Occupational Sex Composition and the Gendered Availability of Workplace Support

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OCCUPATIONAL SEX COMPOSITION AND THE GENDERED AVAILABILITY OF WORKPLACE SUPPORT

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This study examines how occupational sex segregation affects women's and men's perceptions of the availability of workplace support. Drawing on theories of gender and empirical studies of workplace tokenism, the author develops the concept of an occupational minority. Although the notion of tokenism was developed to describe processes at the level of the workplace, the author explores how being a minority at the occupational level affects workers. Using nationally representative data, she finds that in mixed-sex occupations, women report higher levels of workplace support than men; in male-dominated occupations, they perceive relatively low levels of support. Men, by contrast, perceive relatively high levels of workplace support in female-dominated occupations. That is, being a member of a numerical minority in one's occupation is an advantage for men and a disadvantage for women.

Keywords: *organizations; race; class; gender; work/occupations*

The relationship between the sex composition of workplaces and the day-to-day interactional experiences of workers has long been of interest to feminist scholars (Jacobs 1989; Kanter 1977). Kanter (1977) argued that those in a minority in their workplaces—tokens—are often isolated and offered little support by their coworkers. One's perception of access to workplace support is an interactional-level phenomenon, and "social-relational" interactions are influenced by cultural understandings of gender (Ridgeway and Correll 2004, 510). In turn, these perceptions are

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linked to hegemonic cultural beliefs about gender that are made salient by the characteristics of the workers' occupations—especially sex composition. Occupational sex composition can activate gender beliefs and consequently increase or decrease the salience of gender in interaction (Ridgeway and Correll 2004). And this can affect perceptions of workplace support. Previous work has not examined the consequences of sex composition of occupations (rather than workplaces) on gendered patterns of perceptions of workplace support. Perceptions of workplace support are important because they are linked to career mobility, job satisfaction, access to workplace information, and health outcomes (de Jonge et al. 2001; Jacobs 1989; Johnson and Hall 1988; Kanter 1977).

Kanter (1977) defined tokens as women and men in the numerical minority in the workplace. I draw on this notion to introduce the concept of an *occupational minority.* An occupational minority is a worker who is a numerical rarity in his or her occupation, for example, men who are nurses or women who are engineers. This concept of occupational minority differs from the classic usage of *token,* which is typically defined at the firm or workplace level (Kanter 1977). Occupational minorities, by contrast, are minorities at the national (occupational) level regardless of the actual sex composition of their workplaces. As such, the concept of occupational minority explicitly theorizes the workplace effects of cultural ideals associated with working in a male- or female-dominated occupation independent of organizational characteristics. I argue that a worker's occupation is imbued with meanings about the identity of the worker and the appropriateness of the worker's role in that occupation—and that these meanings can have negative or positive implications for perceptions of interactions and support among workers.

This definition of an occupational minority overlaps in many cases with that of the token. For example, a woman working as a professor in a physics department likely works with mostly men, and most physics professors in the United States are men. This woman is both an occupational minority and a token. However, it is problematic to assume that occupational sex composition is always mirrored at the firm level (Roos and Reskin 1992). A worker may work in a firm with other workers mostly of his or her own sex, although most workers in his or her occupation are of the opposite sex, for example, a woman surgeon in a medical practice with other women physicians. However, despite her firm-level sex similarity to her coworkers, the woman surgeon's workplace experience will likely have many elements in common with that of the woman physics professor. In both work environments, coworkers draw on gendered cultural ideals about which

types of occupations are appropriate for which sex. These ideals—which mark women as less suited for careers as physics professors or surgeons—may in turn mean that both women perceive that they lack access to work-relevant information and assistance from others in their workplaces.

IMPORTANCE OF PERCEPTIONS OF WORKPLACE SUPPORT

Access to work-relevant information and assistance is critical to workplace success, and workers who do not feel that they have access to workplace support experience negative outcomes. Perceptions of low levels of access to workplace support contribute to personal dissatisfaction with work; low retention of women in high-paying, high-status, male-dominated occupations; and blocked organizational mobility for women (de Jonge et al. 2001; Jacobs 1989; Kanter 1977; Pierce 1995). In addition, low levels of perceived workplace support are associated with negative physical and mental health outcomes (Blackmore et al. 2007; Johnson and Hall 1988; Loscocco and Spitze 1990).

Perceptions of access to information and assistance in the workplace also reflect actual levels of access to information and assistance in the workplace. For example, women in the minority in the workplace have less access to workplace support from coworkers and supervisors than white men in the same occupations (Kanter 1977; Pierce 1995; Roth 2006). Actual levels of access to workplace information and support are very important to organizational mobility. Workers who do not have access to workplace information and support have limited access to promotions, raises, and benefits (Kanter 1977; Pierce 1995; Roth 2006). In addition, limited workplace mobility for women in the minority contributes to the glass ceiling.

THE RELATIONSHIP BETWEEN OCCUPATIONAL SEX COMPOSITION AND PERCEPTIONS OF WORKPLACE SUPPORT

Occupational characteristics, especially the sex composition of occupations, are likely predictors of perceptions of workplace support. To understand this relationship, I draw on scholarship in three main areas: (1) gendered expectations of workplace support, (2) stereotypes about the competence and likeability of women, and (3) workplace social networks. This research

demonstrates, among other things, that women experience social backlash when they violate social norms and that stereotypes about women have implications for interactions. These processes become even more pronounced in contexts in which gender is highly salient, such as highly sex-skewed occupations (Ridgeway and Correll 2004). In addition, women are likely to have lower expectations of positive workplace experiences than men.

Gendered Expectations for Workplace Support

Broadly speaking, women have a lower sense of entitlement and lower expectations in the workplace than do men (Graham and Welbourne 1999; Major and Konar 1984). For example, women tend to negotiate less than men, partially because they feel they are not entitled to higher compensation (Babcock and Laschever 2003). Women also report higher levels of job satisfaction than men—even though on average their pay and working conditions are not as good—because they have lower expectations for the quality of their jobs than men (Clark 1997). Similarly, studies that utilize respondents from a broad range of occupations find that women perceive higher levels of workplace support than men (Roxburgh 1996; Turner and Marino 1994). Given this, I predict that women in relatively mixed-sex occupations will perceive higher levels of workplace support than men.[1] This prediction is consistent with the finding that women tend to have lower expectations and a lower sense of entitlement in the workplace more generally. Thus, women should perceive higher levels of workplace support than men, all else being equal.

Occupational Category as Gendered

Women who are in the minority by sex at the firm level perceive exclusion from workplace support, information, and assistance (Kanter 1977; Pierce 1995; Roth 2006). I investigate whether information about occupational category alone can also establish whether women will experience similar effects—regardless of the sex composition of workers' immediate work environments. Occupational-minority women should experience the cultural effects of being a woman in a male-dominated field, even if at the firm level their workplace is relatively more mixed or female dominated.

Occupations are meaningful categories, with members sharing tastes, preferences, and experiences (Weeden and Grusky 2005). As such, occupational categories are important parts of individuals' understanding of themselves and others. Occupational categories are also gendered. Occupations are often seen as more appropriate for men than for women (or vice versa),

and this is especially salient when workers are in the minority (Kanter 1977). Workers in occupations atypical for their sex are anomalies. Occupational-minority workers may be seen by coworkers and others as violating prescriptive behavioral norms simply by virtue of the fact that they are in nontraditional occupations (Heilman et al. 2004; Pierce 1995). Thus, women in occupations that are male dominated at the national level violate social norms because they work in occupations that are gender typed as masculine in the larger culture.

People who do not, or cannot, adhere to gendered ideals of behavior are held accountable and are socially penalized for violating prescriptions of appropriate behavior (West and Zimmerman 1987). Women in workplace settings who challenge traditional gender stereotypes are especially subject to personal hostility (Heilman et al. 2004; Kanter 1977; Pierce 1995; Rudman and Glick 1999, 2001). Importantly, occupational-minority women are aware that they are violating gendered norms of behavior and expect to be treated differently by people as a result (Pierce 1995; West and Zimmerman 1987). Thus, women occupational minorities may perceive less workplace support because they understand that they will be held socially accountable for violating social norms.

The perception among occupational-minority women that they do not receive support in the workplace and that they do not get information and assistance from supervisors and colleagues likely arises from the fact that they are actually subjected to social penalties for violating ideals of appropriate behavior for women by working in male-dominated occupations. Research shows that both men and women are likely to see women who violate social norms in the workplace as not likeable—and that coworkers will withhold workplace support due to this dislike (Heilman et al. 2004; Kanter 1977; Pierce 1995; Roth 2006). In sum, I predict that occupational-minority women will perceive lower levels of workplace support than other workers both because they expect to be treated differently and because they actually are treated differently.

Workplace Integration into Social Networks and Stereotypes about Competence

When workers are not well integrated into workplace networks, they do not have access to information and assistance. Women and men have differential levels of access to social networks and mentors. In general, women are disadvantaged by these differences and have less access to opportunity, influence, and information in the workplace (Brass 1985; Ibarra 1992; Pierce 1995; Smith-Lovin and McPherson 1993). Occupational-minority

women are especially disadvantaged. Women who are occupational minorities are relatively less integrated into workplace social networks because of negative stereotypes about the status and competence of women in nontraditional occupations paired with workers' preferences for affiliation with high-status others.

Workers prefer affiliation with high-status or especially competent others, and occupational-minority women are stereotyped as less competent and seen as lower status than men coworkers. Occupational-minority women face doubts from their coworkers about their competence because day-to-day work tasks in male-dominated occupations are typically gender typed as the kinds of tasks at which men are more competent (Ridgeway 1997; see Britton 2000 for a more in-depth discussion of this issue). Thus, stereotypes that women in male-dominated occupations have relatively low levels of competence help to explain why occupational-minority women encounter low levels of support in the workplace.

Status characteristics theory offers particular insight by demonstrating that there are widely held cultural beliefs that men are more status worthy, influential, and competent than women (Correll and Ridgeway 2003). That is, ceteris paribus, men are seen as higher status and more competent in the workplace than women (Correll and Ridgeway 2003). Occupational-minority women are especially disadvantaged in their access to workplace support because this belief is stronger in situations in which gender is especially salient, such as in male-dominated occupations. To the degree that workers prefer to form networks with high-status others, occupational-minority women will have fewer opportunities to create networks based on biased beliefs about their lower levels of competence and status.

In addition, network ties of all kinds are more often established among people who have similar personal characteristics (McPherson, Smith-Lovin, and Cook 2001). Even though women occupational minorities do not necessarily work in environments in which they are in the minority by sex (e.g., the woman surgeon discussed above), they are likely to move between environments with varying sex compositions. And these women will often encounter a majority of opposite-sex colleagues at times that are especially important to occupational mobility and networking—for example, sales and business trips and conferences (Kanter 1977; Pierce 1995). In addition, even if the majority of their day-to-day coworkers are women, it is likely that their supervisors are men. For example, a woman surgeon who works with mostly other women surgeons and nurses is likely supervised by a chief of surgery who is a man. Her ability to gain workplace support from affiliation with a supervisor who is a man will be compromised to the degree that he demonstrates an in-group preference for affiliation with

subordinates who are men. In summary, occupational-minority women have compromised access to network connections because of stereotypes about the competence and status of women in male-dominated occupations and preferences for affiliation with high-status and similar others. Occupational-minority women are likely to perceive that they are receiving relatively low levels of help, support, information, and listening from coworkers and supervisors due to this compromised access to network connections.

Occupational-Minority Men

In general, violating gender norms by working in a female-dominated occupation does not result in the same social sanctions of men in the workplace that women occupational minorities experience (Pierce 1995). For example, to the degree that coworkers and supervisors are uncomfortable with men's violating gender norms, they will tend to be pushed higher into organizational ranks and into leadership positions that are seen as appropriate for men (Williams 1995). Hence, men who are occupational minorities are likely to perceive relatively high levels of workplace support. Recent work by Wingfield (2009) has suggested that this process may be racialized however—Black men who are occupational minorities may not receive the same benefits and status as their coworkers who are white men.

In addition, occupational-minority men do not experience the problems with isolation from workplace networks experienced by occupational-minority women. First, occupational-minority men are likely to have the characteristic of sex in common with supervisors (Pierce 1995; Williams 1995)—and white men are also likely to share the characteristic of race. Thus, to the degree that supervisors prefer to affiliate with in-group others, white occupational-minority men are likely to have relatively high levels of access to supervisors and consequently relatively high levels of perception of workplace support. Second, occupational-minority men are typically welcomed by women coworkers, perhaps because they are seen as bringing status to female-dominated occupations (Correll and Ridgeway 2003; Gatta and Roos 2005; Pierce 1995; Williams 1995).

Summary

I predict that in relatively mixed-sex occupations, women will perceive higher levels of workplace support than men perceive. Drawing on work on sex differences in job satisfaction and pay satisfaction, I suggest that this may be based on women's low levels of feelings of entitlement (Babcock and Laschever 2003; Clark 1997; Graham and Welbourne

1999; Major and Konar 1984). In sex-skewed occupations, this default explanation of women's low level of entitlement is overcome by the relatively hostile environment for occupational-minority women as well as the relatively welcoming environment for white occupational-minority men. I predict occupational-minority men will perceive higher levels of access to workplace information and assistance than occupational-minority women. As such, the relationship between worker sex and workplace support across the full range of sex compositions of occupations (0 to 100 percent women) is not straightforward. I expect a curvilinear relationship between the sex composition of an occupation and perceived workplace support. The relationship will be different for men than for women—with both lines being curvilinear but in opposite directions.

DATA AND METHOD

I analyze data from the first wave of the National Survey of Midlife Development in the United States (MIDUS) (Brim et al. 2000). The MIDUS data were collected in 1995 and cover a variety of topics related to work, health, and midlife development. Respondents were drawn from a random-digit-dial, nationally representative sample of noninstitutionalized, English-speaking adults between the ages of 25 and 74, selected from working telephone banks in the contiguous United States. The survey was administered in two parts: an initial telephone interview and a follow-up written questionnaire. Seventy percent of those contacted by phone agreed to be interviewed and were also sent a survey within a week of participating in the phone interview. Eighty-seven percent of these participants returned the mail-in survey, yielding a combined response rate of 61 percent ($.70 \times .87 = .61$). The analytic sample ($n = 1{,}808$) is approximately 60 percent of the full sample and includes only respondents who had data on all of the relevant measures. This includes respondents who were currently working for pay, answered at least one item on the index measuring perceived support in the workplace, and had been coded for having a current occupation. All analyses employ a sample weight that adjusts for differences in probability of selection and differential nonresponse to increase the representativeness of the sample (Brim et al. 2000).

Dependent Variable: Perceived Support at Work

This index comprises five items measuring perceived support from coworkers and supervisors (Bosma et al. 1997). The items are how often

the respondent feels she or he (1) gets help and support from coworkers, (2) is listened to by coworkers about work-related problems, (3) gets information she or he needs from supervisors and superiors, (4) gets help and support from immediate supervisors, and (5) is listened to by supervisors about work-related problems. Responses are measured from 1 (*never*) to 5 (*all of the time*) ($\alpha = .90$). Items are summed and divided by 5, and higher values on the index represent higher levels of perceived support. If a respondent responded to fewer than five items, the available items were summed and divided by the number of available items for that respondent.

Independent Variables

The primary independent variables are sex of the worker and the proportion of women in the occupation. Sex is a dichotomous variable (*woman* = 1). The proportion of women in the respondent's occupation is coded as the actual proportion of women, according to nationally representative data. The occupation of each respondent reported in the MIDUS data is linked with a measure that indicates the number of women who reported being in the respondent's occupation in 1995 Current Population Survey data (using three-digit occupational codes). The resulting measure was used to compute the proportion of women in each respondent's occupation in 1995.

Other Variables

In my analyses, I test for the specific relationship between perceived workplace support, the sex of the worker, and the sex composition of the occupation. I control for other variables that may affect perceived support in the workplace and thus bias the parameters.

Occupation-level characteristics. To adjust for the effects of occupational characteristics that may affect perceived support in the workplace, I include characteristics of workers in the occupation as well as occupational skill requirements. Occupation-level characteristics of workers are derived using three-digit occupational codes from Current Population Survey data. These characteristics are the proportion of workers in the occupation who are college graduates, working part-time, and white as well as the average weekly earnings of workers in the occupation. I also control for measures of gendered occupational skill requirements derived from the O*NET 3.1 database by Cha (2009). The measures were originally introduced by England and Kilbourne (1989) and modified by Grusky and Levanon (2008). They document the degree to which occupations require math,

analytical, technical, verbal, and nurturance-communal skills as well as physical strength and authority. I also include a measure of the extent to which the workplace is physically demanding or unpleasant (e.g., unclean conditions) (disamenities). These items measure the degree to which an occupation requires these skills (or in the case of disamenities, the degree to which a workplace was physically demanding or unpleasant) based on assessments by workers in the occupation, experts, or England (1992). For more detail about how these items are measured, see England (1992, 128-48).

Individual-level characteristics. I adjust for variables at the individual level using the MIDUS data. Three race dummy variables are included in the analyses (Black, Asian, and Other; white is the omitted category). Three education dummy variables are also included in the analyses (less than high school, high school or GED, and some college; college degree or greater is the omitted category). Economic instability is a dummy variable—whether there ever was a time in the past five years when the respondent did not have a telephone in his or her home or apartment (1 = *yes*). Parental status is coded as a dummy variable; respondents who have children younger than six in the household are coded 1. The control variables include a dummy variable indicating whether the respondent supervises at least one person on the job.

Three measures of whether the respondent is especially likely to seek support and perceives high levels of support outside the workplace are included in the models. If I find an effect of sex while controlling for propensity to seek or perceive support, then this effect is likely not due to essentialist notions of women as simply more socially needy, and more likely to seek information, than men. The first two of these variables are constructed as the mean of Likert-type scale agreements with the relevant statements. They are indices ranging from 1 to 4, wherein a 4 indicates higher levels of advice seeking or self-sufficiency. The two measures of support seeking are advice seeking ("I like to get advice from others before making a decision"; "When I'm upset about something, I feel better after I talk it over with others"; and "I prefer to make decisions without input from others"; $\alpha = .61$) and self-sufficiency ("I don't like to ask others for help unless I have to," "I would rather deal with my problems by myself," "Asking others for help comes naturally for me," and "I don't let others know when things aren't going well for me"; $\alpha = .68$). The measure of perceptions of support outside the workplace is the average number of hours per month that the participant reports he or she (or family members

living with him or her) receives unpaid assistance from four categories of the participant's friends and family: parents, in-laws, grandchildren or grown children, and other family members or close friends ($\alpha = .58$).

The respondent's perception of gender discrimination is also measured. Respondents were given a list of negative life events (such as being "fired from a job") and asked whether they had ever experienced one of these events due to discrimination. They were then asked on what personal characteristic this discrimination was based. If a respondent reported that he or she had experienced at least one incident of discrimination, and that incident was based on gender, then gender discrimination is coded as 1.

The final six control variables are all constructed as the means of Likert-type scale agreements with the relevant statements. The first five measures are indices that range from 1 to 4, wherein a 4 indicates higher levels of the measure. First, personality measures based on inventories measuring the "Big Five" conceptualization of personality are included (Lachman and Weaver 1997, 3). Again, these measures were included to minimize the possibility of essentialist explanations for differences in perceived workplace support between women and men, that is, to rule out the possibility that men and women simply have different personalities—differences that explain differences in perceptions of workplace support. Respondents were asked how much each of the adjectives described them. The five personality dimensions are extraversion (outgoing, friendly, lively, active, talkative; $\alpha = .78$), neuroticism (moody, worrying, nervous, calm; $\alpha = .74$), conscientiousness (organized, responsible, hardworking, careless; $\alpha = .58$), agreeableness (helpful, warm, caring, softhearted, sympathetic; $\alpha = .80$), and openness to experience (creative, imaginative, intelligent, curious, broad-minded, sophisticated, adventurous; $\alpha = .77$).

The final control variable is the current level of positive affect ($\alpha = .91$) (Mroczek and Kolarz 1998). Respondents may be more likely to perceive higher levels of support when they experience higher positive affect. Respondents were asked how much of the time during the past 30 days they felt "cheerful," "in good spirits," "extremely happy," "calm and peaceful," "satisfied," and "full of life" on a scale from 1 (*all of the time*) to 5 (*none of the time*), and items were recoded so that higher scores reflected higher levels of positive affect.

With this set of control variables, if I find a significant effect, it is most likely not due to required occupational skills, average levels of pay, education, work hours, or racial composition of the occupational category. In addition, significant effects are not likely due to individual race/ethnicity, parental status, economic instability, being a supervisor, sensitivity to

discrimination, likelihood of seeking or perceiving support, personality traits, or the current level of positive affect.

Analysis Strategy

There are two possible analytic strategies for measuring the sex composition of occupations: categorical (e.g., defining occupational minorities as workers who are in the numerical minority at 15 percent or less, as Kanter's [1977] classic work on tokens originally suggested) and continuous (using all possible levels, from 0 to 100 percent women). I present analyses using both approaches but use a continuous measure in the main regression analyses because this strategy does not impose an arbitrary cutoff and allows for intuitive analyses across the full spectrum of sex composition of occupations.

In the main models, the perceived level of workplace support is regressed on the proportion of women in the occupation of the respondent. To estimate a curvilinear relationship, the square of the proportion of women in the workplace is included. Earlier work using a similar, although more narrow, measure of workplace support and a smaller data set reveals the need to test for a curvilinear relationship to fully understand the relationship between perceived workplace support and sex composition (South et al. 1982). The hypothesized difference between being an occupational-minority man and an occupational-minority woman is modeled as an interaction between the sex of the respondent and the squared proportion of women in the occupation (this model also includes a lower-order term in which the sex of the respondent is interacted with the proportion of women in the occupation). That is, the main models test for the relationship between perceived workplace support, sex of the worker, and sex composition of the occupation—while simultaneously testing for the possibility that the relationship between perceived workplace support and sex of the worker may be different at different levels of sex composition of occupations.

RESULTS

Descriptive Overview

Approximately half of the respondents in the sample are women. Women in the MIDUS data report higher levels of workplace support (3.73) than men (3.58), which is consistent with previous research. In addition, women in the MIDUS data are much more likely than men to report an incident of gender-based discrimination (30 percent of women compared to 6 percent

of men). Finally, men are more likely to be supervisors than women (54 percent versus 40 percent).

Table 1 contains descriptive statistics for the variables measured at the occupational level.

Women in the MIDUS data are more likely to be in occupations composed of primarily women than are men. Men are more likely to be in occupations with higher average earnings, and women are more likely to work in occupations in which a higher proportion of people work part-time. Women are more likely to be in occupations that require higher levels of verbal and nurturance-communal skills; men are more likely to be in occupations that require higher levels of physical strength and authority as well as math, analytical, and technical skills.

Perceptions of Workplace Support

The primary goal of this article is to explore how women's and men's perceptions of access to work-related information, help, and support from supervisors and coworkers in the workplace vary according to the sex composition of their occupations. To examine this question, it is first important to establish baseline differences in perceived support in the workplace by the sex of the worker, without considering the sex composition of the occupation.

To do this, I regressed perceived access to workplace support on the sex of the respondent (controlling for 15 characteristics of the respondent and 12 occupation-level characteristics). Results indicate that women report higher levels of support in the workplace than men report ($b = .154$, $p \leq .01$) (see Table 2, model 1). This shows that net of the relevant characteristics measured by the control variables, women's scores on the scale of workplace support are .15 points higher on a 1 to 5 scale than men's.

Do occupational-minority men and occupational-minority women perceive different levels of workplace support? Do occupational minorities perceive different levels of workplace support than workers in more sex-balanced occupations? Figures 1 and 2 illustrate the same basic results using two approaches to conceptualizing occupational minorities: a continuous measure of occupational sex composition and a 10 percent occupational-minority cutoff. I present the mean levels of perceived support using a 10 percent occupational-minority cutoff (see Figure 1) before turning to regression analyses that use a continuous measure.

Figure 1 presents the mean levels of perceived workplace support at three points: when women constitute less than 10 percent of the occupation, when women constitute greater than 90 percent of the occupation, and when

TABLE 1: Means and Standard Deviations of Occupation-level Variables for Full Analytic Sample and by Gender

	Men		*Women*		*Total Sample*	
	Mean	*Standard Deviation*	*Mean*	*Standard Deviation*	*Mean*	*Standard Deviation*
Occupational characteristic						
Proportion of women in occupation	0.30	0.23	0.65	0.26	0.47	0.30
Proportion of workers in occupation who are college graduates	0.41	0.28	0.43	0.29	0.42	0.29
Average weekly earnings of workers in occupation	647.22	216.39	514.38	213.35	583.01	224.89
Proportion of workers in occupation who work part-time	0.15	0.08	0.23	0.11	0.19	0.10
Proportion of workers in occupation who are white	0.87	0.07	0.85	0.07	0.86	0.07
Occupational skill measure						
Strength	0.13	1.04	–0.17	0.81	–0.01	0.95
Disamenities	0.26	0.94	–0.30	0.58	–0.01	0.83
Math	0.07	1.02	–0.02	0.84	0.03	0.94
Analytical	0.13	0.99	–0.14	0.87	0.00	0.95
Authority	0.09	0.98	–0.09	0.92	0.00	0.95
Technical	0.29	0.99	–0.31	0.57	0.00	0.87
Nurturance-communal	–0.16	0.85	0.20	0.80	0.01	0.84
Verbal	0.01	1.04	0.06	0.88	0.03	0.96

SOURCE: National Survey of Midlife Development in the United States data; 1995 Current Population Survey data; O*NET 3.1.
NOTE: The components of the occupational skill measures indices are standardized around a mean of zero so that each item contributes equally to the index. This is why in the full sample, the means of these scales are roughly zero (see Cha 2009).

TABLE 2: Regression of Perceived Support in the Workplace on Proportion of Women in Occupation and Sex of Respondent

	Model 1	*Model 2*	*Model 3*
	Sex	*Sex and Sex Squared*	*Full Model*
Main effect			
Woman respondent	0.154**	0.162**	–0.082
	(.052)	(.054)	(.160)
Proportion of women in occupation		–0.180	–0.722
		(.409)	(.489)
Proportion of Women in Occupation × Woman Respondent			1.283
			(.661)
Proportion of women in occupation–squared		0.111	0.800
		(.352)	(.514)
Proportion of Women in Occupation–Squared × Woman Respondent			–1.295*
			(.640)
Control variable			
Education (omitted category = graduated college or other professional degree)			
Some grade school to some high school	0.013	0.011	0.009
	(.107)	(.107)	(.107)
GED or graduated high school	0.103	0.102	0.103
	(.062)	(.062)	(.062)
Some college (no bachelor's degree)	0.068	0.067	0.070
	(.054)	(.054)	(.054)
Supervisor	0.136**	0.136**	0.139**
	(.045)	(.045)	(.045)
Ever felt discriminated against based on gender	–0.058	–0.058	–0.056
	(.052)	(.053)	(.053)
Good mood	0.193**	0.193**	0.195**
	(.032)	(.032)	(.032)
Race (omitted category = white)			
Black	0.191*	0.193*	0.188*
	(.079)	(.078)	(.078)
Asian	0.141	0.137	0.133
	(.139)	(.139)	(.134)
Other	0.130	0.132	0.131
	(.109)	(.110)	(.109)
No phone in past five years	–0.217	–0.219	–0.222*
	(.113)	(.113)	(.113)
Any children younger than six	–0.037	–0.037	–0.034
	(.050)	(.050)	(.050)

(continued)

TABLE 2: (continued)

	Model 1	*Model 2*	*Model 3*
	Sex	*Sex and Sex Squared*	*Full Model*
Intercept	2.393**	2.483**	2.513**
	(.409)	(.433)	(.435)
R^2	.1002	.1004	.1030
N	1,808	1,808	1,808

NOTE: Numbers in parentheses are robust standard errors. All analyses control for occupation-level variables—proportion of college graduates, average weekly earnings, proportion of part-time workers, proportion of white workers, strength, disamenities, math, analytical, authority, technical, nurturance, and verbal—and all analyses control for individual-level personality traits—neuroticism, extraversion, contentiousness, openness, and agreeableness. All analyses also control for individual-level self-reported level of self-sufficiency, advice seeking, and perceived support from friends and family.
*$p \leq .05$. **$p \leq .01$ (two-tailed).

women constitute between 10 percent and 90 percent of the occupation. The highest level of perceived workplace support is reported by occupational-minority men at 3.84 ($n = 12$) (see the black bar on the far right side of Figure 1). This is relatively high compared to men in more mixed-sex occupations at 3.58 ($n = 672$). The lowest level of perceived workplace support is reported by occupational-minority women at 3.48 ($n = 16$) (see the white bar in the middle of Figure 1). This is relatively low compared to women in more mixed-sex occupations at 3.72 ($n = 652$). The 10 percent cutoff is an arbitrary division, and the sample sizes of some groups are very small. Nevertheless, this figure suggests that occupational-minority men have the highest levels of perceived workplace support, while occupational-minority women have the lowest levels. In addition, the same trend holds at another set of cutoff points: when women constitute less than 20 percent of the occupation, when women constitute greater than 80 percent of the occupation, and when women constitute between 20 percent and 80 percent of the occupation (analyses not shown).

I use ordinary least squares regression to test these relationships over the full range of proportions of women in an occupation. I regress the perceived level of workplace support on the squared proportion of women in the workplace interacted with sex (controlling for sex, proportion of women in the workplace, squared proportion of women in the workplace,

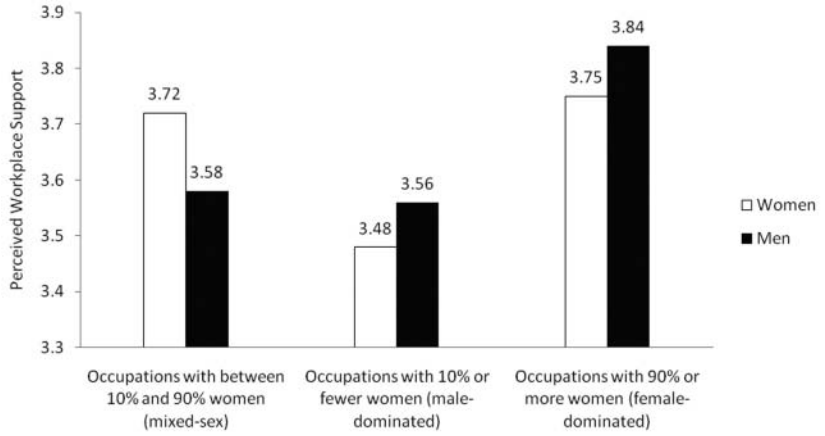

Figure 1: Mean Level of Perceived Workplace Support at 10 Percent Cutoff Points

NOTE: Occupational-minority women are represented by the white bar in the middle of the figure, and occupational-minority men are represented by the black bar at the right side of the figure.

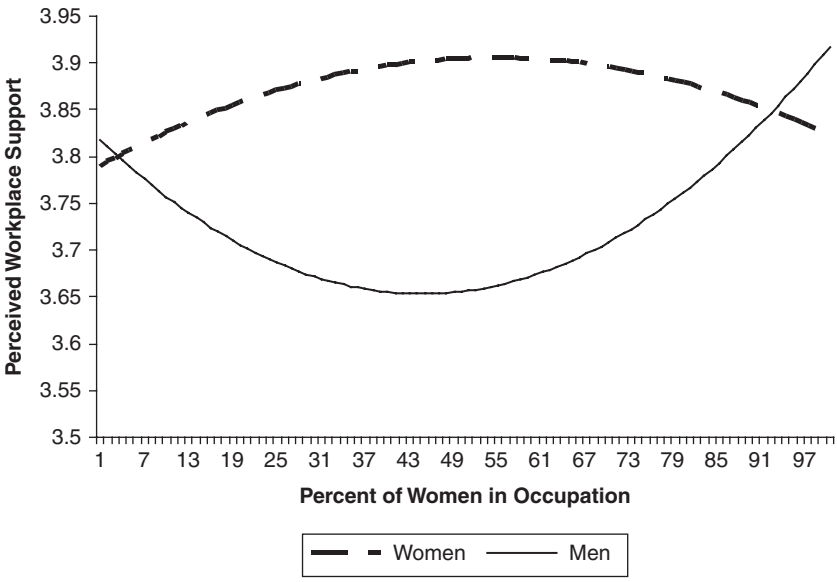

Figure 2: Perceived Level of Workplace Support by Percentage Women

15 characteristics of the respondent, and 12 occupation-level characteristics) (see Table 2, model 3).[2] The coefficient associated with the interaction term between the squared proportion of women in the occupation and sex indicates that the difference between men and women is statistically significant ($b = -1.295$, $p \leq .05$).[3] This coefficient demonstrates two important aspects of the relationship between perceived support, sex of the worker, and sex composition of the worker's occupation. First, the relationship between occupational sex composition and perceived support is dependent on the sex of the worker. Second, the relationship between the sex composition of the occupation and perceived support is in the form of a curve.

These relationships are best illustrated in Figure 2, which provides a visual representation of the predicted values of perceived workplace support across proportions of women in the workplace from model 3.

Figure 2 demonstrates that in occupations with skewed sex compositions, men perceive higher levels of support than women. As can be seen by the dashed line on the left side of the figure, women who are occupational minorities perceive lower levels of support both than their coworkers who are men and than women in more mixed-sex occupations. Conversely, as can be seen by the solid line on the right side of the figure, occupational-minority men perceive higher levels of support both than their coworkers who are women and than men in more mixed-sexed occupations. In addition, as illustrated by the middle of the figure, in relatively mixed-sex occupations, women perceive a higher level of support than men.

There is also a significant and positive effect on perceptions of workplace support for Black respondents (see Table 2, model 3) ($b = .188$, $p \leq .05$). It is difficult to determine what this means in the absence of analyses that control for the racial composition of the occupation of the respondent. It may be, as recent work has suggested, that workplace interactions and outcomes are shaped by the intersections of race and sex—for example, racial minority men who are also occupational minorities may not gain the same status and benefits as their counterparts who are white men (Wingfield 2009).

DISCUSSION AND CONCLUSION

This article provides evidence that both the sex composition of an occupation and the sex of a worker are associated with the worker's perceived level of workplace support. Importantly, my analyses indicate that the relationship between perceived workplace support and the sex composition

of a worker's occupation is not linear. That is, the relationship between perceived support and occupational sex composition is different at different levels of sex segregation in an occupation. In addition, the analyses provide evidence that the sex of a worker affects the relationship between perceived workplace support and the sex composition of a worker's occupation. As such, analyses provide evidence that there are occupational-minority effects on perceptions of important measures of workplace support. These findings provide evidence that that sex composition of the occupational category alone can establish whether workers will experience effects of being in the minority at the occupational level—regardless of the sex composition of the workers' immediate work environment.

In addition, this study provides evidence that we should consider minority status at both the occupational and the firm level. This broad conceptualization of minority status has implications in terms of what can be done at the firm level to create a more hospitable work environment for women who are tokens. For example, many businesses and universities hire women into divisions where there are very few women in an attempt to overcome the token effects described by Kanter (1977) and others (Pierce 1995; Roth 2006). However, this article provides evidence that occupational category itself may be a predictor of perceptions of workplace support. This implies that occupational sex segregation may drive workplace interactions even if the workplace is more sex balanced than the occupation. As such, this study suggests that there is work to be done at the occupational level if we want to further diminish the cultural effects of being a woman working in an occupation in which she is in the minority by sex at the national level. For example, even if a hospital hires equal numbers of women and men surgeons, stereotypes about the competence and likeability of women surgeons will likely be activated by the occupation-level sex composition of this occupation. This study provides further and unique evidence that to reduce workplace gender inequality, sex segregation should be addressed at the national level as well as at the firm level.

This study also gives rise to interesting questions that cannot be answered with the MIDUS data. Which matters more in terms of workplace support: sex composition at the firm level or at the occupational level? What do the classic studies of tokens document: firm-level sex-composition effects or occupation-level sex-composition effects (Kanter 1977; Pierce 1995; Roth 2006; Williams 1995)? Future studies utilizing data that contain both occupation-level and firm-level measures could address the question of which factor (occupation- or firm-level sex composition) is more powerfully associated with perceived workplace support.

However, in the absence of these data, I have provided evidence that occupational sex composition alone can yield important information about perceived levels of workplace support.

This research also raises questions about other outcome variables that may vary with the sex of the worker and the sex composition of the occupation. For example, perceptions of job satisfaction or other measures of organizational commitment may vary in a similar manner. In addition, these perceptions of workplace support, satisfaction, or commitment may have consequences in terms of turnover among women in male-dominated occupations. Furthermore, similar processes may be at work in other minority groups. For example, workers in the minority by race or ethnicity in an occupation may report especially low levels of workplace support when occupational composition is taken into account.

In addition to the findings regarding occupational minorities, I find evidence among workers in more sex-balanced occupations that expectations matter in terms of perceptions of workplace support, not just job satisfaction and pay, as was demonstrated by previous studies (Babcock and Laschever 2003; Clark 1997). That is, as a baseline, women in mixed-sex occupations will perceive relatively high levels of support. Unlike the job satisfaction and pay satisfaction research, this research has no measure of actual levels of workplace support. Such a measure could be used to determine whether women in mixed-sex occupations are satisfied with less because they have lower expectations or whether these women actually receive higher levels of workplace support than men receive. In addition, I do not consider the degree to which perceived workplace support might vary among mixed-sex occupations based on variations in the demographic makeup of mixed-sex occupations or based on the degree to which a mixed-sex occupation is stable or is moving toward masculinization or feminization (Gatta and Roos 2005). Future work should address these important issues.

This study may have broader social implications. First, a self-perpetuating process may be occurring, in that perceptions of low levels of workplace support likely cause some women to leave high-status, high-paying, male-dominated occupations—contributing further to occupational sex segregation at the national level (Jacobs 1989). Second, it appears that women experience negative consequences whether they are segregated into female-dominated occupations or they join male-dominated occupations. Working in a female-dominated occupation is related to lower pay and status, less control over working conditions, more difficult work, and negative health outcomes (Glass 1990; Reskin and Roos 1990). On the other hand, if women are in male-dominated occupations, and consequently experience low levels

of workplace support, this may also have negative repercussions. Low levels of workplace support make it difficult to do one's job well and can diminish enjoyment of the work itself (de Jonge et al. 2001). Low levels of perceived support are also associated with negative health outcomes and high levels of stress response (House 1981; House, Landis, and Umberson 1988; Johnson and Hall 1988). Taken together with previous work, this study provides evidence that these problems are likely widespread across many occupations in the United States.

NOTES

1. Mixed-sexed occupations vary on important characteristics including the demography of the workers and whether the jobs are masculinizing, feminizing, or stable (Gatta and Roos 2005). These differences may have an effect on differences in levels of perceived support for women and men.

2. Because the data are clustered on occupation, I considered the interclass correlation before deciding to use ordinary least squares regression. However, for all models including occupation as a random effect, the interclass correlation was zero. Thus, the results would be the same whether or not I controlled for occupation as a random effect. To utilize weights to make the National Survey of Midlife Development in the United States sample nationally representative, I choose to use ordinary least squares regression.

3. I estimated this model controlling for several other key variables: personal earnings income during the past year, age, and years of work experience, and I estimated the model using only respondents who had a valid value for all items on perceived workplace support index. In both cases the results remain statistically significant and in the predicted direction.

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