GENDER, RACE, AND THE SHADOW STRUCTURE
A Study of Informal Networks and Inequality in a Work Organization

GAIL M. McGUIRE
Indiana University at South Bend

In this article, I analyze survey data from more than 1,000 financial services employees to understand how gender inequality manifests itself in employees' informal networks. I found that even when Black and white women had jobs in which they controlled organizational resources and had ties to powerful employees, they received less work-related help from their network members than did white men. Drawing on status characteristics theory, I explain that network members were less likely to invest in women than in white men because of cultural beliefs that rank women below that of white men. While past research has documented how employers use gender to rank workers and distribute rewards unequally, my research indicates that workers use gender to categorize and rank their network members as well.

> Somewhere behind the formal organization chart at Indsco was another, shadow structure in which dramas of power were played out.
>
> —Kanter (1977, 164)

When I first read Rosabeth Moss Kanter's (1977) *Men and Women of the Corporation*, I was drawn to her description of the shadow structure in corporations, where employees built alliances, traded organizational resources, and managed their reputations. This informal side of organizational life is also the place, I argue, where unspoken rules of interaction make gender inequality possible and highly

---

AUTHOR'S NOTE: *I thank Michael Davern, Lowell Hargens, David Knoke, Betsy Lucal, Patricia Yancey Martin, Michael McCrary, Daniel Olson, Barbara Reskin, and four* Gender & Society *reviewers for their insights on this project. This research was supported by a fellowship from Indiana University and grants from The Ohio State University. An earlier version of this article was presented at the 2000 annual meetings of the American Sociological Association in Washington, D.C.* *All correspondence should be directed to Dr. Gail M. McGuire, Department of Sociology and Anthropology, Indiana University at South Bend, 1700 Mishawaka Avenue, South Bend, IN 46634-7111; e-mail: GMcGuire@iusb.edu.*

REPRINT REQUESTS: *Gail M. McGuire, Department of Sociology and Anthropology, Indiana University at South Bend, 1700 Mishawaka Avenue, South Bend, IN 46634-7111.*

GENDER & SOCIETY, Vol. 16 No. 3, June 2002 303-322

resistant to change. It is the goal of this article to understand how gender inequality is achieved in the shadows of formal organizational life.

Sociologists have begun to understand the shadow structure in work organizations by examining informal networks, or the web of relationships in which people exchange resources and services (Cook 1982; Scott 1991; Wellman 1983). Informal networks differ from formal networks in that their membership is voluntary and in that they help workers achieve work-related, personal, and social goals through unofficial channels (Ibarra 1993). Network scholars describe informal networks as social resources because they direct the flow of information and power in work organizations, in part by helping workers circumvent formal procedures (Campbell, Marsden, and Hurlbert 1986; Lin, Ensel, and Vaughn 1981). For instance, informal networks help workers to obtain jobs, to advance up the corporate ladder, to gain skills, and to acquire legitimacy (Bridges and Villemez 1986; Burt 1992; Campbell and Rosenfeld 1985; Grieco 1996; Podolny and Baron 1997).

The benefits of having informal networks are not the same for women and men workers, however (Aldrich 1989; Ibarra 1993; Smith-Lovin and McPherson 1993). Women are less likely than men to have high-status network members and to have diverse networks (Brass 1985; Campbell 1988; Ibarra 1992; McGuire 2000; Moore 1992; Scott 1996). Having a network composed of diverse and powerful members is critical for employees' acquisition of resources and power in work organizations (Brass 1985; Higginbotham and Weber 1999; Jackall 1988; Kanter 1977; Lin, Ensel, and Vaughn 1981). Women are also less likely than men to be central in work-based networks, which limits their access to network members' resources (Ibarra 1992).

While the studies reviewed above suggest that informal networks are gendered, several gaps in this research prevent an understanding of the causes of gender differences in informal networks. First, it is unclear how differences in men's and women's formal organizational positions versus informal discrimination by network members contribute to gender differences in informal networks. Much research indicates that structural differences between men and women explain gender differences in informal networks (Ibarra 1993; Kanter 1977; McGuire 2000; Moore 1992; Renzulli, Aldrich, and Moody 2000; South et al. 1982, 1987). These studies suggest that if men and women occupied the same jobs and organizational positions, their networks would be similar. Other researchers, in contrast, assert that women's networks are less resourceful than men's networks because network members use discriminatory criteria for establishing membership and distributing resources. Specifically, they claim that women obtain fewer network payoffs than men do for their organizational characteristics and are excluded from resourceful networks (Ibarra 1992; Miller, Lincoln, and Olson 1981; Ohlott, Ruderman, and McCauley 1994; Scott 1996). This research suggests that women's networks are less beneficial than men's networks even when women and men hold the same positions in work organizations.

A second limitation of the research on gender differences in work-related networks is that few studies have examined how gender and race operate in unison to affect workers' networks (but see Miller, Lincoln, and Olson 1981). This gap conceals how the experiences of white women and women of color may differ in the workplace and reinforces the erroneous conclusion that gender and race inequality are mutually exclusive systems.

My research addresses these gaps by examining gender differences in the amount of work-related help that employees receive from their intraorganizational network members. Drawing on structural and social psychological perspectives, I explain why women tend to receive less work-related help than men do from their network members. While workers obtain a range of benefits from their informal ties (e.g., social support, emotional support, guidance on role expectations), I focus on job and career-related help. A majority of employees' job training and career development come from informal instruction, making instrumental help from network members critical for workers' advancement and success (Grieco 1996; U.S. Bureau of Labor Statistics 1996). A separate paper will examine gender differences in the socioemotional help that workers receive from their network members.

This study furthers our understanding of the connections between gender, informal networks, and inequality in a number of ways. Because I collected data on the personal, job, and network characteristics of men and women workers, my study disentangles the effects of workers' gender from their structural positions on their informal networks. This type of analysis is necessary to distinguish the formal, structural barriers that women face in the workplace from the informal, interactional ones they experience. I also compare the networks of white women, Black women, white men, and Black men, which most studies have been unable to do because of insufficient data on African Americans. This race-gender analysis is important for understanding how women's experience of gender varies in the workplace as well as the interconnectedness of gender and race inequality in work organizations (Schwalbe et al. 2000).

THEORETICAL PERSPECTIVES ON GENDER, INEQUALITY, AND NETWORKS

Network Theory

The main perspective that scholars have used to explain network differences is network theory, a hybrid of structural and social exchange theories. According to this theory, workers' structural location affects their attractiveness as network members, their power over network members, their access to network members, and their time to interact with others, all of which should affect the amount of help they receive from their network members (Campbell, Marsden, and Hurlbert 1986; Feld 1981; Ibarra, 1993; Marsden 1990; Wellman and Wortley 1990). For instance,

the structure of most corporations limits contact between low-status and high-status employees (Kanter 1977; McGuire 2000; Pierce 1995). Consequently, occupying a position with high organizational rank should increase an employee's access to corporate resources via her or his structural availability to powerful employees. Holding high-ranking positions also provides employees with credibility and status, which enhances their influence over network members, helping them to get what they want (Kanter 1977). Workers' structural location also affects others' desire to help them by influencing workers' ability to reciprocate. Workers who have limited resources with which to trade are likely to be seen by others as undesirable network members (Blau 1964; Cook 1982).[1]

The composition of employees' networks should also determine the amount of informal help they receive. For instance, high-status employees have greater access to, and control over, corporate resources than do low-status employees (Lin and Dumin 1986). Consequently, high-status network members can facilitate employees' mobility, advocate for employees in controversial situations, and help employees bypass the corporate hierarchy (Brass 1985; DeGraaf and Flap 1988; Lin, Ensel, and Vaughn 1981). The composition of strong versus weak ties in a network may also influence the amount of work-related help employees receive. Strong ties are characterized by high intimacy and frequent contact, while weak ties are characterized by low intimacy and infrequent contact (Granovetter 1973). Research highlights the exchange of novel information by weak ties and the exchange of detailed information by strong ties (Granovetter 1973; Uzzi 1997). Strong ties are also highly motivated to help each other, particularly in uncertain or stressful situations, because of their intimacy and trust (Aldrich, Elam, and Reese 1997; Granovetter 1995; Krackhardt 1992; Uzzi 1997).

Network theory suggests that the effect of employees' gender on the amount of help they receive from their network members is indirect through structural factors, including employees' job characteristics and the composition of employees' networks. In other words, women receive fewer instrumental benefits than men do from their informal networks because of the positions they occupy, not simply because of their gender, according to this theory. For instance, the gender segregation of occupations, jobs, and voluntary organizations encourages workers to interact primarily with members of their own gender (Bielby and Baron 1986; King 1992; McPherson and Smith-Lovin 1986; Popielarz 1999). As a result, workers' networks tend to be segregated by gender (Brass 1985; Ibarra 1992; Leicht and Marx 1997; McGuire 2000; Scott 1996). Because women tend to occupy positions with lower organizational rank and authority than men, their network members tend to have less status and power than men's network members (Aldrich 1989; Ibarra 1993; McGuire and Reskin 1993). Consequently, women should receive fewer instrumental benefits than men do from their network members (McGuire 1999).[2]

Hypothesis 1: Structural (i.e., job and network) differences between women and men will explain any gender differences in instrumental help from network members.

Status Characteristics Theory

Status characteristics theory suggests that network members take each other's gender into account regardless of their structural positions. One of the ways that workers make sense of each other is by categorizing each other according to their gender (Reskin 2000; Ridgeway 1997). These categorizations are based on polarized, stereotypical notions about men and women that draw boundaries, and define relations, between women and men (Tilly 1998). According to status characteristics theory, workers also evaluate each other based on the resources their gender is assumed to have—the more resources a group is assumed to possess, the more competent its members are assumed to be (Ridgeway 1991, 1997; Thye 2000). Because women tend to hold positions with lower rank and less control over resources than men do, workers assume that women are less competent than men (Martin 1985; Ridgeway 1997; Ridgeway et al. 1998). Scholars refer to these generalizations about group members' worth as status value beliefs.

Status characteristics theory suggests two ways in which gender could affect how much instrumental help workers receive from their network members. First, gender could have a direct effect on network help, meaning that women could receive less help from their network members than men do even when they occupy equivalent organizational positions. In other words, network members may give men more resources than they give women simply because they are men. Second, employees' gender may interact with structural opportunities. While all workers may benefit from occupying strategic organizational positions, men may receive higher network payoffs from such structural opportunities than women do.

Hypothesis 2: Women will obtain less instrumental help from their informal network members than men will, net of their structural (i.e., job and network) opportunities.

Hypothesis 3: Women will receive fewer network payoffs, in the form of instrumental help from network members, than men will for their structural (i.e., job and network) opportunities.

In addition to the hypotheses suggested by network theory and status characteristics theory, I examine whether white and Black women receive different amounts of instrumental help from their network members. Neither network theory nor status characteristics theory offers predictions regarding the interaction between gender and race. While research suggests that white and Black women differ with regard to the formal rewards they receive at work, little research has compared how they fare in obtaining informal work rewards.

DATA AND METHOD

This study is based on survey data from workers employed by a large financial services corporation, which I refer to as U.S. Finance, a pseudonym. When I

collected the data, U.S. Finance employed more than 20,000 individuals, had annual revenues of more than $30 billion, and ranked in the top ten among those companies that provided similar services (Hillstrom and Ruby 1994). Among the approximately 6,000 employees at the home office, 59 percent were women and 15 percent were people of color (48 percent were white women, 37 percent were white men, 11 percent were women of color, and 4 percent were men of color). Professionals, clericals, managers, and technicians were overrepresented, while service workers, craft workers, salespeople, operatives, and laborers were underrepresented at U.S. Finance.[3]

My relationship with U.S. Finance began in the mid-1990s, when I interviewed several of its employees for a qualitative study on mentoring in the workplace (McGuire 1994). One of my interviewees, a manager in human resources, suggested that I apply for a research position in his department. I subsequently worked for U.S. Finance as a research consultant for a year and a half. I conducted several qualitative studies on mentoring and networks during my employment at the company, which I draw on in this article to illustrate my quantitative findings.

To obtain data on employees' informal networks, I mailed surveys to a stratified random sample of 1,756 full-time employees at U.S. Finance's home office. I excluded contract workers, part-time employees, independent sales agents, and subsidiary employees from the sample. I oversampled people of color so that I could conduct statistical analyses using employees' race (for additional details, see McGuire 2000). My final response rate was 65 percent, or 1,150 respondents. Thirty-one percent of the final sample were white women, 30 percent were white men, 26 percent were women of color, and 13 percent were men of color. More generally, 57 percent of the sample were women, and 39 percent were people of color.[4]

To capture workers' informal networks, I asked respondents to think of employees at U.S. Finance who had made an effort to give them job, career, or personal help. I encouraged respondents to think of people with whom they worked, with whom they did not work, with whom they interacted frequently, and with whom they interacted occasionally so that workers would include close and distant network members. I asked about help received "since the beginning of the year," or within the past nine months, to minimize respondent recall bias. I also limited the number of network members to eight to minimize the difficulty of the survey.

This technique did not capture an employee's entire informal network. It excluded network members outside of the company and those from whom employees infrequently received help. As a result, I may have underestimated the amount of help that workers received from their informal networks. For the purposes of my research, this is not a problem if men and women had the same likelihood of having ties outside of the company and having network members with whom they infrequently interacted. The survey did have a question that asked respondents whether they had someone outside of the company who had taken a special interest in their career and taken them under their wing. There were no significant differences between men and women on this item.

Measurement of Help from Network Members

Building on the work of Brass (1985), Burt (1992), and Ibarra (1992) and my research at U.S. Finance, I created an index of network help composed of six indicators: help with a work-related problem, help in getting around bureaucratic hurdles, help in meeting employees in other areas of the company, help in meeting high-level employees (i.e., managers and officers), help in getting a new position or promotion, and help in getting one's work recognized. Respondents replied either "yes," the network member provided this help (coded 1) or "no," the network member did not provide this help (coded 0). I then summed respondents' scores on these six indicators. The alpha coefficient for this index is .80. The range, mean, and standard deviation of this index and the other measures are presented in Table 1.

While this index does not allow me to analyze gender differences in the types of network help received, examining generic processes prior to specific ones is a common approach because it allows one to obtain a picture of the whole before disentangling its parts. This index also does not tap into the effectiveness of the help received. An employee may have received advice on a work-related problem from a network member, but the advice may have been useless or harmful. Employees who consistently gave bad advice probably would not have been listed as network members by the respondents, however. Nevertheless, network members who are not particularly helpful are probably underrepresented in this study. In fact, only 2 percent of respondents reported that none of their network members gave them instrumental help.

Measurement of Hypothesized Causal Factors

Employees' gender and race. I created dummy variables for being a white woman, Black woman, and Black man. The comparison group is white men. There are 234 Black women, 104 Black men, 354 white women, and 332 white men in the sample, for a total of 1,024 respondents. This sample is smaller than my original one because I excluded Asians, Latinos, and other people of color. I dropped these groups from this analysis because Blacks are the largest minority group at U.S. Finance and previous analyses indicated that Asians' and Latinos' networks resembled those of whites (McGuire 2000).

Structural opportunities. The first set of structural opportunities relates to an individual's job characteristics. I measured employees' control over resources with four variables: ability to make purchases more than $10,000, ability to provide input into decisions that affect company services or products, ability to make final decisions that affect company services or products, and access to confidential information. Respondents indicated whether they could engage in these activities by responding "yes," coded 1, or "no," coded 0. To measure employees' organizational rank, I asked respondents to place themselves into one of five categories (coded 1 to

TABLE 1: Analysis of Variance Results, by Employees' Gender and Race

Variable Type	*Variable*	*Range*	*Standard Deviation*	*Mean*					*Gender Significant*	*Race Significant*	*Interaction Significant*
				Sample	*White Men*	*White Women*	*Black Women*	*Black Men*			
Help from network members	Amount of help from network members	0 to 43	6.98	13.34	14.31	13.05	10.93	12.13	*	*	
Network characteristics	Network members' positional resources	0 to 64	9.43	15.20	17.45	14.15	11.93	12.93	*	*	
	Average closeness	0 to 5	0.65	3.58	3.49	3.69	3.39	3.37	*	*	
	Average frequency of socializing	0 to 5	0.94	2.04	2.00	2.10	1.84	2.05		**	
	Average frequency of talking	0 to 4	0.60	3.42	3.35	3.49	3.29	3.38	*	*	**
	Average years known	0 to 4	0.79	2.68	2.69	2.71	2.50	2.39		*	
	Number of women in network	0 to 8	1.89	2.72	1.87	3.28	3.31	2.26	*	*	
	Number of Blacks in network	0 to 8	0.77	0.44	0.27	0.38	1.41	1.09	*	*	
	Network size	0 to 8	1.93	5.29	5.40	5.31	4.78	4.98		*	
Employees' job characteristics	Intergroup communication (0 = not important)	0 to 4	1.17	2.99	3.13	2.97	2.52	2.73	*	*	
	Organizational rank (1 = nonsupervisor)	1 to 5	0.97	1.47	1.87	1.23	1.17	1.34	*	*	*
	Access to confidential information	0 to 1	0.49	0.59	0.65	0.58	0.43	0.40		*	

	Provide input into decisions	0 to 1	0.49	0.62	0.71	0.57	0.51	0.53		*	
	Make final decisions	0 to 1	0.38	0.18	0.27	0.11	0.15	0.16	*		**
	Make major purchases	0 to 1	0.25	0.06	0.11	0.04	0.02	0.04			
Family characteristics	Currently married (1 = yes)	0 to 1	0.47	0.66	0.74	0.64	0.42	0.61	*	*	
	Number of children under 18	0 to 3	0.98	0.77	0.89	0.69	0.73	0.84	*		
Credentials	Years of education	12.00 to 21.00	1.96	14.75	15.54	14.24	14.28	14.68	*	*	*
	Financial designations (1 = yes)	0 to 1	0.42	0.23	0.32	0.18	0.12	0.15	*	*	
	Company tenure (1 = less than one year)	1 to 5	1.22	3.98	3.87	4.09	3.89	3.47	*		

*Significant at the .05 level. **Significant at the .10 level.

5, respectively): nonsupervisor, supervisor, manager, director, or officer and above. I asked respondents how important it was for them to communicate regularly with employees outside of their work group to perform their current job, with responses ranging from 0 = *not at all important* to 4 = *essential*.

A second set of structural opportunities is characteristics of networks. My measure of the positional resources of network members is composed of four indicators: organizational rank, ability to make major purchases, access to confidential information, and ability to make final decisions. The item for network members' organizational rank has five response categories: nonsupervisor, supervisor, manager, director, or officer. The survey questions for the other three indicators were, "Does this person make major purchases ($10,000 or more) without getting permission from higher up?" "Does this person have access to sensitive or confidential company information?" and "Can this person make final decisions that significantly change [U.S. Finance] products, programs, or services?" Respondents indicated "yes," "no," or "don't know" for each network member. I summed the four indicators to create an index, which has an alpha of .63.

In their review of tie-strength measures, Marsden and Campbell (1984) identified two components of tie strength—depth of the relationship and time spent in the relationship. To tap into the depth of employees' network relationships, I asked respondents how close they felt to each of their network members. Responses ranged from "very distant" to "very close." I obtained an average closeness measure by summing the scores across respondents' network members and dividing by network size. Average amount of socializing also taps into the depth of employees' network relationships. Employees indicated whether they socialized (e.g., went out for drinks, ate lunch, played golf) with each of their network members "seldom to never," "several times a year," "about once a month," "several times a month," or "about once a week."

I used two measures for the average time spent in network relationships. Respondents indicated the frequency with which they spoke to their network members (in person, by phone, by e-mail) by choosing one of the following responses: "less than once a month," "at least once a month," "at least once a week," or "about every day." The survey also asked respondents how long they had known each of their network members, with responses including "less than 1 year," "1-3 years," "4-6 years," and "more than 6 years."

Other measures: Interactions with gender. To examine the effects of social similarity, I computed interactions between the dummy variables for employees' gender and race and the variables for the gender and race composition of employees' networks.

I tested interactions between employees' marital status and their gender as well as between employees' number of young children and their gender because I expected that women's familial obligations would decrease the amount of time they had to invest in their network relationships and affect others' perceptions of their commitment (Acker 1990; Campbell 1988; Hochschild 1997; Kunda 1992;

Wellman 1985). Respondents "presently married" are coded as 1, and respondents "not presently married" are coded as 0. The number of children younger than 18 living at home has a range from 0 = *no children* to 3 = *three or more children*.

Control Variables

I controlled for another category of variables, credentials, because of their role in helping employees to gain organizational resources and high-status positions (McGuire 2000). The measures I used were years of education completed, completion of a financial designation, and level of company tenure. Financial designations are technical certifications in financial services, which are unofficial requirements for advancement. I coded respondents who had at least one designation as 1 and respondents who had no designations as 0. The five categories for company tenure were "less than 1 year," "1 to 3 years," "4 to 6 years," "7 to 9 years," and "10 or more years."

Because my dependent variable sums the amount of help received by network members, an increase in network size would tend to increase the amount of help employees received, so I controlled for the size of employees' networks (the number of network members).

Method of Analysis

I conducted an analysis of variance (ANOVA) to determine whether white women, white men, Black women, and Black men received different amounts of work-related help from their network members and if there were gender and race differences in structural opportunities. Table 1 presents the ANOVA results, which include weighted means for the whole sample, white men, white women, Black men, and Black women.

I conducted an ordinary least squares (OLS) regression to identify the determinants of the amount of help from network members.[5] Table 2 presents the unstandardized and standardized OLS regression coefficients for amount of work help provided by network members.[6] I used one-tailed tests of significance for all hypotheses, except for the composition of strong ties because these measures could have either positively or negatively affected informal network help. Model 1 contains the variables for employees' gender and race, model 2 adds the controls for credentials, model 3 adds job characteristics, and model 4 adds network characteristics. I organized the models in this way to determine if gender differences in network help were explained by job or network-related structural factors, as suggested by network theory. To analyze the arguments of status characteristics theory, I examined whether women received less help than men did from their network members after structural differences were taken into account (models 3 and 4). I also tested the interactions of gender and race with structural factors (organizational rank, control over resources, job communication, gender and race composition of networks, positional resources of network members, and the composition of

TABLE 2: Ordinary Least Squares Regressions Predicting Amount of Work-Related Help from Network Members

Variable Type	*Variable*	*Model 1*	*Model 2*	*Model 3*	*Model 4*
Gender and race	Black woman	–3.02* (–.18)	–2.07* (–.12)	–.96* (–.06)	–.72* (–.04)
	White woman	–.42 (–.03)	.28 (.02)	.24 (.02)	–.64* (–.04)
	Black man	–1.85* (–.08)	–1.32* (–.06)	–.33 (–.01)	–.17 (–.01)
Credentials	Years of education		.65* (.18)	.19** (.05)	–.07 (–.02)
	Financial designations		.86** (.05)	–.45 (–.03)	–.45 (–.03)
	Company tenure		–.25 (–.04)	–.81 (–.14)	–.31 (–.06)
Job characteristics	Intergroup communication			.58* (.10)	.15 (.03)
	Organizational rank			.98* (.14)	–.19 (–.03)
	Confidential information			2.50* (.18)	.65* (.04)
	Provides input into decisions			1.85* (.13)	.78* (.05)
	Makes final decisions			.19 (.01)	.09 (.01)
	Makes major purchases			.20 (.01)	–.47 (–.02)
Network characteristics	Members' positional resources				.26* (.36)
	Average closeness				1.49* (.15)
	Average frequency of socializing				.77* (.10)
	Average frequency of talking				–.34 (–.03)
	Average years known				–.33 (–.04)
	Number of members				1.60* (.44)
	Constant	14.09	4.71	7.84	–2.24
	Adjusted R^2	.03	.06	.16	.61

NOTE: Standardized coefficients are in parentheses.
*Significant at the .05 level. **Significant at the .10 level.

strong ties in their networks) to determine if white women, Black women, and Black men received less help than white men did even when they had the same job and network characteristics.

BIVARIATE RESULTS

The ANOVA results in Table 1 show that men received more instrumental help from their network members than women did. They also indicate that women tended to occupy jobs that limited their ability to form resourceful networks. For instance, women, particularly Black women, tended to hold positions with lower organizational rank than men's positions. Women were also less likely than men to have jobs in which they made final decisions and interacted with employees outside of their work groups. Consequently, men's network members were more likely than women's to control corporate resources.

The bivariate findings also indicate that Blacks received less instrumental aid from their network members than whites did. The structural opportunities available to Black versus white employees at U.S. Finance could account for this difference. For instance, Black employees were less likely than white employees to have access to confidential information, to provide input into corporate decisions, to hold high-ranking positions, and to have jobs that required them to interact with employees outside of their work groups. As a result, Blacks had fewer network members than whites did, and their network members were less likely than whites' to control corporate resources.[7]

MULTIVARIATE RESULTS

While network theory suggests that structural differences between women and men explain gender differences in instrumental help from network members (hypothesis 1), status characteristics theory suggests that women obtain less instrumental help from their informal network members than men do even when they have the same structural characteristics (hypothesis 2) or that women receive fewer network payoffs than men do for their structural opportunities (hypothesis 3). Model 4 shows that white and Black women received less help from their network members than white men did, net of their structural characteristics, contrary to hypothesis 1.[8] The standardized coefficients for white and Black women in model 4 indicate that Black women and white women were similarly disadvantaged with regard to obtaining informal help at work. Contrary to hypothesis 3, none of the interactions between employees' gender, race, and structural characteristics were statistically significant.[9] In sum, these results support hypothesis 2—women, regardless of their race, received less instrumental help from their network members than men did simply because of their gender.

DISCUSSION

The results for Black and white women support status characteristics theory's prediction that network members take each other's gender into account when divvying up resources. Even when Black and white women had jobs in which they controlled resources and had network members who controlled resources, they received less informal help than white men did. Women were not completely excluded from informal networks, however. In fact, women had approximately the same number of network members as men. Thus, the informal discrimination that women experienced was in being treated differently than white men by their network members. Women may have been perceived by network members as poor or risky investments because of cultural beliefs that ranked them below that of white men, according to status characteristics theory. As a result, network members may have believed that their helpful efforts should be directed at white men, whom they perceived as having the potential to be successful. These results suggest that just as "employers can never interview or read the resume of a sex-neutral worker," workers categorize and rank their network members with their gender in mind (Ridgeway 1997, 225).

While network theory's prediction did not hold true for Black and white women, this is not to say that the characteristics of women's jobs and networks were insignificant for the amount of instrumental help they received. For instance, the regression coefficient for Black women diminished from model 1 to model 4 (after the structural variables were added), indicating that Black women's lack of structural opportunities provides a partial explanation for why they received less informal help than white men did.

Network theory did explain why Black men received less work-related help from their network members than white men did, however. After I added the job characteristics to model 3 in Table 2, for instance, the coefficient for being a Black man became nonsignificant. This means that when Black men obtained positions with high intergroup communication, rank, and control over resources, they received the same amount of help from their network members as white men did. Correlation analyses (not shown) indicate that Black men were significantly less likely than white men to have jobs in which they controlled organizational resources, with high organizational rank, and requiring interdepartmental communication. Thus, while Black men received the same amount of informal help as white men when they had the same job characteristics as white men, such job parity between Black and white men was rare.

CONCLUSION

Interest in informal networks has grown with the realization that networks can reveal the informal, interactional processes through which gender becomes embed-

ded in work organizations (Acker 1990; Britton 2000; Martin 1997; Schwalbe et al. 2000; Smith-Lovin and McPherson 1993; Tilly 1998). Drawing on network theory and status characteristics theory, my study suggests how structural and social psychological processes contribute to the gendering of informal networks at work. It also offers insights on how to diminish informal inequities between women and men workers.

Contrary to the expectation of network theory, I found that structural differences between men and women did not explain why women received less instrumental help from their network members than men did. I suspect that network theory's inability to explain gender differences in help from network members is due to two of its assumptions. The first assumption is that organizations are gender neutral. Network theorists certainly recognize the importance of gender in organizational life, but like so many sociologists, they tend to view gender as a characteristic of individuals rather than as an integral part of organizational structure (Acker 1990; Britton 2000; Martin 1997). As a result, they tend to overlook the ways in which organizational norms, values, and positions have been constructed to privilege men and disadvantage women. A second assumption underlying network theory is that workers seek to obtain as many resources, with as little risk to themselves, as possible. This assumption fails to recognize how workers' gender affects those assessments of risks and benefits. My results suggest that even when women had much to offer, their network members invested less in them than in their male counterparts.

While structural factors did not completely account for why Black and white women received less network help than white men, these factors did explain why Black men received less help than white men. One possible explanation for these disparate findings is that status value beliefs operate in different ways for white women, Black women, and Black men. Perhaps status value beliefs affect Black men in the early stages of their careers, when they are attempting to acquire human capital and obtain prestigious assignments. For Black and white women, however, there appears to be a level of acceptance that they cannot achieve even when they hold the necessary credentials and occupy powerful positions. Because our understanding of status value beliefs comes mainly from the study of formal task groups, this explanation remains speculative, however. By examining the conditions under which status value beliefs are imported into informal exchanges, future research could better explain the irrational, discriminatory behavior of network members.

Explaining these findings also requires additional research on the content of status value beliefs. Status characteristics theory suggests that status values beliefs signal a worker's competence. Research on networks, however, suggests another aspect of status value beliefs—trustworthiness (Krackhardt 1992). After all, a competent network member is of little value if she or he cannot be trusted. Trust is important in network relationships because it enables members to take risks, to get honest feedback, to ask sensitive questions, and to achieve some predictability (Jackall 1988; Kunda 1992). A manager at U.S. Finance explained that when people rose to positions of power,

> they seem to be appointing their friends or people that have worked for them before, to other higher positions. And it looks, um, parochial, it looks closed. [But] after having observed that for a long time, I don't think there's anything really sinister about it. . . . You know the safest thing to do is to take people whose work I know . . . and who I know I can count on and who won't let me down. . . . It's safer to do that than to try somebody new.

I suspect that white and Black women received less instrumental aid from their network members than white men did not only because of their presumed incompetence but also because of their presumed untrustworthiness.

While this study contributes to our understanding of the informal mechanisms through which work organizations are gendered, any research that relies on data from a single organization is limited in its generalizability. U.S. Finance is a large, successful corporation in the financial services industry with a reputation for being conservative and slow to change. It may be that structural differences between men and women play a more important role in determining network help in less competitive or conservative organizations. Another limitation of this study is that it does not meet the scope conditions of status characteristics theory—I did not observe workers engaged in a joint, formal task for which there was a shared goal (Ridgeway 1991). I also did not directly measure status value beliefs but instead inferred their existence from my finding that men received more informal help than women did, even when they were structurally equivalent.

In conclusion, sociological research warns us that the use of informal procedures to hire, to evaluate, and to reward workers tends to advantage workers already in privileged positions (Braddock and McPartland 1987; Reskin and McBrier 2000). Formal work procedures that are consistently enforced, and for which managers are accountable, in contrast, could help to distribute organizational resources more equally (Bielby 2000; Heilman 1995; Reskin 2000). My results suggest that this strategy would be of particular help to Black men, whose informal disadvantages are rooted in their unequal access to formal positions.

Formalizing work procedures would not be sufficient to alter the instrumental help that Black and white women receive from their informal networks, however. According to Ridgeway (1997), the process of gender categorization sustains status value beliefs even when the structural conditions that bolster such beliefs change. Privileged group members are unlikely to attend to information that challenges their assumed superiority and instead attribute oppressed group members' success to luck or an unfair advantage (Hochschild 1997; Reskin 2000; Ridgeway 1997). A woman's reliance on formal work procedures could, in fact, damage her reputation by marking her as an outsider. For instance, a U.S. Finance vice president whom I interviewed for an in-house study said that he obtained promotions for his friends by asking other vice presidents to put his friends on their candidate lists for jobs. He said that vice presidents routinely exchanged such favors and that only "losers" went to human resources (i.e., used a formal procedure) to try to obtain promotions. Women, in effect, face a double-edged sword; they obtain less instrumental help than men do from their informal network members, but if they turn to formal outlets

to meet their instrumental needs, they risk being further marginalized. In sum, organizations' success in altering how social resources are distributed depends on their efforts to change their structural arrangements as well as the gendered beliefs underlying them.

NOTES

1. This perspective assumes that workers form informal networks primarily for the instrumental benefits they expect to receive from their network members and tends to ignore the emotional and social benefits that workers receive from their informal network members (Lawler and Thye 1999).

2. Mutual interests and affinity between socially similar network members could also lead workers to provide more help to socially similar than to socially dissimilar network members (Baron and Pfeffer 1994; Ibarra 1992; South et al. 1987; Thomas 1990; Tsui and O'Reilly 1989).

3. Among employees at the home office, 32 percent were professionals, 29 percent were clericals, 17 percent were managers, 16 percent were technicians, 3 percent were service workers, 1 percent worked in crafts, and less than 1 percent were in sales or operatives. Among employees in private industry in the United States in 1993, 11 percent were managers, 14.5 percent were professionals, 6 percent were technicians, 11 percent were sales workers, 15 percent were clericals, 9 percent were craft workers, 15 percent were operatives, 7 percent were laborers, and 11 percent were service workers (U.S. Equal Employment Opportunity Commission 1994, 1).

4. The response rate varied by respondents' race/ethnicity and gender—71 percent of white women, 67 percent of white men, 60 percent of men of color, and 58 percent of women of color returned the survey. I received a handful of phone calls from employees who were concerned that African Americans were being singled out for study, which may explain why the response rate for whites was higher than that for people of color. Because I am unable to compare nonrespondents to respondents on the determinants of network help, my results should be interpreted with caution.

5. Using linear regression models, such as ordinary least squares (OLS) regression, for dependent variables with limited count outcomes can produce inefficient, inconsistent, and biased estimates (Long 1997). Because my dependent variable has a large number of possible values (0 to 48), however, the OLS estimates would be virtually the same as those from a nonlinear model, such as poisson regression or negative binomial regression.

6. I tested for multicollinearity using the variance inflation factor, condition numbers, and variance-decomposition proportions. I did not conduct a weighted regression because employees' race is a determinant in the multivariate analysis.

7. I refer to women, men, Blacks, and whites (instead of specific race-gender groups) because there were very few significant race and gender interactions in the ANOVA results.

8. The coefficient for being a white woman did not become significant until model 4 because white women had higher scores than those of white men on average closeness to network members.

9. I do not present the nonsignificant interaction coefficients because there are 38 of them.

REFERENCES

Acker, J. 1990. Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society* 4:139-58.

Aldrich, H. E. 1989. Networking among women entrepreneurs. In *Women owned businesses*, edited by O. Hagan, C. Rivchun, and D. Sexton. New York: Praeger.

Aldrich, H. E., A. B. Elam, and P. R. Reese. 1997. Strong ties, weak ties, and strangers: Do women business owners differ from men in their use of networking to obtain assistance? In *Entrepreneurship in a global context*, edited by S. Birley and I. C. MacMillan. London: Routledge.

Baron, J. N., and J. Pfeffer. 1994. The social psychology of organizations and inequality. *Social Psychology Quarterly* 57:190-209.

Bielby, W. T. 2000. How to minimize workplace gender and racial bias. *Contemporary Sociology* 29:120-29.

Bielby, W. T., and J. Baron. 1986. Men and women at work: Sex segregation and statistical discrimination. *American Journal of Sociology* 91:759-99.

Blau, P. 1964. *Exchange and power in social life*. New York: John Wiley.

Braddock, J., and J. McPartland. 1987. How minorities continue to be excluded from equal employment opportunities: Research on labor market and institutional barriers. *Journal of Social Issues* 43:5-39.

Brass, D. 1985. Men's and women's networks: A study of interaction patterns and influence in an organization. *Academy of Management Journal* 28:327-43.

Bridges, W. P., and W. J. Villemez. 1986. Informal hiring and income in the labor market. *American Sociological Review* 51:574-82.

Britton, D. M. 2000. The epistemology of the gendered organization. *Gender & Society* 14:418-34.

Burt, R. S. 1992. *Structural holes*. Cambridge, MA: Harvard University Press.

Campbell, K. E. 1988. Gender differences in job-related networks. *Work and Occupations* 15:179-200.

Campbell, K. E., P. Marsden, and J. Hurlbert. 1986. Social resources and socioeconomic status. *Social Networks* 8:97-117.

Campbell, K. E., and R. A. Rosenfeld. 1985. Job search and job mobility: Sex and race differences. *Research in the Sociology of Work* 3:147-74.

Cook, K. S. 1982. Network structures from an exchange perspective. In *Social structure and network analysis*, edited by P. Marsden and N. Lin. Beverly Hills, CA: Sage.

DeGraaf, N. D., and H. D. Flap. 1988. "With a little help from my friends": Social resources as an explanation of occupational status and income in West Germany, the Netherlands, and the United States. *Social Forces* 67:452-71.

Feld, S. 1981. The focused organization of social ties. *American Journal of Sociology* 86:1015-35.

Granovetter, M. 1973. The strength of weak ties. *American Journal of Sociology* 78:1360-80.

———. 1995. *Getting a job: A study of contacts and careers*. 2d ed. Chicago: University of Chicago Press.

Grieco, M. 1996. *Workers' dilemmas: Recruitment, reliability, and repeated exchanges: An analysis of urban social networks and labour circulation*. London: Routledge.

Heilman, M. 1995. Sex stereotypes and their effects in the workplace: What we know and what we don't know. *Journal of Social Issues* 10:3-26.

Higginbotham, E., and L. Weber. 1999. Perceptions of workplace discrimination among Black and white professional-managerial women. In *Latinas and African American women at work: Race, gender, and economic inequality*, edited by I. Brown. New York: Russell Sage.

Hillstrom, K., and M. Ruby. 1994. *Encyclopedia of American industries*. Vol. 2, *Service and nonmanufacturing industries*. New York: Gale Research.

Hochschild, A. R. 1997. *The time bind: When work becomes home and home becomes work*. New York: Metropolitan Books.

Ibarra, H. 1992. Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Administrative Science Quarterly* 37:422-47.

———. 1993. Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review* 18 (January): 56-87.

Jackall, R. 1988. *Moral mazes: The world of corporate managers*. New York: Oxford University Press.

Kanter, R. M. 1977. *Men and women of the corporation*. New York: Basic Books.

King, M. C. 1992. Occupational segregation by race and gender, 1940-1980. *Monthly Labor Review* 115:30-37.

Krackhardt, D. 1992. The strength of strong ties: The importance of philos in organizations. In *Networks and organizations: Structure, form, and action*, edited by N. Nohria and R. G. Eccles. Boston: Harvard Business School Press.

Kunda, G. 1992. *Engineering culture: Control and commitment in a high-tech corporation*. Philadelphia: Temple University Press.

Lawler, E. J., and S. R. Thye. 1999. Bringing emotions into social exchange theory. *Annual Review of Sociology* 25:217-44.

Leicht, K. T., and J. Marx. 1997. The consequences of informal job finding for men and women. *Academy of Management Journal* 40:967-87.

Lin, N., and M. Dumin. 1986. Access to occupations through social ties. *Social Networks* 8:365-85.

Lin, N., W. Ensel, and J. Vaughn. 1981. Social resources and strength of ties: Structural factors in occupational status attainment. *American Sociological Review* 46:393-405.

Long, J. S. 1997. *Regression models for categorical and limited dependent variables*. Thousand Oaks, CA: Sage.

Marsden, P. 1990. Network data and measurement. *American Review of Sociology* 16:435-63.

Marsden, P., and K. E. Campbell. 1984. Measuring tie strength. *Social Forces* 63:482-501.

Martin, P. Y. 1985. Group sex composition in work organizations: A structural-normative model. In *Research in the sociology of organizations*, edited by S. B. Bacharach and S. M. Mitchell. Greenwich, CT: JAI.

———. 1997. Gender, accounts, and rape processing work. *Social Problems* 44:464-82.

McGuire, G. M. 1994. The role of mentoring in the allocation of work rewards: Implications for sex inequality. Paper presented at the annual meetings of the American Sociological Association, Los Angeles, California, August.

———. 1999. Do race and sex affect employees' access to and help from mentors? Insights from the study of a large corporation. In *Mentoring dilemmas: Developmental relationships within multicultural organizations*, edited by F. Crosby, R. Ely, and A. Murrell. Mahwah, NJ: Lawrence Erlbaum.

———. 2000. Gender, race, ethnicity, and networks: The factors affecting the status of employees' network members. *Work and Occupations* 27:500-23.

McGuire, G. M., and B. F. Reskin. 1993. Authority hierarchies at work: The impacts of race and sex. *Gender & Society* 7:487-506.

McPherson, J. M., and L. Smith-Lovin. 1986. Sex segregation in voluntary associations. *American Sociological Review* 51:61-80.

Miller, J., J. R. Lincoln, and J. Olson. 1981. Rationality and equity in professional networks: Gender and race as factors in the stratification of interorganizational systems. *American Journal of Sociology* 87:308-35.

Moore, G. 1992. Gender and informal networks in state government. *Social Science Quarterly* 73:46-61.

Ohlott, P., M. Ruderman, and C. McCauley. 1994. Gender differences in managers' developmental job experiences. *Academy of Management Journal* 37:46-67.

Pierce, J. L. 1995. *Gender trials: Emotional lives in contemporary law firms*. Berkeley: University of California Press.

Podolny, J. M., and J. N. Baron. 1997. Resources and relationships: Social networks and mobility in the workplace. *American Sociological Review* 62:673-93.

Popielarz, P. A. 1999. (In)voluntary association: A multilevel analysis of gender segregation in voluntary organizations. *Gender & Society* 13:234-50.

Renzulli, L. A., H. Aldrich, and J. Moody. 2000. Family matters: Gender, networks, and entrepreneurial outcomes. *Social Forces* 79:523-46.

Reskin, B. F. 2000. The proximate causes of employment discrimination. *Contemporary Sociology* 29:319-29.

Reskin, B. F., and D. B. McBrier. 2000. Why not ascription? Organizations' employment of male and female managers. *American Sociological Review* 65:1-24.

Ridgeway, C. 1991. The social construction of status value: Gender and other nominal characteristics. *Social Forces* 70:367-86.

———. 1997. Interaction and the conservation of gender inequality: Considering employment. *American Sociological Review* 62:218-35.

Ridgeway, C., E. H. Boyle, K. J. Kuipers, and D. T. Robinson. 1998. How do status beliefs develop? The role of resources and interactional experience. *American Sociological Review* 63:331-50.

Schwalbe, M., S. Godwin, D. Holden, D. Schrock, S. Thompson, and M. Wolkomir. 2000. Generic processes in the reproduction of inequality: An interactionist analysis. *Social Forces* 79:419-52.

Scott, D. B. 1996. Shattering the instrumental-expressive myth: The power of women's networks in corporate-government affairs. *Gender & Society* 10:232-47.

Scott, J. 1991. *Social network analysis*. Newbury Park, CA: Sage.

Smith-Lovin, L., and J. M. McPherson. 1993. You are who you know: A network approach to gender. In *Theory on gender/Feminism on theory*, edited by P. England. Hawthorne, NY: Aldine.

South, S. J., C. Bonjean, W. T. Markham, and J. Corder. 1982. Social structure and intergroup interaction: Men and women of the federal bureaucracy. *American Sociological Review* 47:587-99.

South, S. J., W. T. Markham, C. M Bonjean, and J. Corder. 1987. Sex differences in support for organizational advancement. *Work and Occupations* 14:261-85.

Thomas, D. 1990. The impact of race on managers' experiences of developmental relationships: An intra-organizational study. *Journal of Organizational Behavior* 11:479-92.

Thye, S.R. 2000. A status value theory of power in exchange relations. *American Sociological Review* 65:407-34.

Tilly, C. 1998. *Durable inequality.* Berkeley: University of California Press.

Tsui, A. S., and C. A. O'Reilly III. 1989. Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads. *Academy of Management Journal* 32:402-23.

U.S. Bureau of Labor Statistics. 1996. *News release: BLS reports on the amount of formal and informal training received by employees*. Washington, DC: U.S. Department of Labor.

U.S. Equal Employment Opportunity Commission. 1994. *Job patterns for minorities and women in private industry, 1993*. Washington, DC: Government Printing Office.

Uzzi, B. 1997. Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly* 42:37-70.

Wellman, B. 1983. Network analysis: Some basic principles. In *Sociological theory*, edited by R. Collins. San Francisco: Jossey-Bass.

———. 1985. Domestic work, paid work and net work. In *Understanding personal relationships*, edited by S. Duck and D. Perkman. Newbury Park, CA: Sage.

Wellman, B., and S. Wortley. 1990. Different strokes from different folks: Community ties and social support. *American Journal of Sociology* 96:558-88.

Gail M. McGuire is an assistant professor of sociology at Indiana University at South Bend. Her research focuses on informal networks and stratification in the workplace. She is currently conducting a qualitative study on the micro-level processes underlying gender and race differences in informal networks.