.111)	0.013 (0.100)
Linear combination	-0.121*** (0.029)	-0.058 (0.063)	0.034 (0.065)	0.068 (0.062)
× 9th decile of women in management	-0.212 (0.123)	0.087 (0.100)	0.051 (0.082)	-0.029 (0.081)
Linear combination	-0.101** (0.034)	0.073 (0.062)	0.078 (0.054)	0.026 (0.056)
× 10th decile of women in management	-0.204 (0.142)	-0.088 (0.103)	-0.027 (0.088)	-0.047 (0.098)
Linear combination	-0.093 (0.073)	-0.102 (0.058)	0.000 (0.072)	0.009 (0.071)
Manager sexual harassment training	0.045 (0.027)	0.046* (0.022)	0.017 (0.025)	0.044* (0.020)
Sexual harassment grievance procedure	-0.007 (0.026)	-0.040 (0.031)	-0.028 (0.026)	-0.056* (0.026)
Manager general harassment training	-0.044 (0.026)	-0.039 (0.033)	-0.027 (0.029)	-0.028 (0.026)
Employee general harassment training	-0.012 (0.032)	0.014 (0.036)	-0.008 (0.037)	-0.025 (0.030)
General harassment policy	-0.007 (0.030)	0.018 (0.031)	-0.011 (0.027)	-0.013 (0.022)

Table S9 Continued

2nd decile of women in management	-0.513***	-0.284***	-0.191***	-0.178***
	(0.102)	(0.032)	(0.031)	(0.031)
3rd decile of women in management	-0.116	-0.206***	-0.170***	-0.159***
	(0.092)	(0.027)	(0.026)	(0.025)
4th decile of women in management	0.093	-0.240***	-0.211***	-0.207***
	(0.091)	(0.036)	(0.032)	(0.029)
5th decile of women in management	0.309**	-0.201***	-0.209***	-0.207***
	(0.094)	(0.036)	(0.027)	(0.034)
6th decile of women in management	0.496***	-0.154***	-0.192***	-0.164***
	(0.100)	(0.031)	(0.030)	(0.027)
7th decile of women in management	0.688***	-0.123**	-0.160***	-0.141***
	(0.088)	(0.043)	(0.035)	(0.033)
8th decile of women in management	0.914***	-0.025	-0.121*	-0.127*
	(0.096)	(0.055)	(0.053)	(0.053)
9th decile of women in management	1.195***	-0.046	-0.187**	-0.192***
	(0.093)	(0.054)	(0.061)	(0.055)
10th decile of women in management	1.581***	-0.027	-0.231***	-0.229***
	(0.110)	(0.064)	(0.062)	(0.065)
Count of formal HR policies ¹	-0.001	-0.007	-0.001	-0.006
	(0.006)	(0.006)	(0.006)	(0.007)
Count of work-life programs ²	0.012	0.027*	0.033*	0.043**
	(0.015)	(0.011)	(0.013)	(0.015)
Diversity taskforce	0.106**	0.206***	0.118*	0.178**
	(0.035)	(0.053)	(0.054)	(0.056)
Diversity manager	0.081	0.118*	0.152**	0.108*
	(0.052)	(0.054)	(0.052)	(0.045)
Mentoring program	0.022	0.160*	0.179*	0.187**
	(0.053)	(0.069)	(0.074)	(0.063)
Diversity training	-0.020	-0.051	0.046	0.027
	(0.031)	(0.049)	(0.041)	(0.046)
HR department	-0.084	-0.075*	-0.107***	-0.102***
	(0.051)	(0.036)	(0.028)	(0.027)
Legal department	0.100*	-0.012	0.020	0.025
	(0.044)	(0.045)	(0.044)	(0.037)
Title VII lawsuit	0.044	0.032	-0.002	-0.013
	(0.028)	(0.025)	(0.028)	(0.021)
Affirmative action compliance review	0.058*	0.014	0.038	0.063*
	(0.028)	(0.025)	(0.032)	(0.030)
Government contractor	0.006	-0.031	-0.028	-0.014
	(0.043)	(0.037)	(0.035)	(0.036)
Proportion government contractors in industry	-0.458*	-0.226	0.071	-0.164
	(0.177)	(0.190)	(0.144)	(0.121)
Proportion of managerial jobs in establishment	0.081	-4.291***	-4.681***	-4.596***
	(0.253)	(0.433)	(0.400)	(0.440)
Employees (log)	-0.070**	-0.626***	-0.688***	-0.702***
	(0.024)	(0.031)	(0.039)	(0.041)
Percent minorities in top management ³	-0.223	0.619	-0.254	-0.334
	(0.423)	(0.327)	(0.307)	(0.351)
Percent women in top management ³	0.021	0.098	-0.014	-0.017
	(0.175)	(0.221)	(0.229)	(0.207)
Proportion of focal group in core job	0.168*	0.152	0.605**	1.952**
	(0.071)	(0.166)	(0.177)	(0.668)

Table S9 Continued

No managers from focal group	-0.567***	-0.638***	-0.531***	-0.574***
	(0.072)	(0.022)	(0.026)	(0.038)
Proportion of group in industry workforce (log)				
White women	0.149*	-0.010	0.019	-0.024
	(0.069)	(0.060)	(0.061)	(0.060)
Black women	0.019	-0.023	-0.015	-0.012
	(0.025)	(0.019)	(0.017)	(0.015)
Hispanic Women	0.039	0.019	-0.008	0.004
	(0.021)	(0.015)	(0.011)	(0.011)
Proportion of group in state labor force				
White women	1.639***	0.096	-0.752*	-0.513
	(0.386)	(0.340)	(0.365)	(0.357)
Black women	1.455*	-0.009	-1.559**	-1.273**
	(0.602)	(0.738)	(0.452)	(0.430)
Hispanic Women	-0.921	1.532	0.637	1.893*
	(0.893)	(1.088)	(0.989)	(0.838)
Industry employment in 000s	0.011	-0.008	0.001	0.012
	(0.020)	(0.030)	(0.015)	(0.013)
State unemployment rate	-0.002	-0.006	-0.004	-0.002
	(0.003)	(0.003)	(0.003)	(0.003)
Time trend	0.017*	-0.008	-0.004	-0.009
	(0.007)	(0.006)	(0.005)	(0.006)
Constant	-1.908***	1.056***	1.315***	1.389***
	(0.276)	(0.269)	(0.266)	(0.283)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.898	0.862	0.884	0.889

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for the years in between were interpolated.

In tables S10, S11 and S12 we report coefficients for the three sexual harassment programs interacted with the percent of women in management. The non-interacted program coefficients represent effects among establishments with no women in management. The interacted coefficients represent the average additional effect of the program in establishments with more than zero women in management. Table S10 includes results for the analysis of grievance procedures. For all three groups of minority women, grievance procedures show significant negative effects in workplaces with no women managers, similar to the quartile analysis. All four interaction terms are significant, indicating that program effects are dependent on the share of women in management. For minority women, growth of women in management moderates the negative effects of grievance procedures, as expected by the management ally prediction. For white women, the interaction is negative, as expected by group threat and ally paradox theories.

Table S11 includes results for the analysis of management training. Non-interacted coefficients show that only white women see positive effect of training when there are no women in management. The significant interaction coefficients indicate that as the share of women in management grows, manager training effects on minority women become positive, as expected by management ally theory, while manager training effects for white women decline and become negative, as predicted by group threat theory.

Table S12 includes results for employee training. The only significant coefficient is the interaction term for white women, indicating that as the share of women in management grows, employee training shows a negative effect of white women. Minority women do not see these negative program effects, supporting the notion that minority women are less likely to incite sentiments of group threat. These findings are consistent with our ally and ally paradox theories, and with the main finding, and strengthen the case for quartile analysis, by exploring threshold effects (as discussed in the article).

Table S10: Grievance procedure by the percent of women in management

	White women	Black women	Hispanic women	Asian-American women
Sexual harassment grievance procedure	0.069 (0.040)	-0.128** (0.040)	-0.128** (0.037)	-0.122** (0.036)
× the percent of women in management	-0.298** (0.095)	0.346*** (0.090)	0.399*** (0.098)	0.262** (0.083)
Manager sexual harassment training	0.068* (0.026)	0.049* (0.023)	0.015 (0.025)	0.044* (0.019)
Employee sexual harassment training	-0.056* (0.022)	-0.019 (0.024)	0.015 (0.034)	0.015 (0.025)
Manager general harassment training	-0.054 (0.027)	-0.041 (0.034)	-0.027 (0.030)	-0.030 (0.027)
Employee general harassment training	0.008 (0.031)	0.012 (0.036)	-0.010 (0.037)	-0.026 (0.030)
General harassment procedure	-0.006 (0.033)	0.019 (0.033)	-0.012 (0.028)	-0.013 (0.024)
The percent of women in management	3.251*** (0.100)	-0.001 (0.091)	-0.399*** (0.090)	-0.342*** (0.086)
Count of formal HR policies ¹	-0.001 (0.006)	-0.007 (0.006)	-0.002 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.008 (0.016)	0.023 (0.012)	0.031* (0.013)	0.042** (0.016)
Diversity taskforce	0.105* (0.041)	0.217*** (0.053)	0.126* (0.053)	0.187** (0.056)
Diversity manager	0.073 (0.053)	0.127* (0.054)	0.162** (0.055)	0.115* (0.048)
Mentoring program	0.038 (0.065)	0.174* (0.070)	0.187* (0.075)	0.193** (0.066)
Diversity training	-0.022 (0.032)	-0.062 (0.051)	0.038 (0.043)	0.019 (0.047)
HR department	-0.098* (0.048)	-0.070 (0.038)	-0.100*** (0.028)	-0.097*** (0.027)
Legal department	0.115* (0.050)	0.006 (0.045)	0.035 (0.043)	0.039 (0.038)
Title VII lawsuit	0.052 (0.027)	0.038 (0.025)	0.006 (0.026)	-0.005 (0.020)
Affirmative action compliance review	0.051 (0.031)	0.024 (0.027)	0.047 (0.033)	0.069* (0.032)
Government contractor	0.011 (0.045)	-0.030 (0.038)	-0.029 (0.035)	-0.015 (0.037)
Proportion government contractors in industry	-0.476* (0.188)	-0.219 (0.185)	0.083 (0.144)	-0.148 (0.125)
Proportion of managerial jobs in establishment	-0.101 (0.261)	-4.316*** (0.450)	-4.667*** (0.414)	-4.583*** (0.450)
Employees (log)	-0.078** (0.026)	-0.645*** (0.033)	-0.699*** (0.041)	-0.712*** (0.042)

Table S10 Continued

Percent minorities in top management ³	-0.188 (0.410)	0.610 (0.337)	-0.271 (0.295)	-0.347 (0.347)
Percent women in top management ³	-0.045 (0.169)	0.101 (0.220)	-0.015 (0.225)	-0.020 (0.200)
Proportion of focal group in core job	0.167* (0.067)	0.088 (0.180)	0.616** (0.190)	2.007** (0.675)
No managers from focal group	-0.269*** (0.043)	-0.656*** (0.022)	-0.530*** (0.026)	-0.584*** (0.039)
Proportion of group in industry workforce (log)				
White women	0.173* (0.075)	-0.023 (0.062)	0.010 (0.061)	-0.036 (0.062)
Black women	0.022 (0.025)	-0.039 (0.020)	-0.029 (0.018)	-0.024 (0.016)
Hispanic Women	0.027 (0.021)	0.008 (0.015)	-0.016 (0.010)	-0.001 (0.010)
Proportion of group in state labor force				
White women	1.787*** (0.376)	0.052 (0.329)	-0.740* (0.365)	-0.574 (0.355)
Black women	1.486* (0.597)	-0.151 (0.683)	-1.640*** (0.455)	-1.366** (0.428)
Hispanic Women	-1.213 (0.908)	1.284 (1.076)	0.481 (0.987)	1.723* (0.813)
Industry employment in 000s	0.017 (0.020)	-0.012 (0.028)	-0.003 (0.017)	0.009 (0.014)
State unemployment rate	-0.003 (0.003)	-0.007* (0.003)	-0.004 (0.003)	-0.002 (0.003)
Time trend	0.017* (0.007)	-0.008 (0.007)	-0.004 (0.005)	-0.009 (0.006)
Constant	-2.251*** (0.239)	0.943** (0.270)	1.222*** (0.277)	1.325*** (0.288)
Workplace fixed effects	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.896	0.860	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Table S11: Manager training by the percent of women in management

	White women	Black women	Hispanic women	Asian- American women
Manager sexual harassment training	0.145*** (0.040)	-0.037 (0.038)	-0.066 (0.044)	-0.025 (0.027)
× the percent of women in management	-0.308** (0.102)	0.347*** (0.093)	0.331* (0.133)	0.276*** (0.074)
Employee sexual harassment training	-0.056* (0.022)	-0.019 (0.024)	0.014 (0.034)	0.015 (0.025)
Sexual harassment grievance procedure	0.001 (0.028)	-0.050 (0.031)	-0.037 (0.027)	-0.063* (0.027)
Manager general harassment training	-0.055 (0.027)	-0.040 (0.034)	-0.027 (0.030)	-0.028 (0.027)
Employee general harassment training	0.004 (0.031)	0.016 (0.036)	-0.006 (0.037)	-0.023 (0.030)
General harassment procedure	-0.007 (0.033)	0.020 (0.033)	-0.010 (0.028)	-0.012 (0.024)
The percent of women in management	3.161*** (0.099)	0.101 (0.105)	-0.265** (0.097)	-0.268* (0.100)
Count of formal HR policies ¹	-0.001 (0.006)	-0.007 (0.006)	-0.002 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.007 (0.015)	0.024* (0.012)	0.032* (0.013)	0.043** (0.016)
Diversity taskforce	0.111* (0.041)	0.211*** (0.054)	0.120* (0.055)	0.181** (0.055)
Diversity manager	0.071 (0.052)	0.129* (0.055)	0.164** (0.055)	0.117* (0.049)
Mentoring program	0.037 (0.067)	0.176* (0.070)	0.189* (0.076)	0.195** (0.066)
Diversity training	-0.023 (0.032)	-0.061 (0.051)	0.040 (0.043)	0.020 (0.047)
HR department	-0.097 (0.050)	-0.071 (0.038)	-0.102*** (0.028)	-0.098*** (0.027)
Legal department	0.117* (0.049)	0.003 (0.045)	0.031 (0.043)	0.037 (0.037)
Title VII lawsuit	0.051 (0.027)	0.039 (0.025)	0.006 (0.026)	-0.004 (0.020)
Affirmative action compliance review	0.051 (0.031)	0.024 (0.027)	0.046 (0.033)	0.069* (0.032)
Government contractor	0.011 (0.046)	-0.030 (0.038)	-0.028 (0.035)	-0.015 (0.037)
Proportion government contractors in industry	-0.463* (0.185)	-0.235 (0.188)	0.070 (0.140)	-0.160 (0.129)
Proportion of managerial jobs in establishment	-0.086 (0.266)	-4.332*** (0.445)	-4.686*** (0.409)	-4.596*** (0.448)
Employees (log)	-0.075** (0.026)	-0.648*** (0.033)	-0.703*** (0.041)	-0.715*** (0.041)

Table S11 Continued

Percent minorities in top management ³	-0.220 (0.403)	0.650 (0.335)	-0.228 (0.305)	-0.317 (0.351)
Percent women in top management ³	-0.040 (0.170)	0.097 (0.224)	-0.015 (0.232)	-0.025 (0.205)
Proportion of focal group in core job	0.169* (0.068)	0.104 (0.176)	0.625** (0.188)	2.000** (0.683)
No managers from focal group	-0.273*** (0.044)	-0.654*** (0.022)	-0.532*** (0.026)	-0.582*** (0.038)
Proportion of group in industry workforce (log)				
White women	0.190* (0.075)	-0.043 (0.064)	-0.009 (0.063)	-0.052 (0.063)
Black women	0.022 (0.025)	-0.039* (0.019)	-0.027 (0.017)	-0.025 (0.016)
Hispanic Women	0.027 (0.022)	0.008 (0.015)	-0.015 (0.010)	-0.002 (0.010)
Proportion of group in state labor force				
White women	1.792*** (0.371)	0.038 (0.332)	-0.785* (0.356)	-0.579 (0.361)
Black women	1.440* (0.610)	-0.102 (0.690)	-1.603*** (0.457)	-1.327** (0.433)
Hispanic Women	-1.284 (0.897)	1.365 (1.073)	0.561 (0.974)	1.789* (0.819)
Industry employment in 000s	0.016 (0.021)	-0.011 (0.029)	-0.001 (0.017)	0.010 (0.014)
State unemployment rate	-0.003 (0.003)	-0.007* (0.003)	-0.005 (0.003)	-0.003 (0.003)
Time trend	0.018* (0.007)	-0.009 (0.006)	-0.006 (0.005)	-0.010 (0.006)
Constant	-2.233*** (0.239)	0.921** (0.276)	1.220*** (0.283)	1.393*** (0.291)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.896	0.860	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Table S12: Employee training by the percent of women in management

	White women	Black women	Hispanic women	Asian-American women
Employee sexual harassment training	0.014 (0.041)	-0.019 (0.044)	-0.006 (0.040)	-0.009 (0.039)
× the percent of women in management	-0.248* (0.100)	-0.004 (0.122)	0.069 (0.099)	0.081 (0.102)
Manager sexual harassment training	0.062* (0.027)	0.054* (0.023)	0.021 (0.024)	0.048* (0.020)
Sexual harassment grievance procedure	-0.001 (0.028)	-0.046 (0.031)	-0.033 (0.027)	-0.060* (0.027)
Manager general harassment training	-0.054 (0.027)	-0.045 (0.034)	-0.031 (0.029)	-0.031 (0.026)
Employee general harassment training	0.004 (0.031)	0.017 (0.037)	-0.005 (0.038)	-0.022 (0.031)
General harassment policy	-0.007 (0.033)	0.021 (0.032)	-0.010 (0.027)	-0.012 (0.023)
The percent of women in management	3.133*** (0.100)	0.192 (0.103)	-0.195 (0.105)	-0.214* (0.095)
Count of formal HR policies ¹	-0.001 (0.006)	-0.007 (0.006)	-0.001 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.006 (0.015)	0.025* (0.011)	0.033* (0.013)	0.044** (0.015)
Diversity taskforce	0.107* (0.042)	0.219*** (0.054)	0.127* (0.054)	0.187** (0.055)
Diversity manager	0.074 (0.053)	0.127* (0.055)	0.162** (0.055)	0.115* (0.048)
Mentoring program	0.037 (0.065)	0.176* (0.070)	0.189* (0.075)	0.195** (0.066)
Diversity training	-0.022 (0.032)	-0.057 (0.051)	0.042 (0.044)	0.021 (0.048)
HR department	-0.095 (0.050)	-0.074 (0.037)	-0.105*** (0.027)	-0.100*** (0.027)
Legal department	0.119* (0.050)	0.002 (0.045)	0.031 (0.043)	0.036 (0.037)
Title VII lawsuit	0.052 (0.027)	0.037 (0.026)	0.004 (0.027)	-0.006 (0.021)
Affirmative action compliance review	0.052 (0.030)	0.021 (0.026)	0.044 (0.033)	0.067* (0.033)
Government contractor	0.011 (0.046)	-0.028 (0.038)	-0.027 (0.035)	-0.014 (0.037)
Proportion government contractors in industry	-0.467* (0.187)	-0.215 (0.188)	0.085 (0.141)	-0.149 (0.126)
Proportion of managerial jobs in establishment	-0.092 (0.264)	-4.318*** (0.449)	-4.677*** (0.409)	-4.588*** (0.446)
Employees (log)	-0.078** (0.026)	-0.645*** (0.033)	-0.701*** (0.041)	-0.713*** (0.042)

Table S12 Continued

Percent minorities in top management ³	-0.174 (0.410)	0.641 (0.345)	-0.248 (0.311)	-0.338 (0.356)
Percent women in top management ³	-0.056 (0.174)	0.126 (0.227)	0.010 (0.236)	-0.005 (0.208)
Proportion of focal group in core job	0.171* (0.068)	0.121 (0.174)	0.621** (0.194)	2.025** (0.669)
No managers from focal group	-0.275*** (0.044)	-0.653*** (0.022)	-0.536*** (0.026)	-0.585*** (0.039)
Proportion of group in industry workforce (log)				
White women	0.186* (0.075)	-0.024 (0.064)	0.004 (0.062)	-0.041 (0.063)
Black women	0.021 (0.025)	-0.033 (0.020)	-0.023 (0.018)	-0.021 (0.015)
Hispanic Women	0.026 (0.021)	0.011 (0.015)	-0.013 (0.011)	0.000 (0.011)
Proportion of group in state labor force				
White women	1.849*** (0.375)	-0.104 (0.325)	-0.901* (0.376)	-0.669 (0.366)
Black women	1.505* (0.608)	-0.194 (0.688)	-1.689*** (0.462)	-1.394** (0.427)
Hispanic Women	-1.236 (0.893)	1.322 (1.078)	0.515 (0.988)	1.749* (0.826)
Industry employment in 000s	0.016 (0.021)	-0.009 (0.029)	0.000 (0.016)	0.011 (0.014)
State unemployment rate	-0.003 (0.003)	-0.007* (0.003)	-0.005 (0.003)	-0.003 (0.003)
Time trend	-2.349*** (0.239)	0.981*** (0.277)	1.273*** (0.280)	1.434*** (0.291)
Constant	-2.256*** (0.289)	1.001*** (0.276)	1.265*** (0.274)	1.419*** (0.284)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.896	0.859	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for the years in between were interpolated.

In tables S13 and S14 we report coefficients for interactions between grievance procedures and both manager training (S13) and employee training (S14). The non-interacted coefficients in these models represent the program effects in the absence of the other program involved in the interaction. Roughly 5% of the workplace-years spells with manager or employee training have no grievance procedures. About 45% of spells with grievance procedure have no manager training and 60% have no employee training. The interaction coefficients represent the additional effect of having both programs at the same time. None of the interaction coefficients in tables S13 and S14 are significant, indicating that having a grievance procedure and manager or employee training does not change the effects of these programs on the share of women in management. Manager training may help reduce harassment but not by teaching managers how to use the internal complaint system effectively. Employee training frequently includes information about using the grievance system, but this does not seem to alter the working of the system.

Table S13: Grievance Procedure by Manager Training

	White women	Black women	Hispanic women	Asian-American women
Sexual harassment grievance procedure	0.007 (0.030)	-0.049 (0.030)	-0.033 (0.026)	-0.055* (0.025)
Manager sexual harassment training	0.166* (0.072)	0.028 (0.078)	0.018 (0.078)	0.099 (0.079)
* both grievance procedure and manager training	-0.112 (0.071)	0.029 (0.077)	0.003 (0.075)	-0.056 (0.078)
Employee sexual harassment training	-0.054* (0.022)	-0.021 (0.024)	0.013 (0.034)	0.014 (0.025)
Manager general harassment training	-0.051 (0.028)	-0.045 (0.034)	-0.031 (0.029)	-0.033 (0.026)
Employee general harassment training	0.003 (0.031)	0.017 (0.037)	-0.005 (0.038)	-0.023 (0.031)
General harassment grievance procedure	-0.009 (0.033)	0.021 (0.032)	-0.010 (0.027)	-0.012 (0.023)
Proportion of women managers	3.076*** (0.106)	0.192 (0.110)	-0.180 (0.116)	-0.199 (0.100)
Count of formal HR policies ¹	-0.001 (0.006)	-0.007 (0.006)	-0.001 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.007 (0.016)	0.025* (0.011)	0.033* (0.013)	0.043** (0.015)
Diversity taskforce	0.102* (0.042)	0.220*** (0.054)	0.128* (0.054)	0.187** (0.056)
Diversity manager	0.072 (0.053)	0.127* (0.055)	0.162** (0.055)	0.115* (0.048)
Mentoring program	0.040 (0.065)	0.176* (0.070)	0.189* (0.075)	0.196** (0.066)
Diversity training	-0.023 (0.032)	-0.058 (0.052)	0.043 (0.045)	0.024 (0.048)
HR department	-0.094 (0.050)	-0.074 (0.037)	-0.105*** (0.027)	-0.100*** (0.027)
Legal department	0.117* (0.050)	0.002 (0.045)	0.031 (0.043)	0.036 (0.037)
Title VII lawsuit	0.053 (0.027)	0.037 (0.026)	0.004 (0.026)	-0.007 (0.020)
Affirmative action compliance review	0.054 (0.030)	0.021 (0.027)	0.043 (0.033)	0.067* (0.032)
Government contractor	0.008 (0.046)	-0.028 (0.038)	-0.027 (0.035)	-0.014 (0.037)
Proportion government contractors in industry	-0.471* (0.188)	-0.217 (0.187)	0.088 (0.144)	-0.140 (0.124)
Proportion of managerial jobs in establishment	-0.105 (0.259)	-4.317*** (0.449)	-4.675*** (0.410)	-4.589*** (0.445)
Employees (log)	-0.076** (0.026)	-0.646*** (0.033)	-0.701*** (0.041)	-0.713*** (0.042)

Table S13 Continued

Percent minorities in top management ³	-0.223 (0.405)	0.643 (0.349)	-0.238 (0.311)	-0.332 (0.354)
Percent women in top management ³	-0.064 (0.172)	0.125 (0.227)	0.012 (0.235)	-0.001 (0.205)
Proportion of focal group in core job	0.177* (0.069)	0.119 (0.175)	0.624** (0.191)	2.026** (0.669)
No managers from focal group	-0.274*** (0.044)	-0.653*** (0.022)	-0.536*** (0.026)	-0.584*** (0.039)
Proportion of group in industry workforce (log)				
White women	0.172* (0.074)	-0.024 (0.063)	0.008 (0.062)	-0.039 (0.063)
Black women	0.017 (0.026)	-0.033 (0.019)	-0.022 (0.018)	-0.020 (0.016)
Hispanic Women	0.025 (0.021)	0.011 (0.015)	-0.012 (0.010)	0.001 (0.011)
Proportion of group in state labor force				
White women	1.889*** (0.358)	-0.097 (0.314)	-0.918* (0.378)	-0.702 (0.354)
Black women	1.514* (0.614)	-0.192 (0.688)	-1.693*** (0.465)	-1.402** (0.425)
Hispanic Women	-1.258 (0.912)	1.325 (1.073)	0.519 (0.988)	1.749* (0.827)
Industry employment in 000s	0.013 (0.021)	-0.009 (0.029)	0.001 (0.017)	0.011 (0.014)
State unemployment rate	-0.003 (0.003)	-0.007* (0.003)	-0.005 (0.003)	-0.003 (0.003)
Time trend	0.019** (0.007)	-0.010 (0.006)	-0.007 (0.006)	-0.010 (0.006)
Constant	-2.383*** (0.240)	1.025*** (0.272)	1.283*** (0.272)	1.448*** (0.285)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.896	0.859	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours, and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Table S14: Grievance Procedure by Employee Training

	White women	Black women	Hispanic women	Asian-American women
Sexual harassment grievance procedure	0.002 (0.028)	-0.047 (0.028)	-0.035 (0.024)	-0.057* (0.024)
Employee sexual harassment training	0.022 (0.085)	-0.033 (0.109)	-0.032 (0.098)	0.063 (0.115)
* both grievance procedure and employee training	-0.080 (0.081)	0.013 (0.113)	0.047 (0.104)	-0.051 (0.118)
Manager sexual harassment training	0.062* (0.026)	0.055* (0.023)	0.022 (0.024)	0.047* (0.019)
Manager general harassment training	-0.051 (0.027)	-0.045 (0.034)	-0.031 (0.029)	-0.033 (0.026)
Employee general harassment training	0.003 (0.031)	0.017 (0.037)	-0.005 (0.038)	-0.022 (0.031)
General harassment grievance procedure	-0.009 (0.033)	0.021 (0.032)	-0.009 (0.026)	-0.013 (0.022)
Proportion of women managers	3.078*** (0.107)	0.191 (0.110)	-0.179 (0.116)	-0.198 (0.100)
Count of formal HR policies ¹	-0.001 (0.006)	-0.007 (0.006)	-0.001 (0.006)	-0.006 (0.007)
Count of work-life programs ²	0.007 (0.016)	0.025* (0.011)	0.033* (0.013)	0.043** (0.015)
Diversity taskforce	0.103* (0.042)	0.219*** (0.054)	0.128* (0.054)	0.187** (0.055)
Diversity manager	0.071 (0.053)	0.127* (0.055)	0.163** (0.055)	0.114* (0.048)
Mentoring program	0.040 (0.065)	0.176* (0.070)	0.188* (0.076)	0.196** (0.066)
Diversity training	-0.025 (0.032)	-0.057 (0.052)	0.043 (0.044)	0.023 (0.048)
HR department	-0.095 (0.050)	-0.074 (0.037)	-0.105*** (0.027)	-0.100*** (0.027)
Legal department	0.118* (0.050)	0.002 (0.045)	0.031 (0.044)	0.037 (0.037)
Title VII lawsuit	0.053 (0.027)	0.037 (0.026)	0.004 (0.026)	-0.007 (0.020)
Affirmative action compliance review	0.054 (0.031)	0.021 (0.026)	0.043 (0.033)	0.067* (0.032)
Government contractor	0.008 (0.046)	-0.028 (0.038)	-0.026 (0.035)	-0.014 (0.037)
Proportion government contractors in industry	-0.476* (0.187)	-0.216 (0.187)	0.086 (0.144)	-0.142 (0.126)
Proportion of managerial jobs in establishment	-0.106 (0.260)	-4.317*** (0.448)	-4.672*** (0.409)	-4.590*** (0.444)
Employees (log)	-0.077** (0.026)	-0.646*** (0.033)	-0.701*** (0.041)	-0.713*** (0.042)

Table S14 Continued

Percent minorities in top management ³	-0.213 (0.406)	0.640 (0.347)	-0.237 (0.309)	-0.327 (0.353)
Percent women in top management ³	-0.065 (0.173)	0.126 (0.227)	0.013 (0.236)	-0.002 (0.205)
Proportion of focal group in core job	0.179* (0.069)	0.120 (0.174)	0.622** (0.192)	2.029** (0.670)
No managers from focal group	-0.275*** (0.044)	-0.653*** (0.022)	-0.536*** (0.026)	-0.584*** (0.038)
Proportion of group in industry workforce (log)				
White women	0.174* (0.074)	-0.024 (0.063)	0.008 (0.062)	-0.037 (0.063)
Black women	0.017 (0.026)	-0.033 (0.020)	-0.022 (0.018)	-0.020 (0.016)
Hispanic Women	0.025 (0.021)	0.011 (0.015)	-0.013 (0.010)	0.001 (0.011)
Proportion of group in state labor force				
White women	1.905*** (0.364)	-0.102 (0.314)	-0.915* (0.377)	-0.695 (0.354)
Black women	1.527* (0.615)	-0.195 (0.684)	-1.698*** (0.464)	-1.394** (0.431)
Hispanic Women	-1.241 (0.911)	1.321 (1.079)	0.514 (0.989)	1.758* (0.823)
Industry employment in 000s	0.014 (0.021)	-0.009 (0.029)	0.001 (0.017)	0.011 (0.014)
State unemployment rate	-0.003 (0.003)	-0.007* (0.003)	-0.004 (0.003)	-0.003 (0.003)
Time trend	0.019** (0.007)	-0.010 (0.006)	-0.007 (0.006)	-0.011 (0.006)
Constant	-2.286*** (0.243)	1.026*** (0.270)	1.282*** (0.271)	1.361*** (0.282)
Workplace fixed effects omitted	Included	Included	Included	Included
Interaction of time and industry	Included	Included	Included	Included
Interaction of time and state	Included	Included	Included	Included
Observations	18,266	18,266	18,266	18,266
R-squared	0.896	0.859	0.883	0.888

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05

¹ Includes hiring, promotion, and discharge guidelines; job descriptions; promotion ladders; performance evaluations; pay grade system; internal posting of jobs; and grievance procedure.

² Includes paid maternity leave, paid paternity leave, policy allowing flexible work hours, and top management support for work-family balance.

³ Percent was obtained in 10 years intervals (2002, 1992 and 1982). Values for intervening years were interpolated.

Robustness Analyses

A key challenge in analysis of non-experimental data is to account for heterogeneity that stems from non-random selection into the “treatment” (in our case, adopting a program). Heterogeneity may bias casual inference. Our model specification, with fixed effects for each establishment, time trends for each industry and state, and control variables that tap variance coming from organizational structures, labor pool composition, and economic and legal environment, is designed to minimize this possibility. We conducted two additional robustness tests (results available on request). First, we added binary variables as proxies for unspecified, unobserved events (CEO change, impending lawsuit, local news coverage) that may have caused employers to both implement new harassment programs and hire more (or fewer) women managers. For each policy adoption, we added such a proxy binary variable *T* equal to 1 at three and, separately, two years before policy adoption. We omitted post-adoption years and ran identical models to those presented in Table S3 (24, 25). We ran separate proxy models for each program (grievance procedure, manager training, and employee training). This approach offers a stringent test for selection bias. If *T* shows a significant effect in the same direction as the program effect, unobserved differences between program adopters and non-adopters may be responsible for observed policy effects. *T* is not significant for any of our program variables. This adds to our confidence that the observed relationships between diversity programs and managerial diversity are not spurious.

Second, program adopters may be different from non-adopters in ways that are not absorbed by the establishment fixed effects – perhaps adopters change faster than non-adopters in terms of both management fads and managerial demographics. We thus reran all analyses reported in the article, each time with only establishments that ever adopted a particular program. If the effects in Tables S3-S6 are due to differences between adopters and non-adopters, then program effects should disappear when we exclude non-adopters. The results of our “adopters-only” analyses are substantively similar to those in Table S3-S6.

SI Endnotes

1. Tomaskovic-Devey DD, *et al.* (2006) Documenting Desegregation: Segregation in American Workplaces by Race, Ethnicity, and Sex, 1966-2003. *American Sociological Review* 71(4):565-588.
2. Fox J (1997) *Applied Regression Analysis, Linear Models, and Related Methods* (SAGE Publishing, Thousand Oaks, CA).
3. O'Leary-Kelly AM, Bowes-Sperry L, Bates CA, & Lean ER (2009) Sexual Harassment at Work: A Decade (Plus) of Progress. *Journal of Management* 35(3):503-536.
4. Antecol H & Cobb-Clark D (2003) Does Sexual Harassment Training Change Attitudes? A View From the Federal Level. *Social Science Quarterly* 84(4):826-842.
5. Nye CD, Brummel BJ, & Drasgow F (2010) Too Good to Be True? Understanding Change in Organizational Outcomes. *Journal of Management* 36(6):1555-1577.
6. Buchanan NT, Settles IH, Hall AT, & O'Connor RC (2014) A Review of Organizational Strategies for Reducing Sexual Harassment: Insights from the U.S. Military. *Journal of Social Issues* 70(4):687-702.
7. U.S. Merit Systems Protection Board (USMSPB) (1995) Sexual Harassment in the Federal Workplace. Trends, Progress, Continuing Challenges. (U.S. Merit Systems Protection Board (USMSPB), Washington, D.C.).
8. Cortina LM, Fitzgerald LF, & Drasgow F (2002) Contextualizing Latina Experiences of Sexual Harassment: Preliminary Tests of a Structural Model. *Basic and Applied Social Psychology* 24(4):295-311.
9. Cortina LM, *et al.* (2002) What's Gender Got to Do with It? Incivility in the Federal Courts. *Law & Social Inquiry* 27(2):235-270.
10. Lim S & Cortina LM (2005) Interpersonal Mistreatment in the Workplace: The Interface and Impact of General Incivility and Sexual Harassment. *Journal of Applied Psychology* 90(3):483-496.
11. Shaffer MA, Joplin JRW, Bell MP, Lau T, & Oguz C (2000) Gender Discrimination and Job-Related Outcomes: A Cross-Cultural Comparison of Working Women in the United States and China. *Journal of Vocational Behavior* 57(3):395-427.
12. Shupe EI, Cortina LM, Ramos A, Fitzgerald LF, & Salisbury J (2002) The Incidence and Outcomes of Sexual Harassment Among Hispanic and Non-Hispanic White Women: A Comparison Across Levels of Cultural Affiliation. *Psychology of Women Quarterly* 26(4):298-308.
13. Sims CS, Drasgow F, & Fitzgerald LF (2005) The effects of sexual harassment on turnover in the military: Time-dependent modeling. *Journal of Applied Psychology* 90(6):1141-1152.
14. McLaughlin H, Uggen C, & Blackstone A (2017) The Economic and Career Effects of Sexual Harassment on Working Women. *Gender & Society* 31(3):333-358.
15. McLaughlin H, Uggen C, & Blackstone A (2012) Sexual Harassment, Workplace Authority, and the Paradox of Power. *American Sociological Review* 77(4):625-647.
16. Kalleberg AL, Knoke D, Marsden PV, & Spaeth JL (1996) *Organizations in America: Analyzing Their Structures and Human Resource Practices* (Sage Publications, Thousand Oaks, CA).

17. Kelly E (2000) Corporate Family Policies in U.S. Organizations, 1965-1997. Dissertation (Princeton University, Princeton, NJ).
18. Osterman P (2000) Work Reorganization in an Era of Restructuring: Trends in Diffusion and Effects on Employee Welfare. *Industrial & Labor Relations Review* 53(2):179-196.
19. Morgan SL & Winship C (2007) *Counterfactuals and Causal Inference: Methods and Principles for Social Research* (Cambridge University Press, Cambridge).
20. Vaisey S & Miles A (2014) What You Can—and Can't—Do With Three-Wave Panel Data. *Sociological Methods & Research* 46(1):44-67.
21. Reskin BF & Roos P (1990) *Job Queues, Gender Queues: Explaining Women's Inroads into Male Occupations* (Temple University Press, Philadelphia, PA).
22. Thurow LC (1975) *Generating Inequality* (Basic Books, New York).
23. Petersen T (1985) A Comment on Presenting Results from Logit and Probit Models. *American Sociological Review* 50(1):130-131.
24. Snyder LD (2003) Are Management-Based Regulations Effective?: Evidence from State Pollution Prevention Programs. (Regulatory Policy Program Working Paper RPP-2003-21. Center for Business and Government, John F. Kennedy School of Government, Harvard University, Cambridge, MA).
25. Heckman JJ & Hotz VJ (1989) Choosing Among Alternative Nonexperimental Methods for Estimating The Impact of Social Programs. *Journal of the American Statistical Association* 84(408):862-874.

* For a list of researchers using the EEOC data see <https://www.umass.edu/eeodatanet/researcher-search> (retrieved on 8-18-2018).

† Because log-odds (logit) is undefined at values of zero and 1, we substituted 0 with $1/2N_j$, and 1 with $1-1/2N_j$, where N_j is the number of managers in establishment j (Hanushek and Jackson 1977; Reskin and McBrier 2000). The results were robust to different substitutions for zero. We chose the one that kept the distribution uni-modal and closest to normal. To ensure that the substitution does not drive the findings, we include a binary variable for no group members in management.