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Meet the New Boss...Same as the Old Boss? Female Supervisors and Subordinate Career Prospects*

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Abstract

Whereas prior research has focused on women's access to managerial authority, an equally important question is the effect on subordinates' careers when they report to a female boss. One line of thought suggests that female bosses act as *change agents* by fostering the careers of female subordinates, whereas the *cog in the machine* perspective suggests that female bosses either willingly or are constrained to promote men's careers. Using data from the 2002 *National Study of the Changing Workforce*, analytic models of subordinates' perceived job-related support from supervisors and advancement prospects were developed. Results were consistent with the *cog in the machine* perspective in that in contrast to women, men received more job-related support and were more optimistic about their careers when they reported to a female supervisor. Yet, given the paucity of research on this topic, more research (especially longitudinal studies) is needed to fully understand how supervisors affect subordinates' careers.

Keywords

female managers; careers; gender

Because supervisors typically enjoy higher status, income, and autonomy, much research has examined sex differences in access to supervisory authority (Jacobs 1992; Reskin and McBrier 2000; Reskin and Ross 1992). Yet, a related and equally important question is the effect of reporting to a female supervisor on female subordinates' career prospects. That is, do female bosses mentor and sponsor female subordinates more than male subordinates?

Trade publications (eg., Roddick 2000; Wilson 2004), the popular press (e.g., Gutner 2006; Kantrowitz 2007), and many studies (e.g., Claes 1999; Fagenson 1993; Helgeson 1990) contend that women make better managers than men because they are more supportive leaders, they delegate more responsibility, and they foster the careers of their subordinates, especially the women who work under them. One study showed that firms perform better and capture larger market shares when they employ more women in management (Catatlyst 2007). Other analysts are more skeptical, arguing that when women do attain managerial

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authority, they typically occupy lower positions in the firm's hierarchy and lack the power to influence the working conditions and prospects of their subordinates (Smith 2002; Stainback

Given the provocative nature of this question, it is surprising that there is so little study of the effect of supervisor's sex on the rewards and prospects of their subordinates. As the review below will show, organizational behaviorists and industrial psychologists typically assess managers' values and behaviors to determine sex differences in leadership style, but rarely are subordinates asked to evaluate their boss' impact on their own careers. This is also true of research on supervisor-subordinate dyads, in which most of the research focused on how demographic traits affect supervisors' impressions of and evaluation of their subordinates. Inequality researchers focus more on patterns of segregation at different levels of the firm, and examine how individual and structural factors affect women's representation in management. Researchers have largely ignored the question of whether female managers influence the work experiences and career prospects of subordinates, and female subordinates in particular.

This paper addresses this gap in the literature. In reviewing the sparse research on gender and supervisory authority, I invoke Cohen and Huffman's (2007) useful analogy of characterizing female bosses as either *change agents* or as *cogs in the machine*. If female bosses are change agents, then female subordinates should enjoy enhanced career prospects, in contrast to female superiors who are cogs in the machine, having no effect on the careers of female subordinates, and may in fact focusing more on the career prospects of male subordinates. I draw from the 2002 *National Study of the Changing Workforce* to specify gender-specific analytic models of the receipt of job-related support from one's supervisor and perceived chances for advancement. Results from this study will add to the body of evidence attempting to adjudicate between these competing perspectives on women in management.¹

COMPETING PERSPECTIVES ON WOMEN IN MANAGEMENT

and Tomaskovic-Devey 2009; Vecchio 2002; 2003).

In order for female managers to affect the careers of female subordinates, they must attain powerful positions in firms and then act on their motivation to mentor and sponsor female protégés. Yet, still unsettled are questions of women's access to power and their motivation to help female subordinates, resulting in differing views on the career impacts of reporting to a female boss.

Female Superiors as Change Agents

Organizational behaviorists and industrial psychologists have long been interested in sex differences in leadership styles, typically designing studies in which corporate executives are surveyed about their leadership attitudes and behaviors (for overviews, see Eagly and Carli 2003; Powell and Graves, 2003). In this literature, men are often depicted as "command and control" leaders, who hoard information to provide themselves a competitive advantage within the firm, delegate little responsibility to subordinates, and who make decisions autocratically. By contrast, women are often portrayed as more collaborative managers who seek input from multiple stakeholders before making a decision, after which they delegate responsibility to subordinates in order to develop high-performers who can improve the firm's performance. Several studies report that women's distinctive leadership

¹This paper use the terms "manager" and "supervisor" synonymously, despite prior research showing that supervisors merely oversee the work of subordinates, while managers have control over the firm's fiscal and human resourses (Elliott and Smith 2004; Reskin and Ross 1992). In this study, data limitations preclude distinguishing whether subordinates report to a supervisor or a manager, and the synonymous use of the terms manager and supervisor in this paper reflects this fact.

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styles are not only beneficial to the career prospects of female subordinates, but also promote innovation within the firm and increase sales and market share (Catalyst 2007; Claes 1999; Goleman 2006; Helgeson 1990).

Other scholars take a different tack, arguing that by being a member of minority group, female bosses manage more empathetically because of their own experiences with sex discrimination in the workplace. For example, female managers are less likely than their male counterparts to consider potential pregnancy complications when hiring new personnel (Halpert, Wilson, and Hickman 1993). Similarly, because of their experiences as wives and mothers, female supervisors are more flexible and accommodating when female subordinates have conflicts between work and family responsibilities (Fagenson 1993). And, as women increased their presence in human resources management, they drew on these experiences to create more family-friendly working environments (Wallen 2002).

A related argument is that that female managers practice homosocial reproduction just as male managers do (Elliott and Smith 2004; Kanter 1977; McPherson, Smith-Lovin, and Cook 2001). That is, because of shared experiences and similar backgrounds, female supervisors prefer to hire female subordinates (Elliott and Smith 2004). This finding has been replicated in several work settings, including universities and colleges (Pfeffer, Davis-Blake, and Julius 1995), law firms (Gorman 2005), and California state agencies (Baron, Mittman, and Newman 1991). Finally, when superiors are the same sex and about the same age or older than their subordinates, they are more likely to befriend, mentor, and favorably evaluate their subordinates than superiors who differ from their subordinates by age and/or sex (for a review of this research, see Tsui and Gutek 1999: 62–71).

Yet, much of the research on women in management is concerned with hiring decisions and gender segregation in employment (for reviews, see Huffman, Cohen, and Pearlman; 2010; Stainback and Tomaskovic-Devey 2009), while most studies of boss-worker dyads ask corporate mangers to rate themselves on their relations with subordinates (for reviews, see Powell and Graves 2003; Vecchio 2003; 2002). With two exceptions, research generally ignores the effect of female bosses on subordinate job rewards. First, Hultin and Szulkin (2003) estimated a two-level hierarchical linear model and found that the firms' proportion of women among first-line supervisors reduced the size of the gender wage gap among subordinates (in contrast to the null effect on the gender wage gap of the firm's proportion of women at higher-level managerial positions). Second, Cohen and Huffman (2007) estimated a three-level hierarchical model, and found that non-managerial women earned higher wages when female managers occupied a higher relative standing in local industries. One limitation of both of these studies, however, is their analysis of aggregated data, and neither study identified whether subordinates *actually worked for* female superiors.

In sum, the *change agent* perspective contends that women who reach supervisory positions are motivated to enhance the careers of their female subordinates. The source of this motivation is attributable to several processes including, female bosses practicing homosocial reproduction in their preferences for female subordinates, overcoming shared discrimination experiences in the labor market, or socialization processes that produce gendered differences in managerial styles that benefit female subordinates. Tsui and Gutek (1999:62) describe the importance of this relationship:

An employee's relationship with his or her immediate supervisor is probably the most important relationship that employee has at work. Often, the supervisor represents the organization to the employee. The supervisor not only offers the employee the opportunity to do a job, he or she determines the quality of the employee's life at work. An employee may stagnate under one supervisor, ... but blossom under another to become a productive contributor."

As this passage suggests, immediate supervisors are crucial conduits for job-related information, feedback, and mentoring advice, thereby affecting subordinates' career prospects. If female superiors act as change agents in mentoring and sponsoring their female subordinates, the first hypothesis (H1) tested in this study is that: *the receipt of job-related support from supervisors and expectations for a promotion are positively related to reporting to a female superior, and these relationships will be stronger among female than male subordinates.*

Female Superiors as Cogs in the Machine

The twin assumptions of the *change agent* perspective are both called into question by those who view female supervisors as *cogs in the machine*. That is, supervisory women are either not powerful enough to affect the careers of their subordinates, or they have been selected to their managerial positions *because* they identify with powerful men at the apex of firms, a selection process that comes at the expense of female subordinates.

Research on labor market segregation research speaks to the first point on women's access to power. Segregation researchers assume a process of social closure by which male organizational elites use lawful bureaucratic rules and procedures to limit competition from women for organizational rewards. Social closure is facilitated by decision-makers' continued reliance on gender to make assumptions about individual productivity and likely career success, a process referred to as statistical discrimination (for reviews of the social closure argument, see Roscigno 2007; Tomaskovic-Devey 1993). Thus, despite a slight decline in segregation in recent decades, women are still more likely than men to be located in jobs at the lower rungs of the firm's hierarchy, i.e., jobs that more unstable, lower paid, and lacking in professional growth and advancement opportunities (Padavic and Reskin 2002; Reskin, McBrier, and Kmec 1999).

After segregating women into disadvantaged positions, the challenge for the organization is obtaining desired work behavior and commitment from those who occupy immobile jobs. Smith (2002) argued that organizations practice bottom-up ascription to solve this problem, by placing female superiors in charge of female-dominated workgroups. The dual benefits of this strategy are that organizations meet external legal pressures to diversify the ranks of management, and create the impression among subordinates that via hard work they can likewise advance to supervisory positions. Of course, the relevant question here is whether subordinates actually receive more effective mentoring from their female superiors, and are more optimistic about their career prospects as a result. Nevertheless, it is plausible that those in female-dominated workgroups are aware of their disadvantaged status, and that job placement more so than supervisory behavior determines their career prospects. If so, then a "weak version" of the *cog in the machine perspective* would hypothesize (H2a) that: *subordinates' perceptions of job-related support and their promotion chances are unrelated to supervisor's sex in models that control for subordinates' employment conditions (pay, sex composition of coworkers, etc.).*

Of course, many women do advance to top management positions where they have the power and influence to sponsor female protégés. But, another stream of research on gender differences in career trajectories suggests that these women were mobile because they emulated the attitudes and behaviors of male organizational elites. This argument builds on and extends Kanter's (1977) discussion of the persistence of gender stereotypes in the workplace.

Research in the expectation states tradition shows that in workgroups men's competence is assumed and they tend to emerge as leaders in the eyes of coworkers (Correll and Ridgeway 2003; Pugh and Wahrman 1983; Ridgeway 2001; Williams 1992). Because gender

stereotypes suggest that more so than men, women are focused on family life and/or interpersonal relationships at work, women's incompetence as leaders is assumed by others (Ridgeway 2001; Smith 2002). Female supervisors, then, are evaluated differently by their subordinates and superiors because of the incongruity between their lower status as women and their higher status as leaders (Eagley and Karau 2002). Indeed, men rate their female supervisors as less competent and trustworthy than their male supervisors (Brenner, Tomkiewicz, and Schein 1989; Wajcman 1996), and opinion polls show that male bosses are preferred over female bosses by a plurality of workers (Carroll 2006).

In response, many female supervisors demonstrate their competence by outperforming their male counterparts, as a way to gain the trust of subordinates and the confidence of superiors (Kanter 1977; Moore, Grunberg, and Greenberg 2005). Successful performance inevitably leads to bonding opportunities with male superiors in informal settings, which are also important for continued advancement within the organization (Fried 1998; Wacjman 1998). In these settings, the stereotyping and "boundary-heightening" processes that Kanter (1977) identified a generation ago have been found to be operating in more recent studies. That is, women's differences from men are exaggerated, and women are made to feel uneasy around their male colleagues and superiors (Yoder 1991; Williams 1992). Purcell (2007) interviewed employees of a progressive Midwestern firm, finding that top managers estimated that 60% of career success was based on job performance, and 40% came from bonding with (mostly male) superiors in informal settings. This put female junior executives at a career disadvantage, who were less enthused than their male counterparts with attending after-hours gatherings with superiors that typically involved watching sports, drinking beer, and other male-typed activities.

Further, organizational cultures often dictate that strivers need to prove themselves by working long hours, being a team player, and subjugating personal lives to the business imperatives of the firm (Fried 1998; Hoschschild 1997; Jacobs and Gerson 2004). Compared with men, this puts women at an additional career disadvantage because of their greater responsibility for family life. Many careerist women respond to these pressures by cutting back at work (Raabe 1996) or changing employers (Jacobs 1989). But, it is also plausible that after demonstrating the same (or stronger) work ethic as their male counterparts in order to get promoted, successful female managers may not be sympathetic to conflicts between work and family life among their subordinates. In seeking to emulate the drive, ambition, and work habits of male superiors, female bosses distance themselves from "women's issues" in the workplace and instead favor their male subordinates as way of furthering their own careers. Thus, by becoming "one of the boys," successful female bosses may be viewed by female subordinates as "queen bees" because their male coworkers get more attention and better job assignments from female bosses (Cooper, 1997; Ely 1994; Kanter 1977; Wajcman 1998). If so, a "strong version" of the cog in the machine perspective would hypothesize (H2b) that: reporting to a female supervisor will positively affect perceived mentoring and career prospects among men, but not women.

In developing these hypotheses, this section reviewed studies suggesting that interpersonal dynamics between individual workers and their coworkers and bosses occur over time. As is typical of most studies of labor market processes, this study relies on cross-sectional data to measure workers' perceptions of their supervisor's behavior and career prospects in multivariate statistical models. Thus, this study cannot definitively test for the causal processes underlying the hypotheses, but rather whether the analytic models produce findings that are consistent with outcomes predicted by the hypotheses. To the extent that outcomes are indicative of processes that typify work settings, this study contributes to an understanding of the subordinate's career impacts of reporting to a female boss. The next

section describes the data and measures used to test these contradictory hypotheses of the effects of female supervisors on subordinate career prospects.

DATA AND MEASURES

The Sample

The data for this study come from the 2002 *National Study of the Changing Workforce* (NSCW). Designed by the *Families and Work Institute*, this telephone survey (using random-digit dialing) examined issues pertaining to the work-family nexus (Bond et al. 2003). Ninety-eight percent of interviews were completed when the NSCW staff reached an employed adult (if a household contained more than one employed adult, the survey was conducted with the one who had the most recent birthday). Yet, the completion rate was estimated at 52 percent after estimating the number of potentially eligible households who never responded (i.e., after 50 call-backs, the phone was either never answered or always went to voice mail). The NSCW sample is representative of the labor force on demographic and economic traits when compared to the March supplement to the *Current Population Survey* (Bond et al. 2003).

The NSCW initially consisted of 2,810 wage and salary workers, but limits were placed on the analytic sample in order to test the hypotheses developed above. First, non-managerial workers were selected because: 1) subordinate views of superiors may change when subordinates are managers themselves; 2) the purpose of this analysis is to determine if the careers of female *subordinates* are enhanced by reporting to a female superior; and, 3) this sample limitation was also imposed in studies of the effects of women in management on the gender wage gap (Cohen and Huffman 2007; Hultin and Szulkin 2003), facilitating comparison of results with those of prior studies. The NSCW asked workers to report their job titles and usual duties, and responses were coded using 2000 Census occupation codes. After selecting non-managers, 2,415 workers remained in the analytic sample.

Second, Hakim (2002) contends that men are more career-oriented than women, and in part, this is manifested in women's greater propensity to work part-time when they enter the labor force. At the same time, segregation research shows that firms are more likely to reserve part-time and lower-paying jobs for women (Padavic and Reskin 2002). If employees desire a full-time job but cannot attain one, or they identify more with their roles as family caregivers than workers, this will affect perceptions of career prospects and potentially bias the relationships of interest in this paper. In addition, approximately seven percent of respondents worked multiple jobs. Not only might multiple job-holders differ from single job-holders in their career aspirations, but only a few of the measures in the analytic model specifically referenced the respondent's main job versus other jobs. Thus, for theoretical and practical reasons, the analytic sample was limited to full-time workers holding a single job, a restriction that increases the likelihood that women converge on men in their work commitment and career aspirations. After implementing these selection criteria, 1,738 respondents remained in the analytic sample.

Third, the measures of supervisor's traits and mentoring efforts were filtered on the question, "Is there one PARTICULAR person you think of as your immediate supervisor or manager -- someone who is directly over you?" A negative response produced missing data on the supervisor variables, yielding 1,546 cases available for analysis;² an additional 37

²Preliminary analyses suggest that many of those who could not name a single supervisor to whom they reported may be part of labor pool reporting to several supervisors; e.g., 42% of such women worked in clerical and service jobs, and 47% of men worked in production/repair jobs.

cases were omitted due to missing data, leaving a final analytic sample of 839 men and 670 women. Table 1 presents descriptive statistics on the analytic variables, by gender.

Dependent Variables

Two outcome measures were used in this study. First, a composite index tapped perceived *job-related support* from the supervisor. Four statements were presented to subordinates about job-related advice and support they received from their bosses (My supervisor or manager keeps me informed of the things I need to know to do my job well; ...has expectations of my performance on the job that are realistic; ...recognizes when I do a good job; ... is supportive when I have a work problem); responses were in Likert format (1 =strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree). The index was constructed as the mean of the four items ($\alpha = .80$); higher index scores indicated more job-related support from one's immediate supervisor.³ Second, *advancement opportunities* were measured in a single item, "How would you rate your own chance to advance in your organization" (1 = poor; 2 = fair; 3 = good; 4 = excellent). Of course, it is plausible that workers are more optimistic about their advancement prospect if they have previously been promoted by their employers, yet this proposition cannot be tested because the NCSW lacks a measure of prior promotions. Nevertheless, perceived advancement opportunities is an important indicator of workers' evaluation of their job situations, as other research shows that those who expect to get promoted are better organizational citizens, and more productive and satisfied workers (for a review, see Hodson 2001).

Supervisor Traits

The primary independent variable of interest in this analysis is a binary measure for reporting to a *female supervisor*; as Table 1 shows, 16 and 55 percent of men and women, respectively, report to a female supervisor. But, in addition, several other supervisor traits are included as controls in accordance with the literature reviewed above. For example, the organizational demography literature suggests that supervisors have more harmonious (contentious) relations with subordinates when they are older (younger) than them (Tsui and Gutek 1999). To account for this, one item in the NSCW asked, "Is your supervisor significantly older or younger than you are, or about the same age?" Respondents whose supervisors were *older* or *younger* than them were given scores of 1 on respective binary variables (0 scores were assigned to workers whose supervisors were about the same age). Other research shows that compared with their male counterparts, female supervisors are burdened by the assumption of incompetence, which may affect subordinate perceptions of mentoring and promotion chances. To control for this, a single Likert item stated, "My supervisor or manager is very competent in his or her job." Because of skewed responses, those who disagreed or strongly disagreed with the item were given a score of 1 on the binary measure supervisor is incompetent; 0 otherwise.

Demographic Controls

Given that ascriptive factors are likely to affect relations with superiors and promotion prospects, the model controlled for being a *minority* (1 = Black, Hispanic, or other; 0 = non-Hispanic white),*single*, or a*parent*. Human capital factors that are likely to determine career

³One possible limitation of this composite index is that supervisors support workers who *ask* for job- related advice and mentoring. Unfortunately, data limitations preclude testing this proposition, as the NSCW data lack information about subordinates asking for job-related advice and support from their bosses. Of course, to the extent that contemporary men and women are equally likely to seek job advice and information from their bosses, then the measure used in the analyses will be an accurate assessment of supervisor's support of their subordinates. Future research may want to compare male and female subordinates on how much they ask for and receive job-related support from their immediate superiors.

prospects include, *years of completed education*, and potential work experience, tapped by the respondent's *age*.

Workplace Controls

As prior research shows, career prospects are likely to be affected by working conditions. To account for this, the models controlled for *years of tenure* with the employer (logged to correct for skewness), a measure that taps the accumulation of firm-specific skills that could affect workers' career prospects. In addition, those who work long hours may get more mentoring from their bosses and/or expect a promotion, as should those whose pay is higher (Jacobs and Gerson 2004). In this analytic sample of full-time workers, working long hours was captured with a binary measure for *working 50+ hours per week*. Two-thirds of workers directly reported their *hourly wage* (before taxes, bonuses and over-time pay) on their jobs; for salaried workers, NSCW staff calculated hourly wage using respondents' reports of annual pay and usual hours worked. To correct for its rightward skew, the log of the hourly wage was computed.⁴

Prior research has also established that the nature of supervisor-subordinate relations is conditioned by occupation and industry (Smith 2002). Thus, a vector of four occupational binary measures, *professional or technical, sales, clerical,* and *service* were entered into the analytic models (the reference category consists of those in *production, operative, and repair* occupations). Similarly, firms that are governed by collective bargaining agreements typically create job ladders (Baron, Davis-Blake, & Bielby 1986), which likely affects subordinates' perceived relations with bosses and advancement prospects. Thus, workers who were *union members* received a score of 1 on a dummy variable; 0 otherwise. On a related point, some studies report that labor relations are more contentious in the private sector, and that women's promotion chances improve in the public and non-profit sectors of the economy (for a review, see Smith 2002). Thus, private sector employees were given a score of 0 and served as the reference category for those employed either in the *public* or *non-profit* sectors.

Finally, because large corporations tend to create job ladders for their employees (Baron et al. 1986) and hire more female managers (Reskin and McBrier 2000), the models controlled for firm size. The NSCW asked workers to report how many people worked for their employer (at all U.S. locations). Responses were grouped into 10 ordinal categories, and firm size was recoded to the category means (the top-coded value of firm size was set at 15,000 employees), and then logged to correct for its right-ward skew.⁵ Of course, firms are often reluctant to place female-typed jobs in promotion ladders (Baron et al. 1986), and Smith (2002) suggests that female supervisors are tapped to oversee the work of those in female-dominated jobs. To control for this, NSCW respondents were asked: "About what percentage of your coworkers are people of your sex?" The original responses indicate increasing token status among the respondent's coworkers (1 = 100% of coworkers, 2 = 75-99%, 3 = 50-74%, 4 = 25-49%, 5 = less than 25% but more than 0, and 6 = 0%). For men, increasing values indicate that one's work group is female-dominated, whereas this is true for women after the measure is reverse-coded. To get a measure of the percentage of coworkers who are female, the ordinal responses were further recoded to numeric values (responses indicating a range were recoded to the mid-points).⁶

⁴Approximately seven percent of respondents failed to report their wages, and were assigned their gender-specific means. The effect of this coding decision was investigated by re-estimating the models that included a binary control for mean assignment on the wage measure. The control for mean assignment was insignificant in predicting the outcome measures and had no discernible impact on the results; thus, the binary control for imputed wage was dropped from the model.

⁵In supplementary analyses, firm size was captured by two binary measures (*small firms* of less than 50 employees or *medium-size firms* of 50–499 employees, relative to *large firms* of 500 or more employees). This categorical specification of firm size had no effect on the results shown in Tables 2 and 3.

RESULTS

Supervisor's Job-Related Support

Table 2 presents OLS metric effects on supervisors' support of subordinates, by gender. Model 1 enters all covariates described above into a fully-specified model, and they combine to explain 31 and 25 percent of the variation in supervisor's job-related support for men and women, respectively. Model 2 allows some of the predictors of mentoring to vary by the gender of the supervisor. To arrive at a specification of model 2, slope-dummy interaction terms between *female supervisor* and all covariates were computed, and entered one-by-one into the gender-specific equations shown in model 1. Any interaction term that was significant at the .10 level in *either* the male or female equation, was retained for inclusion in model 2. Ultimately, four interaction terms were included in model 2, increasing the explanatory power of the models by 1 and 1.4 percent for men and women, respectively. The *t*-values test for gender differences in the determinants of job-related support; the significance of variable effects and *t*-tests were evaluated in one-tailed tests because the literature review indicated that many determinants of job-related support are expected to vary by the gender of the subordinate.

Turning first to demographic predictors, most are unrelated to perceived mentoring from one's supervisor with the exception of minority status among women. In model 1, minority status is unrelated to perceived mentoring (b = .032; ns), but model 2 reveals that this is because perceived mentoring varies by the demographic nature of the superior-subordinate dyad. That is, minority women get more job-related support from male supervisors (main effect slope = .153; p < .05), and less support from female supervisors (interaction effect slope = -.212; p < .05). Blair-Loy and Wharton (2002) suggest that other things equal, female bosses are invested with lower levels of real and symbolic power within organizations, reducing their access to firm resources, and if so, their subordinates may report lower-levels of job-related support as a result.

Among the workplace controls, several variables affect perceived mentoring differently by gender. First, tenure (logged) has a negative effect on men's receipt of supervisor support, but not women's. If a long record of service is associated with the accumulation of firmspecific skills, senior men may not need to be mentored by their female supervisors. Second, men who work 50 or more hours per week also report lower levels of mentoring from one's supervisor, perhaps because men who put in long hours may be working at optimal effort and efficiency, and do not need additional support from their supervisor. By contrast, women who work long hours report higher levels of mentoring from their supervisors. Although marital and parental status are controlled, it may be that women's greater responsibility for family life increasingly conflicts with work obligations when women work 50+ hours per week (Jacobs and Gerson 2004), necessitating more job-related advice and support from one's supervisor. Third, in model 1, hourly wage has no effect on perceived mentoring among men, but model 2 shows that higher-paid men get marginally more mentoring from their male supervisors, and less support from female supervisors (b = -.244; p < .05). Like senior men and/or those who work long hours, highly-paid men may also think that they are working at optimal efficiency, and may not need mentoring from female supervisors.

Other workplace controls affect women's receipt of supervisor support, but not men's. For example, women receive less job-related support from their supervisors in larger firms and/

⁶Thirty-six respondents gave the "don't know" response to this question and they were recoded to the original modal response value of 2 (75–100%) on the composition measure. Alternatively measuring the sex composition of workgroups with a vector of dummy variables had no effect on the results shown in Tables 2 and 3.

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or when employed in the non-profit sector, in contrast to the null effects of these covariates among men. Similarly, model 2 shows that when women work in jobs increasingly comprised of other women, they report no difference in mentoring from male supervisors (b = -.001; ns), but get more support from female supervisors (b = .004; p < .05). This result could be viewed as evidence for the *change agent* perspective if other things equal, women's work efforts are devalued when they work in female-dominated jobs, and their supervisors try to counter this by offering more job-related support.

Turning to supervisors' covariates, men and women alike get less support from incompetent supervisors. This result should be considered suggestive, however, because in cross-sectional models it is not clear whether bosses demonstrate their incompetence in their lack of support for subordinates, or whether bosses initially fail to support their subordinates and are *then* judged to be incompetent by their subordinates.

Regarding the variable of interest, model 2 suggests that men who report to female supervisors get significantly more career support (b = .637; p < .05), in contrast to the insignificant female-supervisor effect among women. These results support the strong version of the *cog in the machine* hypothesis (H2b) suggesting that female supervisors pay more attention to male than female subordinates, as a way of conforming to organizational expectations to advance men's career prospects. Of course, a comparison of the slopes and standard errors for the female supervisor covariate across models 1 and 2 shows that they are much larger in model 2 that includes four covariate-times-female-supervisor interaction terms. Typically, interaction terms correlate highly with component measures, increasing the inefficiency of parameter estimates in the component measures. Nevertheless, in model 1 the findings are at least consistent with the weak version of the *cog in the machine* perspective (H2a); i.e., the effect of reporting to a female supervisor is insignificant in the present of workplace controls. Indeed, if the workplace controls are omitted from the model (results not shown), the slope effect for reporting to a female supervisor is significantly larger among men (b = .11 p < .05) than among women (b = .01; ns). This suggests that when men report to a female supervisor they also tend to have shorter tenures and work fewer hours, two factors that result in men getting more mentoring from their supervisors. When these significant work-related determinants of job-related support are controlled as they are in model 1, the effect of reporting to a female supervisor is reduced to insignificance. In any case, Table 2 provides no support for hypothesis 1 that female supervisors act as change agents, by providing more career advice to their female than male subordinates.

Chance for Advancement

Table 3 presents OLS determinants of perceived advancement chances, by the gender of the subordinate.⁷ As in the analysis of supervisor support, a fully-specified model 1 is presented first, and model 2 presents the results of a final model after collecting significant interaction terms (at the .10 level) among either men or women when they were serially entered into the model-1 equations. Because a supervisor's information, feedback, and advice likely affect advancement prospects, the outcome measure in Table 2 is included as a predictor in the models shown Table 3. The covariates combine to explain about one-fifth of variation in promotion chances in model 1, adding the interaction terms in model 2 increased the explanatory power of the equations by 1–2 percent.

Turning first to workers' demographics, age is the only predictor that negatively affects promotion prospects for men and women alike, and irrespective of their supervisors' sex.

⁷Results were substantively similar when the ordinal measure of perceived advancement prospects was analyzed using ordered logit analysis.

The remaining demographic traits vary with supervisor's sex in determining perceived advancement chances. For example, the interactions in model 2 show single and/or highly educated men are pessimistic about their promotion prospects when they report to female (but not male) supervisors. Among women, minorities are more optimistic about their advancement prospects when reporting to male supervisors (b = .239; p < .05) and less optimistic when their boss is female (b = -.385; p < .05).

Among the work-related predictors, women in sales occupations are similarly are more optimistic about their advancement prospects when reporting to male supervisors (b = .591; p < .05) and less optimistic when their boss is female (b = -.445; p < .05). Yet, pay has a different effect on promotion expectations by the gender of subordinate and superior. That is, irrespective of their supervisor's gender, men are increasingly optimistic about their advancement chances as their pay increases (b = .129; p < .05), whereas the positive effect of pay on women's advancement prospects is limited to those who report to female bosses (b = .348; p < .05). If this constitutes support for the *change agent* perspective, it is noteworthy that female subordinates must receive high pay before their career prospects are enhanced by reporting to a female boss, suggesting that few subordinate women are likely to benefit from exposure to a change agent.

Furthermore, the findings regarding supervisor's covariates tend to support the strong version of the cog in the machine hypothesis (H2b). That is, men are more optimistic about their advancement chances when their boss is female, a relationship that is significantly stronger than the null sex-of-supervisor effect among women. Furthermore, the sex-ofsupervisor effect on men's advancement prospects is net of the level of support they receive from their supervisors. On this covariate, men and women alike are more optimistic about their advancement prospects as they receive more mentoring from their supervisors. The findings in Table 3 suggest that after mentoring activities are taken into account, there are additional ways in which female supervisors advance the careers of male subordinates. If, as segregation researchers suggest, organizations tend to favor males over females when considering who to promote, then female supervisors may be conforming to organizational expectations when making job assignments that foster subordinates' mobility and when deciding who to recommend for promotion after observing men's performance in these job assignment. Albeit somewhat speculative, the interpretations of these findings are consistent with research on the gendered nature of organizations and gender differences in career trajectories (for reviews, see Acker 2006;Martin 2003;Padavic and Reskin 2002).⁸

SUMMARY AND DISCUSSION

After much research on women's attainment of supervisory authority, little is known about how female bosses affect the careers of their subordinates. The *change agent* perspective contends that female bosses will take a special interest in and foster the careers of their female subordinates. The *cog in the machine* perspective emphasizes that organizational structures, cultures, and policies remain pervasively male-oriented, and that careerist female managers will have to conform to organizational preferences to promote the careers of male subordinates. Drawing a 2002 national sample of non-managerial workers, men exceeded

⁸The findings in Tables 2 and 3 support the argument that among non-managerial employees, men's careers are enhanced when reporting to a female supervisor, but women's are not. Yet, in selecting the analytic sample, Census codes were used to identify those in non-managerial occupations, and those in professional or technical positions may have substantial authority on the job (which may in turn, affect mentoring relations with their bosses and their promotion chances). To determine whether the results are influenced by the presence of these workers in the sample, the models were re-estimated after excluding professional and technical workers (reducing the size of the analytic sample to 691 men and 464 women). In this more limited sample, the variable effects on outcome measures and the explanatory power of the models were substantively similar to those shown in Tables 2 and 3 (results available on request).

women in receiving job-related support from female supervisors and were more optimistic about their promotion chances as a result. Although cross-sectional data precludes drawing firm conclusions regarding processes that occur over time, the results are consistent with the notion that female managers are cogs in the machine, in that female supervisors have little or no effect on the career prospects of female subordinates, and instead foster men's career prospects.

This conclusion contradicts the popular view in the media and among industrial psychologists and organizational behaviorists that women are distinctive leaders who will improve the fortunes of their female subordinates. But, as the literature review noted, many of these proponents of the *change agent* perspective tend to draw supporting evidence from biographies of and interviews with successful female executives and entrepreneurs. The "case concept" method of analysis (and instruction in business schools) tends to focus on the unique aspects of women's personalities and career choices, and downplay how gendered organizational structures and practices constrain women's effectiveness as leaders. And, it is important to note that organizational behaviorists who do concern themselves with issues of sampling, measurement, and multivariate modeling, have likewise been unable to produce empirical support for the notion that women act as change agents vis-à-vis their female subordinates (e.g., see Powell and Graves 2003; Vecchio 2003, 2002).

This study's support for the notion that female bosses are *cogs in the machine* also appears to contradict studies showing that as *change agents*, more managerial women in the firm or in the local labor market reduces the gender gap in pay (Cohen and Huffman 2007; Hultin and Szulkin 2003). Although prior studies differ methodologically from this study and did not control for whether a worker *actually* reported to a female supervisor, it is also possible to reconcile their findings with this study's findings. That is, more female managers in the firm (and by extension, in the local labor market) typically results from firms seeking to demonstrate compliance with anti-discrimination legislation (Roscigno 2007; Tomaskovic-Devey and Stainback 2007). The most effective way to meet government mandates on equality is to hire more women as workers and supervisors (Stainback and Tomaskovic-Devey 2009), and pay both groups wages that are similar to their male counterparts. Cohen and Huffman (2007) further argue that when women occupy top management positions in local occupational niches, market competition ensures that proximate occupational niches also have more women in management and a smaller gender pay gap. Thus, without actually observing whether workers reported to a female supervisor, it is possible to statistically demonstrate a smaller gender gap in pay at the individual level as women's share of management increases at a higher contextual level.

Yet, as social closure and segregation research shows, getting a job that pays equal wages to men and women is one matter, and women *staying* in those jobs is quite another. That is, when women attain jobs paying wages similar to men's, informal workplace dynamics are unleashed that seek to restore men's more privileged position in the workplace. These processes include isolation and exclusion from informal networks and professional growth opportunities (Purcell 2007; Reskin et al. 1999), ratcheting up job demands to determine if women will put work ahead of family life as men do (Fried 1998; Hochschild 1997), and harassment of a general and/or sexual nature (Acker 1990; Roscigno 2007). The cumulative effect of these informal processes is that women's work effectiveness is compromised, increasing the likelihood that they will either quit their jobs or be fired.

Given gendered informal dynamics that are pervasive in the workplace, some contend that female bosses either lack the power to impede organizational preferences to foster men's careers, or that female bosses agree with negative stereotypes of female workers (Cooper 1997; Deaux 1985; Wacjman 1998). And of course, female supervisors may themselves be

the victims of informal processes to marginalize them and compromise their effectiveness (Kanter 1977; Fried 1998). In either case, when subordinates report to female supervisors, they may not perceive them to be any different from male bosses who give male subordinates more attention and more chances for promotion as way to advance their own careers. If so, female subordinates will be more likely to quit out of frustration or be fired, even though they may hold jobs paying wages similar to men's. Jacobs (1989) characterized this process as one of "revolving doors," in which women enter high-paying male-typed jobs only to exit these jobs later. This dynamic could reconcile the apparent inconsistency between studies reporting an association between more female managers and a lower gender wage gap, and this study's finding that men's, but not women's, career prospects are enhanced when reporting a female superior.

Of course, this study's primary limitation is its cross-sectional design, and more longitudinal research is needed to fully understand the effects of female managers on subordinate career trajectories. For example, one study showed that individual turnover depended on whether a large minority presence in the workgroup was due to minorities entering the job versus majority group members leaving the job (Sørensen 2004). Similar processes may be operating in the superior-subordinate relationship. That is, established subordinates whose male supervisor is replaced by a female supervisor may have different notions of supervisor's job support and their own advancement prospects than subordinates who are hired into a workgroup with an established female supervisor. Similarly, Kanter (1977) argued long ago that male mangers tend to work their way up by holding a series of jobs that increasingly affect the firm's profits (e.g., sales or marketing), whereas women tend to take the "wrong route" to a high-status job (e.g., via human resources or public relations jobs). This suggests that longitudinal data on workers needs to be supplemented with information on the work histories of supervisors to determine if the "track record" of the boss affects the career trajectories of subordinates.

Despite these caveats, this study is the first representative analysis of how subordinate career prospects are affected by *directly* reporting to a female supervisor. The results are consistent with much research showing that workplaces are pervasively male-oriented in their customs, policies, and structures, and that female bosses are no different from male bosses in reacting to organizational preferences to invest in men's careers more so than women's. Additional research is needed on the organizational mechanisms fostering or impeding women's ascendance to supervisory positions in order to assess progress toward the goal of affording men and women equal opportunity to exercise managerial authority. Yet, irrespective of what future studies of managerial attainment show, those who expect that female bosses will dramatically change the nature of superior-subordinate relations are likely to be disappointed.

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Table 1

Descriptive Statistics on Analytic Variables, By Gender of Subordinate, Full-time Non-managerial Workers, 2002 NSCW

			Men (n=839)	1=839)	Women (n=670)	(n=670)
	Min	Max	М	s.d.	W	s.d.
Dependent Variables						
Supervisor job support*	-	4	3.45	0.63	3.51	0.58
Promotion chances *	1	4	2.66	1.02	2.54	1.03
Supervisor Traits						
Super is female [*]	0	-	0.16	0.37	0.55	0.50
Super is older*	0	1	0.40	0.49	0.33	0.47
Super is younger *	0	-	0.17	0.38	0.24	0.43
Supervisor is incompetent	0	-	0.12	0.32	0.11	0.31
Demographic Controls						
Minority	0	1	0.21	0.41	0.19	0.39
Single*	0	1	0.27	0.44	0.38	0.49
Parent*	0	1	0.47	0.50	0.41	0.49
Years of education*	6	20	13.09	2.89	13.85	2.66
Age^*	18	63	40.14	11.56	42.46	11.69
Workplace Controls						
Years of tenure (logged)	0	3.81	1.78	0.97	1.77	0.96
Works 50+ hours per week *	0	1	0.38	0.49	0.22	0.41
Hourly wage $(logged)^*$	1.14	6.48	2.85	0.61	2.68	0.58
Professional/technical occupation*	0	1	0.22	0.41	0.36	0.48
Sales occupation *	0	-	0.08	0.27	0.12	0.33
Clerical occupation*	0	1	0.08	0.27	0.27	0.44
Service occupation	0	1	0.10	0.30	0.11	0.31
Union member	0	1	0.22	0.41	0.19	0.40
Public sector*	0	-	0.17	0.38	0.26	0.44

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	Min	Min Max	Μ	s.d.	Μ	s.d.
Non-profit sector *	0	1	0.03	0.18	0.14	0.35
Firm size (logged)	2.56	9.62	2.56 9.62 4.64 1.94	1.94	4.65	1.81
Females as % of coworkers *	0	100	27.07	23.44	69.54	25.10

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* Significant gender diffèrence in means at p < .05 (2-tailed test).

Table 2

OLS Determinants of Job-related Support from Supervisor, Full-time Non-managerial Workers, 2002 NSCW (N=839 men; N=670 women)

			Model 1					Model 2		
	Μ	Men	Wo	Women		M	Men	W0I	Women	
	q	s.e.	q	s.e.	t -value	q	s.e.	q	s.e.	t- value
Intercept	3.783	0.156 *	3.707	0.191	0.31	3.711	0.158 *	3.732	0.221 *	-0.08
Demographic Controls										
Minority	-0.047	0.047	0.032	0.053	-1.13	-0.079	0.052	0.153	0.077 *	-2.50 *
Single	0.039	0.049	0.000	0.042	09.0	0.042	0.049	0.004	0.042	0.59
Parent	0.039	0.042	0.005	0.043	0.56	0.039	0.042	0.007	0.043	0.54
Years of education	-0.014	0.009	-0.001	0.010	-0.92	-0.013	0.009	-0.001	0.010	-0.87
Age	0.000	0.002	0.002	0.002	-0.60	0.000	0.002	0.002	0.002	-0.57
Workplace Controls										
Years of tenure (logged)	-0.066	0.024 *	0.023	0.026	-2.54 *	-0.069	0.024 *	0.024	0.026	-2.66 *
Works 50+ hours per week	-0.078	0.039 *	0.095	0.050 +	-2.70 *	-0.073	0.039 +	0.100	0.050 *	-2.71 *
Hourly wage (logged)	0.042	0.038	-0.060	0.039	1.87 +	0.075	0.040^{+}	-0.040	0.052	1.75 +
Profession/technical occupation	-0.035	0.064	0.103	0.079	-1.35	-0.043	0.064	0.111	0.079	-1.52
Sales occupation	0.019	0.076	-0.047	0.081	09.0	0.013	0.076	-0.050	0.081	0.57
Clerical Occupation	-0.040	0.077	-0.011	0.070	-0.28	-0.041	0.076	0.003	0.070	-0.43
Service Occupation	-0.022	0.069	0.036	0.084	-0.54	-0.050	0.070	0.041	0.084	-0.83
Union member	-0.065	0.049	-0.082	0.056	0.23	-0.059	0.049	-0.081	0.056	0.28
Public Sector	0.088	0.055	-0.013	0.056	1.28	0.099	0.055 +	-0.007	0.056	1.35
Non-profit sector	0.052	0.110	-0.115	0.064 +	1.31	0.045	0.110	-0.120	0.064 +	1.30
Firm size (logged)	-0.004	0.011	-0.029	0.012 *	1.59	-0.003	0.011	-0.028	0.012 *	1.58
Females as % of coworkers	0.000	0.001	0.001	0.001	-0.36	0.000	0.001	-0.001	0.001	0.50
Supervisor Traits										
Super is female	060.0	0.056	-0.007	0.044	1.35	0.637	0.306	-0.139	0.228	2.03 *
Super is older	-0.038	0.046	0.024	0.053	-0.89	-0.047	0.046	0.016	0.053	06.0-
Super is younger	-0.054	0.058	0.014	0.055	-0.86	-0.055	0.058	0.022	0.054	-0.96

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			Model 1					Model 2		
	Men	ľ	W0I	Women		Μ	Men	W0	Women	
	q	s.e.	q	b s.e.	t -value	q	b s.e.	p	b s.e.	<i>t</i> - value
Super is incompetent	-1.033	0.060 * -0.892	-0.892	0.064 *	-1.61	-1.089	0.067 *	-1.023	0.101 *	-0.55
Intreraction of Female Supervisor with:	th:									
Super is incompetent						0.218	0.218 0.142	0.233	0.131 +	-0.08
Minority						0.095	0.121	-0.212	0.101	1.94 +
Hourly wage (logged)						-0.244	-0.244 0.098 *	-0.043	0.069	-1.68 +
Females as % of coworkers						0.002	0.002 0.002	0.004	0.002 *	-0.61
${ m R}^2$	0.309	60	0.251			0.0	0.319	0.2	0.265	
Sy.x	0.534	34	0.508			0.5	0.532	0.5	0.505	
* p <.05 (2-tailed test)										
+										
p < .05 (1-tailed test)										

Table 3

OLS Determinants of Promotion Chances, By Gender of Subordinate, 2002 NSCW (N=839 men; N=670 women)

			Model 1					Model 2		
	Μ	Men	W01	Women		Μ	Men	10M	Women	
	<i>q</i>	s.e.	q	s.e.	t -value	ą	s.e.	q	s.e.	t- value
Intercept	1.044	0.352 *	0.465	0.447	1.35	0.919	0.354 *	0.748	0.504	0.28
Demographic Controls										
Minority	0.114	0.081	0.040	0.098	0.71	0.139	0.089	0.239	0.145 +	-0.59
Single	-0.131	0.084	0.054	0.078	-1.79 +	-0.076	0.091	0.136	0.115	-1.44
Parent	-0.022	0.072	0.074	0.081	-0.97	-0.021	0.072	0.065	0.080	-0.79
Years of education	-0.020	0.015	-0.005	0.019	-1.46	-0.007	0.017	0.007	0.024	-0.47
Age	-0.011	0.004 *	-0.012	0.005 *	0.66	-0.010	0.004 *	-0.012	0.005 *	0.35
Workplace Controls										
Years of tenure (logged)	-0.057	0.041	-0.095	0.048 *	1.02	-0.057	0.041	-0.083	0.048 +	0.41
Works 50+ hours per week	0.073	0.068	0.068	0.094	-0.98	0.081	0.068	0.052	0.094	0.25
Hourly wage (logged)	0.153	0.066	0.064	0.073	2.54 *	0.129	0.070 +	-0.122	0.099	2.05 *
Profession/technical occupation	0.032	0.110	0.229	0.148	0.33	0.057	0.110	0.225	0.149	-0.91
Sales occupation	0.192	0.130	0.347	0.151 *	0.29	0.155	0.135	0.591	0.187 *	-1.89 +
Clerical Occupation	-0.028	0.132	0.142	0.130	-0.98	-0.012	0.132	0.140	0.132	-0.81
Service Occupation	0.304	0.118 *	0.056	0.156	0.58	0.255	0.122 *	0.046	0.159	1.04
Union member	0.168	0.085 *	-0.009	0.105	-1.61	0.186	0.085 *	0.003	0.104	1.36
Public Sector	0.059	0.095	0.116	0.104	-0.89	0.069	0.096	0.138	0.104	-0.49
Non-profit sector	0.023	0.189	0.038	0.120	-0.61	0.079	0.189	0.025	0.119	0.24
Firm size (logged)	-0.008	0.018	0.016	0.022	0.21	-0.010	0.018	0.015	0.022	-0.91
Females as % of coworkers	-0.001	0.002	0.001	0.002	0.60	-0.002	0.002	0.001	0.002	-1.33
Supervisor Traits										
Job-related support from super	0.553	0.060	0.646	0.073 *	-0.94	0.552	0.060	0.636	0.073 *	-0.89
Super is female	0.242	0.097 *	-0.081	0.082	2.28 *	1.540	0.598 *	-0.482	0.473	2.65 *
Super is older	0.071	0.079	0.030	0.098	0.32	0.056	0.079	0.038	0.098	0.14

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			Model 1					Model 2		
	Z	Men	Woi	Women		M	Men	Wo	Women	
	q	s.e.	q	b s.e.	t -value	q	s.e.	q	b s.e.	t- value
Super is younger	-0.073 0.100	0.100	-0.114 0.102	0.102	0.02	-0.073 0.099	0.099	-0.127 0.101	0.101	0.38
Super is incompetent	-0.100 0.120	0.120	0.078	0.136	-1.09	-0.100	0.120	0.053	0.135	-0.85
Intreraction of Female Supervisor with:	or with:									
Minority						-0.313	0.218	-0.385	$0.191 \\ ^{*}$	0.25
Single						-0.374	0.196^{+}	-0.166	0.153	-0.84
Years of education						-0.087	0.032 *	-0.024	0.031	-1.42
Hourly wage (logged)						0.016	0.183	0.348	0.137 *	-1.45
Sales occupation						0.530	0.530 0.384	-0.445	0.228 +	2.18 *
${ m R}^2$	0.2	0.209	0.1	0.185		0.0	0.220	0.2	0.206	
p < .05 (2-tailed test)										
p < .05 (1-tailed test)										