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ScienceDirect
Social Science Research 35 (2006) 668–701
Social Science RESEARCH
www.elsevier.com/locate/ssresearch

White hiring agents' organizational practices and out-group hiring

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Available online 18 August 2005

Abstract

Prevailing accounts of variation in race–sex hiring largely emphasize applicants' characteristics and, to some extent, employers' preferences. In contrast, this study considers how organizational practices, workplace formality, and job characteristics influence the race *and* sex of white hiring agents' most recent hires. Analyses using data from roughly 2000 work establishments confirm that the relationship between organizational practices and out-group hiring, the hiring of applicants not like a hiring agent in terms of race and/or sex, is not simple. Findings imply that the mechanisms linking race and sex out-groups to jobs differ, so certain formal organizational practices will only partly reduce differences in hiring outcomes across race–sex groups. The effects of employee referral use, soft skill screens, skill requirements, and a job's starting wage on out-group hires differ for female and male hiring agents. These results suggest that sex differences in social networks and women's and men's different location on employers' labor queues influence the hiring process.

Keywords: Out-group hiring; Organizational practices; Race–sex differences

1. Introduction

Most current research views race–sex variation in hiring outcomes as a result of supply-side attributes of job applicants (Park, 1999, p. 227; Reskin, 2003, pp. 5–6). For example, researchers have attributed race–sex differences in hiring

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doi:10.1016/j.ssresearch.2005.06.001

outcomes to group differences in human capital characteristics (Browne, 1997; Corcoran, 1999; Smith and Welch, 1989) or group differences in job search techniques and job seekers' social network composition (Campbell, 1988; Elliot, 1999, 2001; Mouw, 2002a,b, 2003; Moore, 1990). These studies often conclude that group differences in education, job referral networks, and job search methods partly account for race–sex variation in job attainment.

On the other hand, several researchers have used data on the employer side of the labor market to explain race–sex variation in hiring outcomes (e.g., Browne and Kennelly, 1999; Kirschenman et al., 1995; Kirschenman and Neckerman, 1991; Leiter et al., unpublished manuscript; Moss and Tilly, 1996, 2001a,b; Neckerman and Kirschenman, 1991; Park, 1999; Shih, 2002; Thomas, 2000; Turner, 1997; Wilson, 1996). Their research results suggest that hiring decisions are *not* race–sex neutral; some employers take applicants' race and sex into account when making hiring decisions. With few exceptions, these studies did not account for the processes that link applicants to jobs or, more generally, the organizational practices associated with hiring (Reskin, 2003, pp. 4, 7–8). For example, employers in Shih's (2002, p. 102) Los Angeles sample characterized black workers, particularly black men, as "unmanageable" and authority-resistant, yet she did not explain what employers did—or failed to do—to block black men's job access. A sample of North Carolina employers reported that they avoided hiring Latinos because to do so would have decreased the status of their workplace (Leiter et al., unpublished manuscript). However, the researchers could not identify what employers did to avoid Latino hiring.

Although these accounts of hiring have merit, they are incomplete because the hiring process is not only related to supply-side characteristics or linked to employers' preferences; recruitment practices that do not seek a broad range of potential workers or screening practices with a disparate impact on members of one race or sex group also affect who gains access to jobs and, ultimately, who an employer hires. Accordingly, an alternative approach that focuses on hiring agents' organizational practices is crucial for understanding race–sex variation in hiring (Sørensen, 2004, p. 10).

Building on this understanding, the present study investigates race–sex variation in hiring outcomes in four urban areas with an eye toward how organizational recruitment and screening practices and, to a lesser extent, workplace formality and job characteristics affect the process. Analyses using data from roughly 2000 white employers in charge of hiring, hereafter hiring agents, seek to answer three questions: (1) How do organizational practices, workplace formality, and job characteristics influence the odds a white hiring agent hires an in-group applicant (of his or her same race and sex) versus an out-group applicant (of a different race and/or sex)? (2) How does the process differ for female and male hiring agents? and (3) To what extent do organizational practices and workplace characteristics have different effects on hires involving *race* versus *sex* out-group applicants?

I categorize hires into one of four types: (1) a "cross-race" hire occurs when an applicant shares the hiring agent's sex but not his or her race, (2) a "cross-sex" hire takes place when an applicant shares the hiring agent's race but not his or her sex, (3) a "cross race–sex hire" occurs when an applicant and hiring agent do not share a

race or sex, and (4) a "race–sex specific in-group hire" takes place when an applicant shares the hiring agent's race *and* sex.[1] Categorizing hires based on a hiring agent's and applicant's race *and* sex is fundamental because racial and gender stratification are not mutually exclusive systems; rather, reward systems tend to value the qualities of white men (Elliot and Smith, 2001, p. 366; Konrad and Linnehan, 1995, p. 789).

The underlying mechanisms linking applicants to jobs may, at the same time, operate differently when an out-group applicant is a different race versus a different sex than the agent. As a result, certain practices may have a negative disparate impact on members of some but not all out-groups. For example, individuals' social networks tend to be more race than sex homogeneous (McPherson et al., 2001, p. 423). Women and men have the opportunity to form sex-integrated contacts because their distribution in the US is relatively even, they work in the same establishments, share households, and are linked by kinship networks. By comparison, residential and workplace race segregation limit cross-race contact. Consequently, when social networks or the evaluation of social interactions play a central role in the hiring process, we might expect them to operate differently when an applicant's race versus sex is different from the hiring agent's.

I focus on the hiring decisions of white hiring agents because they comprise a majority of employers in charge of hiring in the US (Smith, 2002, p. 522; Stoll et al., 2004, p. 283) (for an analysis of black hiring agents' hiring outcomes, see Stoll et al., 2004).[2] Understanding the organizational practice sources of variation in out-group hiring outcomes are fundamental if we are to develop an accurate picture of the creation and maintenance of labor market race and sex segregation and its concomitant inequalities.

The remainder of the paper is arranged as follows. I first briefly discuss three accounts of race–sex hiring discrimination. The first two accounts address the cognitive and social mechanisms motivating hiring agents' decisions while the last account addresses how organizational practices affect hiring decisions. Although analyses focus on the latter, we cannot ignore the former processes because organizational practices can only minimize, not eliminate, them. Cognitive processes shape organizational practices while organizational practices can influence who gets hired, regardless of hiring agents' motives. Next, I describe the advantages of using an organizational practice approach to explain race and sex specific out-group variation in hiring outcomes. I follow by hypothesizing how formal and informal organizational practices and additional workplace and job factors might affect out-group

[1] I use the term "race–sex specific in-group" and "in-group" interchangeably.

[2] Stoll et al.'s (2004) study provides an important model for the current research. They examined the practices and establishment attributes that influenced blacks' hiring outcomes but their research suffers from avoidable problems. They claimed to "adjust for. . .employer behaviors and *preferences*" (emphasis added) (Stoll et al., 2004, p. 282) although they could not empirically measure employer preferences. They also suggested that employer use of affirmative action in recruiting or hiring was a proxy for employers' hiring preferences. The use of affirmative action could just have likely been a proxy for business size or federal contract regulations. My analyses compliment and extend Stoll et al.'s (2004) by taking into account the race *and* sex of hiring agents and hires while avoiding reliance on unmeasured employer preferences to explain findings.

hiring and why we might expect the process to differ somewhat for male and female hiring agents. A description of the data along with a discussion of the methods of analysis precedes presentation of the analytic results and discussion of the results.

2. Prevailing accounts of race–sex hiring discrimination

As a first step in framing my analyses, I identify three accounts of race–sex hiring discrimination: (1) intentional discrimination, (2) unintentional discrimination, and (3) organizational practice discrimination.

2.1. Intentional discrimination

Some scholars have asserted that employers' active, intentional differential treatment on the basis of an applicant's group membership is a primary source of race–sex hiring discrimination. Intentional hiring discrimination can also stem from out-group antipathy such as when an employer refuses to hire an applicant because of his or her distaste for members of that group, beliefs about customer and current employee tastes, or perceptions about other employers' tastes (Becker, 1957, 1971). Intentional discrimination can stem from less animus motives such as when an employer engages in statistical discrimination and knowingly applies group stereotypes to a member of the group and judges him or her on the basis of group membership rather than individual merit (Blank et al., 2004, p. 61; Reskin, 2002, p. 288).

Opportunity hoarding (Tilly, 1998) and social closure (Tomaskovic-Devey, 1993) theories also fall into this category. According to the former, members of the group in power acquire access to jobs using networks and other mechanisms then exclude out-group members. Social closure describes the process whereby those in power attempt to maintain their privilege by restricting access to high-paying or prestigious jobs to same-race and same-sex others (Kaufman, 2002, p. 550; Reskin and McBrier, 2000, p. 212; Tomaskovic-Devey, 1993, pp. 9–12). These latter theories argue that intentional actions to enhance one's in-group, not necessarily animosity toward members of out-groups, motivate employers' hiring decisions.

2.2. Unintentional discrimination

Scholars have identified a second source of hiring discrimination: automatic, non-conscious discrimination (Blank et al., 2004, p. 59; Krieger, 1995; Perdue et al., 1990; Reskin, 2000, 2002). From this perspective, race–sex discrimination occurs independently of motivational processes to favor or harm others and results from employers' non-conscious thought processes (Krieger, 1995, p. 1188). Unintentional discrimination during the hiring process is likely to occur because ordinary, even unconscious cognitive processes predispose individuals to group applicants in terms of social features (e.g., race and sex) thought to signal desirable qualities and spontaneously reward and allocate resources to in-group members (Brewer, 1979, p. 322, 1988,

pp. 6–9; Fryer and Jackson, 2003, p. 3; Macrae and Bodenhausen, 2000, p. 96; Perdue et al., 1990, p. 484; Tajfel and Turner, 1986, p. 13).

2.3. Organizational practice discrimination

Although they instruct us about why employers make certain decisions, the above explanations do not constitute a fully adequate description of hiring discrimination (Blank et al., 2004, p. 63). Whether and how employers' biases and stereotypes manifest in the workplace partly depend on organizational practices that can discriminate in the absence of employer bias or stereotyping (Bielby, 2000, p. 123; Reskin, 2001, p. 568; 2003, p. 4). Consequently, the third account of race–sex hiring discrimination, organizational practice or structural discrimination, looks to the specific practices employers engage in—and the discriminatory practices embedded in these practices—to explain race–sex differences in hiring outcomes (Blank et al., 2004, p. 55). This type of discrimination, which stems from institutional processes and rules, occurs when seemingly neutral organizational rules lead to differential race–sex treatment or when policies and practices differently affect members of different race–sex groups. One example of this phenomenon occurs when applicant recruitment takes places primarily through personal information networks. Such a practice may systematically exclude members of one race or sex group if employers rely solely on the information networks of one group of employees (Petersen et al., 2000, p. 767).

An organizational practice approach has three major advantages over other accounts of race–sex hiring discrimination. First, this approach avoids the reliance on hiring agents' self-reported preferences as explanations of their hiring decisions. Even if researchers ask employers about the hiring process on properly administered surveys, employers are likely to respond with socially acceptable responses (e.g., "I don't discriminate against non-white applicants") meanwhile restricting their applicant pool to members of one race (usually their own) via informal recruitment practices. Although in-depth interviews have the potential to reveal how employers explain and justify their hiring decisions, qualitative interview data does not necessarily address how an employer identified an applicant pool and screened applicants prior to making a hiring decision (Bonilla-Silva and Baiocchi, unpublished manuscript; Browne and Kennelly, 1999; Kirschenman and Neckerman, 1991; Moss and Tilly, 2001a,b; Park, 1999; Wilson, 1996). What is more, even when a hiring agent is aware of rules banning race- and sex-based hiring decisions and intends on making a race- or sex-neutral decision, automatic tendencies to rely on social cues in decision making may render him or her unable to consider an applicant's demographic attributes (DiTomaso and Smith, 1999; Reskin, 2001; Wilson and Brekke, 1994, pp. 117, 121).

Second, organizational practices are the proximate cause of hiring outcomes so including them in employment models avoids having to interpret model residuals as indicators of unmeasured discriminatory practices (Blank et al., 2004, pp. 158–159; Park, 1999, p. 231; Reskin, 2000, p. 323). Since researchers can rarely measure conscious or non-conscious intentions, empirical tests of alternate accounts of race–sex discrimination treat discrimination as an unobserved residual after controlling

for measurable applicant characteristics and workplace contexts that affect hiring outcomes.

Third, an organizational practice approach avoids attributing all observed hiring differences to race–sex differences in education, skill, or job search methods. Because datasets rarely contain all the applicant attributes hiring agents observe when making hiring decisions, comparisons of the hiring outcomes of applicants from different race–sex groups using worker attributes alone are misleading (Bertrand and Mullainathan, 2002, p. 4). Moreover, focusing on applicant differences cannot detect whether employers use different methods to evaluate the individual qualifications of applicants from different groups. For example, one employer in Moss and Tilly's (2001a, p. 234) sample administered a skills test to applicants but admitted that supervisors gave white men the test answers. In this case, even if a non-white or white female applicant was more skilled than a white male applicant, non-neutral testing practices would have likely concealed the difference.

2.4. Organizational practices and hiring outcomes

Workplace bias—conscious or not—is pervasive and although organizational practices cannot prevent hiring agents' reliance on stereotypes or their social categorization of applicants into in- and out-groups, organizational practices can reduce hiring bias (Bielby, 2000, p. 120; Reskin, 2002, p. 299). They do so by permitting or restricting a hiring agent's discretion to act on his or her preferences and thereby discriminate in the hiring process (Bielby, 2000, p. 123; Perry et al., 1994, p. 796; Reskin, 2002, pp. 300–301). The discretion many personnel decisions entail invites stereotyping, evaluation bias, and attribution error on part of the decision maker, and these tend to maintain out-group inequality (Reskin, 2001, p. 3). In this section, I elaborate on how organizational practices and, to a lesser extent, workplace formality and job characteristics shape the discriminatory effects of hiring agents' cognitive and social processes.

2.4.1. Formal recruitment practices

Formal recruiting methods restrict hiring agents' bias because they may provide objective criteria by which a hiring agent can generate an applicant pool (Elliot, 2001, p. 404). In addition, formal recruitment practices have the potential to broaden the applicant pool by reducing the pervasiveness of social network effects on worker selection (Moss and Tilly, 2001a, p. 210). Some formal recruitment practices, such as the use of affirmative action in the recruitment process, can also provide an institutional framework for equal employment opportunity.

2.4.2. Informal recruitment practices

Informal recruitment practices are likely to permit and encourage the cognitive and social mechanisms that generate race–sex hiring discrimination. The most common informal recruitment method, reliance on social networks to recruit workers, permits an applicant's race and sex to play a more prominent role in the hiring process than they do when hiring agents use formal recruitment channels (Elliot, 2001,

p. 404). Intentional discrimination theories, such as statistical discrimination, would predict that when an applicant's race and sex play a central role in the hiring process, hiring agents are likely to rely on race and sex stereotypes to judge the applicant. Likewise, unintentional discrimination theories would predict that when an applicant's race and sex are salient, hiring agents engage in social categorization and would therefore display in-group favoritism in their decisions. Reliance on social networks to recruit workers is also more likely to exclude applicants outside of a hiring agent's race as opposed to sex in-group because despite individuals' tendencies to have socially similar network ties (e.g., Braddock and McPartland, 1987, p. 10; Fernandez and Fernandez-Mateo, unpublished manuscript; Fernandez and Su, 2004, p. 19; Marsden, 1994, p. 981; Marsden and Gorman, 2001, p. 471; Mencken and Winfield, 1999, p. 203; Mouw, 2002a, p. 507; Reskin and McBrier, 2000, p. 214), their ties are more race than sex homogenous (McPherson et al., 2001, pp. 420–426).

2.4.3. Subjective skill screening

After narrowing the labor pool in the recruitment stage and before they make their final hiring decision, hiring agents screen applicants to ensure they have "desirable" qualities. Subjective qualities such as "politeness," "demonstration of motivation," or "work ethic"—what Moss and Tilly (1996, pp. 256–258) called "soft skills"—are increasingly desired by employers but difficult to measure (Cappelli, 1995). When using subjective criteria to make decisions, individuals tend to judge individuals through comparison with others in their in-group (Festinger, 1954, p. 118). Since the judgment of in-group members involves activating individuating information about the self, individuals draw on more knowledge during the process and can better judge in- versus out-group members (Mussweiler and Bodenhausen, 2002, pp. 22–23). If not formally tested, an emphasis on objective or "hard" skills may also decrease out-group hiring. Without an explicit test by which to evaluate applicant attributes, judgment of in-group members tends to favor in-group members (see above). Likewise, employers stereotype the attributes of certain applicant groups. For example, employers in the four metropolitan areas in this study characterized non-whites as lacking necessary "hard skills" (Moss and Tilly, 2001a, Chapter 4, 2001b, p. 627). Chicago-area employers stereotyped black workers as having a poor work ethic (Wilson, 1996, p. 113). If hiring agents stereotype non-white applicants as lacking "soft" and "hard" skills, requiring these skills is likely to screen out cross-race applicants more so than cross-sex applicants.

2.4.4. Workplace formality

Features of a workplace indirectly influence hiring outcomes by affecting the chances that formality exists in an organization's hiring practices. Formalization should reduce a hiring agent's discretion and bias by reducing the possibility of favoritism, subjectivity, and stereotyping that tend to accompany informal practices (Anderson and Tomaskovic-Devey, 1995, p. 349; DiTomaso and Smith, 1999, pp. 6–7; Moss and Tilly, 2001a,b, p. 210; Reskin, 2003, pp. 13–14; Reskin and McBrier, 2000, pp. 213–214; but see also Bielby, 2000, p. 123). In this section, I describe how five workplace features affect formalization and, as a result, hiring outcomes.

I also discuss how two job features—skill demands and pay levels—affect hiring outcomes.

2.4.4.1. Franchise membership. Franchised workplaces belong to multi-establishment firms and operate under formal rules and guidelines determined externally (Marsden, 1994, p. 908). As a result, everything from operating procedures to how workers should dress to the physical arrangement of the workplace are standardized in accordance to the parent organization's policies, regardless of its size, management, or location. Compared to independent establishments, franchised establishments have more centralized decision-making structures and a greater number of formal operating procedures (Kalleberg et al., 1996, p. 326).

2.4.4.2. Establishment size. Establishment size (number of employees) should be positively associated with formality. In small establishments, personal relationships are more frequently a part of the work process than in large ones (Kalleberg et al., 1996, pp. 77–81). Furthermore, large establishments are more likely than small establishments to have sophisticated personnel systems that oversee decisions (Kalleberg et al., 1996, p. 143; Pfeffer, 1977, p. 557). Large establishments are more likely than smaller ones to have full-time human resource departments or a personnel staff to monitor the hiring process, both of which facilitate equitable hiring procedures (Moss and Tilly, 2001a, pp. 209–210). At the same time, establishment size captures community visibility which can be related to fear of litigation or bad press (Holzer, 1996, p. 102; Moss and Tilly, 2001a, p. 218; Stoll et al., 2004, p. 269). All else equal, the larger the establishment, the more inclined employers may be to "follow the books" when hiring to avoid costly and reputation-damaging hiring discrimination charges. In fact, Dobbin et al. (1993, p. 421) concluded that some establishments adopted formalized operating procedures *in order to* avoid judicial sanction.

2.4.4.3. Federal contractors. Firms with at least $50,000 in federal contracts and at least 50 employees are required by executive order to have written affirmative action goals and timetables (Reskin, 1998, p. 9). The goals and timetables required of federal contractors should increase the formality of daily operations along with the hiring process.

2.4.4.4. Unionization. The nature of the effect of unionization on the formalization of operating procedures is unclear. On the one hand, unions have been known to bargain for the formal, bureaucratic hiring standards that would reduce hiring agent discretion (Edelman, 1992, pp. 1549–1550; Moss and Tilly, 2001a,b, p. 222). On the other hand, unions may resist formal policies to monitor hiring practices because such policies could interfere or conflict with labors' practices of honoring seniority or using their own job-referrals systems and job standards (Edelman, 1992, p. 1549). Alternatively, by giving members control over recruiting and hiring, union members may recruit socially similar applicants and perpetuate in-group hires (Cockburn, 1988; Moss and Tilly, 2001a,b, p. 222).

2.4.5. Job characteristics

2.4.5.1. Job skill requirements. Job skill requirements will affect a hiring agent's decision because of the selection costs involved in filling skilled positions. The higher a job's skill requirements, the greater a hiring agent's selection costs and risk because higher skilled jobs demand longer training periods (Reskin and McBrier, 2000, p. 212). When a hire entails risk, hiring agents try to minimize such risk by opting for hires socially similar to them (Salancik and Pfeffer, 1978, p. 146). This leads to an increased chance he or she will make an in-group hire. Unintentional discrimination theories would also predict that the greater the selection costs, the more likely a hiring agent would favor in-group members because individuals are better at judging the skills of in- versus out-group members (Mussweiler and Bodenhausen, 2002, p. 22). Statistical discrimination would also predict that hiring agents who hire for jobs with high skill requirements invoke statistical discrimination as a means of making the "best" hire at minimum cost (see also Bielby, 2000, p. 123). For the same reasons, hiring agents' emphasis on "soft" and "hard" skills should screen out cross-race hires at a greater rate than cross-sex hires, so too should a job's skill requirements.

2.4.5.2. Job starting wage. From the perspective of opportunity hoarding and social closure theories, a job's starting wage ought to affect hiring agents' decisions. According to these theories, hiring agents preserve the best (e.g., highly paying) jobs for in-group members (Kaufman, 2002, p. 550). If hiring agents rank white applicants above applicants of color (Thurow, 1969, p. 48), we might expect this job feature to block cross-race hires more so than cross-sex hires.

2.4.6. Racial composition of the labor source

The racial composition of three labor sources—the applicant pool, the current workforce, and the local population—should affect variation in hires involving non-whites (e.g., cross-race and cross race–sex hires). First, applicant pool demographic composition controls for hiring agents' access to non-white applicants; the greater non-white's share of the applicant pool, the more likely a hiring agent will offer a non-white a job. Second, the presence of non-white workers already in an establishment will affect hires involving non-whites on two accounts: (1) current workers are a readily available labor pool from which a hiring agent can fill vacant positions, and (2) current employees pass job opening information to potential applicants. Because people tend to have race-similar contacts, they pass this information along to race similar others (Fernandez and Fernandez-Mateo, unpublished manuscript; Marsden, 1994, p. 981; McPherson et al., 2001, pp. 420–422; Mouw, 2002a, p. 507). Finally, non-white's share of metropolitan statistical area (MSA) will also affect whether a hiring agent will hire cross-race or cross race–sex applicants. For instance, it is easier for a white hiring agent in a 75% white MSA to recruit and hire a non-white applicant than it is for a white hiring agent in a 95% white MSA to do so. I anticipate that the effect of non-white's share of the applicant pool, workforce, and MSA on hires involving non-whites will be conditional upon hiring agent's use of employee referrals. If

current employees refer applicants who are similar to them in terms of race, the race composition of workers ought to closely mirror the race of the potential labor supply.

2.5. Statement of formal hypotheses

Drawing on the foregoing discussion, I propose and test the following hypotheses:[3]

Hypothesis 1. Formal recruitment practices will *increase* the odds a hiring agent makes an out-group hire. I do no anticipate the effect of formal recruitment practices to differently affect cross-race versus cross-sex hires.

Hypothesis 2a. Informal recruitment practices will *decrease* the odds a hiring agent makes an out-group hire.

Hypothesis 2b. Informal recruitment practices should have a stronger negative effect on cross-race than cross-sex hires.

Hypothesis 3a. Emphasis on subjective skills will *decrease* the odds a hiring agent makes an out-group hire.

Hypothesis 3b. Emphasis on subjective skills should have a stronger negative effect on cross-race than cross-sex hires.

Hypothesis 4. The more formal the operating procedures in a hiring agent's workplace, the *greater* the odds she or he will make an out-group hire; out-group hires will occur more often in larger versus small establishments, franchised versus independently owned workplaces, and in workplaces whose main industry is comprised of a large share of federal contractors.[4] I do not anticipate the effect of workplace formality to affect cross-race and cross-sex hires differently.

Hypothesis 5a. The greater the job's skill requirements, the *lower* the odds a hiring agent will make an out-group hire. Increased skill requirements should have a stronger negative effect on cross-race than cross-sex hires.

Hypothesis 5b. The greater the job's starting wage, the *lower* the odds a hiring agent will make an out-group hire. Increased starting wage should have a stronger negative effect on cross-race than cross-sex hires.

Hypothesis 6. The greater non-white's share of the potential applicant pool, the *greater* the odds a hiring agent will make a cross-race or cross race–sex hire. The effects of potential applicant pool race composition on hiring outcomes will be conditional upon hiring agent's use of employee referrals for recruitment.

[3] Although hypotheses focus primarily on *cross-race* and *cross-sex* hires, tables include results for *cross race–sex* hires, one category of the dependent variable.

[4] I do not predict a direction of effect for unionization.

2.5.1. Anticipated differences across hiring agent sex

Because women and men have different workplace experiences, we might expect the effect of certain practices and job attributes on cross-sex hires to differ for female and male hiring agents.[5] First, the effects of practices involving network ties on cross-sex hires may differ for female and male hiring agents. Compared to women, men report knowing workers in a greater range of occupations (Campbell, 1988, p. 189) and they have workplace authority over women *and* men; when women have organizational authority, it tends to be over other women (Smith, 2002, p. 533). At the same time, however, men have more and stronger sex homophilous co-worker ties than women (Ibarra, 1992, p. 422; Straits, 1996, p. 32).

Second, because white men typically occupy the highest rungs on hiring agents' job queues (Kaufman, 2002, p. 551; Reskin and Roos, 1990, pp. 29–38), agents may favor white men for the "best" positions, those with the highest skill requirements and pay levels. White male applicants comprise the *out*-group for white female hiring agents but the *in*-group for white male hiring agents, so out-group hiring might differ for white female and male agents.

Third, emphasis on "soft skills"—typically feminine skills such as "neatness" or "politeness"—may advantage women over men in the hiring process. As women comprise the out-group for male hiring agents but the in-group for female agents, we might expect the effect of soft skill screens on out-group hiring to differ for female and male hiring agents. To allow for these possible differences, I estimate separate models for male and female hiring agents and test for significant differences in the effects of predictor variables on the outcome across hiring agent sex.

3. Data, measures, and methods

Data for analyses come from the Multi-City Employer Telephone Survey (MCTES), a sample of 3510 establishments in Atlanta, Boston, Detroit, and Los Angeles (Holzer et al., 1998). Collected as part of the Multi-City Project (June 1992 through May 1994), these data provide demand-side information about the employers of employed respondents in the Multi-City household sample (for details see O'Connor et al., 2001, pp. 1–33). Roughly one-third of the employer sample ($n = 1179$) was identified through the household respondent. To select these employers, interviewers asked employed respondents to provide the name and contact information of their employer. While preserving the anonymity of the employee, interviewers contacted and interviewed these employers. The remaining two-thirds ($n = 2206$) of the employer sample was drawn from regional employment directories provided by Survey Sampling Incorporated (SSI) in a probability sample drawn 25% from establishments with 1–19 employees, 50% from establishments with 20–99 employees, and 25% from establishments with 100 or more employees. Overall, the response rate was 67% among screened establishments (Holzer, 1996, p. 16).

[5] I have no theoretical reason to suspect white women and men will hire non-white applicants at different rates.

Linking establishments selected through household respondents and those sampled by SSI yield an establishment sample of 3510. To arrive at a final sample of 1976 establishments, I made several modifications. First, I eliminated 416 establishments whose hiring agent was Asian, black, or Latino. Second, I dropped an additional 78 establishments from the analysis because the reported starting wage for the position most recently filled was less than minimum wage ($4.25 at the time the data was collected) or unrealistic for the occupation (e.g., when a janitor's starting hourly pay was $38.00). Third, interviewers asked hiring agents to provide information about the establishment's most recent hire *not* requiring a college degree. Eighty-eight percent of hiring agents answered in reference to a job that did not require a college degree. I eliminated the remaining 12% (236 establishments) that last filled a higher-level position because the hiring process likely differs for low- and high-level jobs (see Reskin and McBrier, 2000, p. 212). The final sample consists of 1976 establishments and analyses focus on the most recent non-college hire in these establishments. Coding details and descriptive statistics for predictor variables appear in Appendix A.

3.1. Dependent variables

The outcome of interest is the race *and* sex of the most recent hire. I constructed a variable denoting whether, most recently, a white male or female hiring agent made a: (1) race–sex specific in-group hire (the reference category), (2) cross-race hire, (3) cross-sex hire, or (4) cross race *and* sex hire. For example, a race–sex specific in-group hire is a *white female* for a female hiring agent but it is a *white male* for a male hiring agent.

3.1.1. Formal recruitment practices

The recruitment techniques I discuss below refer to those used by a hiring agent to locate the most recent hire, the hire I consider in the outcome. I measure formal recruitment with seven dichotomous variables indicating whether a hiring agent: (1) *posted help-wanted signs*, (2) *placed job advertisements in the newspaper*, (3) *used state employment services*, (4) *used private employment services or hiring agents*, (5) *obtained referrals from a union*, (6) *obtained referrals from a school*, or (7) *obtained referrals from a community agency*. An additional dichotomous variable indicates that *affirmative action/equal employment opportunity* laws played a role in recruiting decisions.

3.1.2. Informal recruitment practices

I measure informal recruitment with two dichotomous variables. The first indicates whether a hiring agent *asked for or accepted referrals from current employees*. The second indicates whether a hiring agent *obtained referrals from friends or acquaintances*.

3.1.3. Subjective skill screens

Hiring agents described whether six applicant qualities were important and from their responses I created two scales detailing the applicant qualities a hiring agent

considers important. I coded hiring agent responses as follows: "1" if the hiring agent considered the quality "very important" or "somewhat important" and "0" if the employer thought the quality was "never important." The first scale indicates an emphasis on "*soft skills*" and was created by averaging four qualities deemed important by the hiring agent: (1) attractive physical appearance, (2) physical neatness, (3) politeness, and (4) demonstration of motivation ($\alpha = 0.58$).[6]

I created a second to measure hiring agent's emphasis on technical skills by averaging two measures: (1) emphasis on verbal skills, and (2) emphasis on the ability to speak English well ($\alpha = 0.70$). Because this scale only includes communication skills, I refer to it as the "*communication skill*" scale. I consider this to be a subjective screen because hiring agents did not use a formal skills test to measure this skill; instead, hiring agents' assessment of this skill was subjective.

3.1.4. Workplace formality

Models include measures of workplace formality in order to distinguish the effects of formality on hiring outcomes from the effects of organizational practices. I include a dichotomous measure of *franchise membership* in models. Hiring agents were asked: "Is this a franchise?" and responded either "yes" (coded 1), or "no" (coded 0).

The second workplace characteristic, *establishment size*, is the natural logarithm of the number of employees in the establishment as reported by the hiring agent.

I appended a measure of the share of establishments in an establishment's main industry with *federal contracts* to each establishment's 1972 SIC code, the code included with the original dataset. The federal contract data are based on establishment EEO-1 reports of 1990 data and were furnished by the Equal Employment Opportunity Commission (2003).

Establishment *unionization rate* is the percent of non-professional and non-managerial employees covered by a union or collective bargaining.

3.1.5. Job characteristics

Hiring agents reported on six *skill requirements* of the most recently filled job. The requirements reported were: (1) talking face-to-face with customers/clients, (2) talking over the phone with customers/clients, (3) reading instructions at least one paragraph long, (4) writing paragraphs or memos, (5) doing arithmetic or other computations, and (6) working with a computer. If a hiring agent reported that the job required the skills "daily," I assigned it a score of 4; if the job required the skill "once a week," I gave it a score of 3; if it demanded the skill "once a month," I gave it a score of 2; if it "never" demanded the skill I scored it 1. I averaged these requirements to compute a job skill requirement scale ranging from 6 to 24 ($\alpha = 0.72$).

[6] I experimented with scale components to increase the reliability of the "soft skill" scale but was unable to obtain a higher reliability score than the one reported.

Hiring agents reported the *starting hourly wage* for the job most recently filled. If the hiring agent reported starting salary in yearly, month, or weekly units, I converted their response into hourly pay.

3.1.6. Racial composition of the labor source[7]

Analyses include only white hiring agents so race–ethnic minorities are the out-group for whites. I include a measure of the proportion of *non-white (black and Latino) applicants* a hiring agent received in the past year. To test the possibility that an establishment's current race/ethnic composition affects hiring outcomes, analyses include a variable indicating the proportion of *non-white non-professional workers* currently in an establishment.[8] The local race–ethnic composition provides varying opportunities for white hiring agent contact with non-whites and for making an out-group hire so models include a measure of the proportion of the *non-white population* in an establishment's metropolitan statistical area (MSA).

It is possible that the relationship between certain predictor variables and out-group hiring are non-linear. For example, the effects of out-group's share of the likely applicant pool on out-group hiring may increase at an *increasing* rate. Any increase in non-white's share of the applicant pool or local population corresponds to a decrease in the share of white applicants and local residents and a likely drop in the odds a hiring agent hires a white applicant. It is also possible that the effect of minority's share of the current workforce on non-white hiring may increase at a *decreasing* rate because at some point current employees may exhaust their network of same-race referrals. I include the squared and cubed terms of non-white's share of the applicant pool, workforce, and MSA to capture two possible non-linearities, such as those described above.

To test the possibility that the effect of hiring agents' use of current employee referrals on cross-race and cross race–sex hires depends on non-white's share of the potential applicant pool, I included three product terms in models to test these possibilities: (1) *non-white's share of applicant pool* × *accepted referrals from current employees*, (2) *non-white's share of current workforce* × *accepted referrals from current employees*, and (3) *non-white's share of MSA* × *accepted referrals from current employees.*

3.2. Methods

I estimated multinomial logistic regression models with the four categories of most recent hire's race and sex as the dependent variable. I omit the category

[7] Ideally, one would want to control for the sex composition of the labor pool but the applicant and workforce sex composition are missing for roughly half of the sample because survey administrators did not collect this information in Atlanta and Detroit. In analyses not shown, I dropped these cities from the sample and estimated models including the race–sex composition of applicants and the workforce. Results were not substantively different from those presented, so I omit this measure to prevent having to impute these values for half the sample.

[8] Data limitations prevent me from measuring non-whites' share of the *entire* workforce.

of "race–sex specific in-group" hire so results compared the odds of three types of out-group hires to this category.

To allow for the possibility that coefficients have a different effect on out-group hires for female and male hiring agents, I estimated separate models for female and male hiring agents (not shown). However, to avoid presenting different slopes for female and male agents when differences are not statistically significant, I employed a strategy developed by England et al. (1999). I estimated a model pooling male and female hiring agents that included a dichotomous variable representing a hiring agent's sex as well as interactions of this variable and each of the predictor variables (one at a time). If the interaction was statistically significant, I reported both the male and female coefficients in the table and marked the difference with bold face type. If I reported one coefficient in the table, this indicates female and male hiring agent's slopes on the variable did not differ significantly. I interpret the pooled slope as an adequate estimate of the effect of a variable on out-group hiring for female and male hiring agents.

I employ multiple imputation (MI) to handle missing data. MI is superior to other methods of handling missing data because it estimates more accurate variances and covariances of variables with missing data (Allison, 2001; Schafer, 1997).[9] To facilitate coefficient interpretation, I transformed unstandardized β coefficients to odds ratios with the formula

$$(e^{\beta} - 1) \times 100.$$

This transformation allows me to describe the effects of a one-unit change in a continuous independent variable, or in the case of a dichotomous independent variable the change relative to the omitted category, on the percentage change in odds that a hiring agent hired an out-group applicant versus an applicant in one's race and sex in-group (Allison, 1999). An exponentiated coefficient of one leaves the odds of an out-group hire unchanged, a coefficient greater than one *increases* the odds, while a coefficient less than one *decreases* the odds (Pampel, 2000, p. 22).

Before proceeding with analyses, it is necessary to raise two data-related caveats. First, the sample consists of jobs that do *not* require a college degree. Consequently, results are generalizable to non-college jobs. Because filling higher level jobs entails greater risk and employers try to eliminate risk by relying on the socially similar, results may understate the extent to which hiring agents engage in the hiring of out-group professionals (Mayhew, 1968, pp. 110–111; Reskin and McBrier, 2000, p. 212).

Second, to accurately study the hiring process, data that includes demand-side, supply-side, and contextual labor market measures are required. Although the MCTES data are excellent in several respects—they contain detailed measures of recruiting and screening practices and applicant pool race–ethnic composition—the dataset does not contain information about supply-side factors. Without a control for applicant skill composition, controls for the racial composition of the

[9] Results from identical models using marginal mean imputation to handle missing data (not shown) were substantively similar.

labor source are likely picking up unmeasured supply-side applicant features, such as skill or social networks, that influence the race of the most recent hire (see also Stoll et al., 2004, p. 274). Despite these limitations, I know of no publicly available datasets that have these measures and the detailed organizational practice measures available in the MCTES.

4. Results

As a point of departure, it is useful to describe hiring agents' most recent hires. Table 1 summarizes these hires without controls for other factors that affect hiring outcomes.

Although intentional and unintentional discrimination theories would suggest in-group race–sex hires would be most common, they are neither the exception nor the norm. Just over one-fifth (21%) of white male hiring agents most recently hired a white male applicant while 28% of white female hiring agents most recently hired a white female. Just less than one quarter of male hiring agents (22%) and female hiring agents (24%) hired an applicant outside of his or her race *and* sex group. Seventeen percent of white male and 14% of white female hiring agents' most recent hires were cross-race hires making cross-race hires the *least* likely outcome for women and men. Cross-sex hires were the most common form of out-group hiring; 33% of most recent hires involved a white female hiring agent hiring a white male while 39% of most recent hires involved a white male hiring agent hiring a white female applicant.

4.1. Sources of out-group hiring

To test hiring outcomes more formally, I estimated a multinomial model with the four categories of hires as the dependent variable: (1) cross race–sex, (2) only cross-race, (3) only cross-sex, and (4) race–sex specific in-group (the reference category). The results from these analyses appear in Table 2.

Table 1
Observed and adjusted distribution of most recent hire race–sex

Most recent hire	Male hiring agent		Female hiring agent	
	n	Observed (%)	*n*	Observed (%)
In-group race and sex (ref. category)	190	21	301	28
Cross-race[a]	153	17	154	14
Cross-sex	355	39	367	33
Cross-race and sex	197	22	259	24
	$n = 895$		$n = 1081$	

Source. Multi-City Telephone Employer Survey.

[a] Twenty-two percent of white male hiring agents' most recent hires were black and 15% were Latino. Twenty-two percent of female hiring agents' most recent hires were black and 16% were Latino.

As results will show, formal and informal recruitment practices are not consistently related to out-group hiring; they differ in effect for cross-race versus cross-sex hires. The placement of newspaper advertisements affected cross-sex outcomes, but not cross-race outcomes while the use of state employment service and community referrals increased the odds of a cross-race but not cross-sex hire. Practices that relied on friend or acquaintance referrals increased cross-sex but not cross-race hires. Hiring agents' emphasis on communication skills reduced the odds of hires involving non-whites but it did not affect cross-sex hire outcomes. Meanwhile, increased skill requirements decreased the odds of all types of out-group hires (for female agents) while increased starting wage decreased the odds of all out-group hires (for male agents).

The effects of some practices on hiring outcomes also differed for female and male hiring agents. Indeed, out-group hiring outcomes are more consistent with hypotheses for female than male hiring agents. Two practices—use of school referrals and emphasis on soft skills—affected male hiring agents' but not female agents' hiring outcomes. Additional practices and job features—namely, job skill requirements, industry-wide presence of federal contracts, and job starting wage—had the opposite effect on out-group hires for female and male hiring agents. Below I describe results from multivariate analyses and offer explanations for the observed variation in the hiring process when applicants are members of race versus sex out-groups and for the patterns of difference across hiring agent sex.

4.2. Formal recruitment practices

Regarding Hypothesis 1—that formal recruitment practices would *increase* the odds a hiring agent makes an out-group hire—a close look at Table 2 reveals that few formal recruitment practices are related to out-group hiring. At the same time, the effects of three practices on hiring outcomes differ significantly for female and male hiring agents.

The net odds a hiring agent made a cross race–sex versus in-group hire were 51% higher when he or she posted a help-wanted sign. The effect of placing a newspaper advertisement on the odds of making a cross-sex versus in-group hire differed for female and male hiring agents. For male agents, placing an advertisement was not related to hiring outcomes. For female hiring agents, however, the net odds she hired a male versus white female were 30% lower when she placed an advertisement, but the significance level was marginal ($p < .10$). The net odds a female hiring agent hired a non-white applicant versus a white female were 65% *higher* if she used a state employment service, a recruiting practice used by 31% of female and 39% of male hiring agents. For this outcome, too, the significance level was marginal ($p < .10$). The same practice had no effect on the hiring outcomes of male agents.

Hiring agents' use of a community agency to obtain referrals, a practice used by 27% of male and 21% of female hiring agents, increased the net odds he or she made a cross race–sex and cross-race hire. Specifically, this practice increased the net odds of a cross race–sex versus in-group hire by 73% while it increased the net odds a hiring agent made a cross-race hire by 48% ($p < .10$).

Table 2
Multinomial regression results predicting out-group hiring

	Most recent hire is a race–sex in-group vs											
	Cross-race and sex				Cross-race only				Cross-sex only			
	β		e^{β}		β		e^{β}		β		e^{β}	
Formal recruitment practices												
Help wanted sign	0.41* (0.19)		1.51*		0.01 (0.18)		1.01		0.004 (0.15)			
Newspaper advertisment	−0.23 (0.18)		0.79		−0.03 (0.16)		0.97		**M**	**F**	M	F
									0.25 (0.20)	**−0.35† (0.18)**	1.28	0.70
State employment service referrals	0.26 (0.20)		1.30		**M**	**F**	M	F	0.08 (0.15)		1.08	
					−0.21 (0.29)	**0.50† (0.26)**	0.81	1.65				
Private services/Hire agent referrals	−0.01 (0.21)		0.99		−0.29 (0.20)		0.75		−0.19 (0.16)		0.83	
Community agency referrals	0.55* (0.22)		1.73*		0.39† (0.21)		1.48†		0.29 (0.18)		1.34	
School referrals	**M**	**F**	M	F	**M**	**F**	M	F	**M**	**F**	M	F
	−0.95 (0.31)**	**−0.10 (0.28)**	0.39	0.90	**−0.69* (0.29)**	**−0.13 (0.25)**	0.50	0.88	**−0.62** (0.23)**	**−0.05 (0.21)**	0.54	0.95
Union referrals	−0.40 (0.35)		0.67		0.10 (0.32)		1.11		−0.32 (0.28)		0.73	
AA used in recruitment	−0.27 (0.19)		0.76		−0.03 (0.16)		0.97		0.04 (0.13)		1.04	
Informal recruitment practices												
Employee referrals	−0.36 (0.29)		0.70		−0.31 (0.26)		0.73		**M**	**F**	M	F
									0.39 (0.25)	**−0.49† (0.22)**	1.48	0.61
Friend/acquaintance referrals	−0.15 (0.19)		0.86		−0.05 (0.17)		0.95		0.29* (0.13)		1.34*	
Subjective skill screens												
Emphasize "soft" skills	0.06 (0.41)		1.06		**M**	**F**	M	F	**M**	**F**	M	F
					1.31* (0.62)	**−0.25 (0.51)**	3.71	0.78	**1.51** (0.49)**	**−0.09 (0.42)**	4.53	0.91
Emphasize communication skills	−0.74* (0.37)		0.48*		−0.38 (0.35)		0.68		−0.21 (0.29)		0.81	

(*continued on next page*)

Table 2 (*continued*)

	Most recent hire is a race–sex in-group vs											
	Cross-race and sex				Cross-race only				Cross-sex only			
	β		e^{β}		β		e^{β}		β		e^{β}	
Workplace formality												
Franchise	0.25 (0.32)		1.28		**M**	**F**	M	F	−0.06 (0.25)		0.94	
					−0.56 (0.47)	**0.87* (0.40)**	0.57	2.39*				
(log) Establishment size	0.10* (0.05)		1.11*		0.05 (0.04)		1.05		−0.08* (0.03)		0.92*	
Prop. establishment in industry w/federals contracts	−0.10 (0.45)		0.90		**M**	**F**	M	F	−0.03 (0.32)		0.97	
					−1.09* (0.60)	**0.93† (0.55)**	0.33*	2.53†				
Establishment unionization rate	**M**	**F**	M	F	**M**	**F**	M	F	0.05 (0.22)		1.05	
	−0.58 (0.47)	**1.02** (0.37)**	0.56	2.77**	**−0.44 (0.46)**	**0.71* (0.36)**	0.64	2.03				
Job characteristics												
Job skill requirements	−0.05** (0.02)		0.95**		**M**	**F**	M	F	**M**	**F**	M	F
					0.10*** (0.02)	**−0.19*** (0.02)**	1.11	0.83	**0.12*** (0.02)**	**−0.19*** (0.02)**	1.13	0.83
Job starting hourly wage	−0.10*** (0.03)		0.90***		**M**	**F**	M	F	**M**	**F**	M	F
					−0.24*** (0.05)	**.02 (0.03)**	0.79	1.02	**−0.07** (0.03)**	**0.14*** (0.03)**	0.93	1.15
Racial composition of the labor source												
Non-white's share of applicant pool	0.66** (0.29)		1.93**		0.98*** (0.2)		2.66***		0.11 (0.25)		1.12	
Non-white's share of workforce	**M**	**F**	M	F	**M**	**F**	M	F	−0.02 (0.56)		0.98	
	2.65*** (0.54)	**1.01 (1.24)**	14.15	2.75	**3.16*** (0.57)**	**0.98 (0.88)**	23.58	2.61				
Non-white's share of MSA	2.54***(0.55)		12.68***		1.44** (0.49)		4.22**		0.19 (0.45)		1.21	
Interaction												
Employee referrals × non-white's share of workforce	**M**	**F**	M	F	**M**	**F**	M	F	ns		ns	
	ns	**2.31† (1.67)**	ns	10.08	**ns**	**1.89* (0.89)**	ns	6.62*				
Constant	−0.13 0.68)		0.88		0.15 (0.59)		1.16		1.06* (0.49)		2.87*	
Max. rescaled R^2					0.34							
Likelihood ratio χ^2					4530.19							

Source. Multi-City Employer Telephone Survey; $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$ (two-tailed). Standard errors in parentheses. Bold letter denotes coefficient's effect significantly different for female and male hiring agents at $p < 0.10$.

A third practice, hiring agent's use of school referrals, was differently related to female and male hiring agents' hiring outcomes. The practice was not related to women's hiring outcomes but the odds a male hiring agent hired any out-group applicant versus a white male were *lower* when he obtained applicant referrals from schools. At first glance, this finding may seem puzzling but Miller and Rosenbaum (1997) shed light on this unexpected finding. Their interviews with Chicago employers revealed that employers' hiring decisions were *not* correlated with teacher ratings of applicants. In fact, employers did not trust teachers to provide accurate or valuable applicant information. It is possible that hiring agents in this sample acted in a similar vein and either judged referrals from schools more harshly than referrals from other formal sources or ignored them all together. Another plausible explanation for this unanticipated finding, at least for hires involving non-white applicants, is that most applicants may have attended (or currently attend) inner-city schools. Employers in Kirschenman and Neckerman's (1991, p. 215) Chicago sample viewed applicants from inner city schools as less qualified than other applicants. If school referrals from inner-city applicants highlight their inner-city background, this referral source may decrease their appeal to hiring agents. Supply-side data about an applicant's educational credentials offer one way to distinguish between these possible explanations.

The unexpected sex differences in the effects of newspaper advertisement placement, state employment service referrals, and school referrals on out-group hires deserves further attention. I speculate the difference is related to the fact that men have more same-sex coworker ties than women (Straits, 1996, p. 29; Ibarra, 1992, p. 422). Consequently, even when he uses formal referrals methods, a male agents' informal network ties with other men might "cancel out" the effects of formal practices linked to out-group hiring outcomes.

Three formal recruitment practices—the use of private agency/hiring agent referrals, union referrals, and use of affirmative action in recruitment—were not related to out-group hiring for either male or female agents. With regard to the latter, data limitations prevent me from identifying *how* a hiring agent practiced affirmative action (e.g., did the hiring agent merely identify him or herself as an equal opportunity employer in job advertisements? Did an EEO manager oversee the hiring process?). I can only speculate that the affirmative action practice was symbolic and lacked the organizational support to make it effective (Edelman and Petterson, 1999, p. 113).

4.3. Informal recruitment practices

Hypothesis 2 speculated that hiring agents' use of informal recruitment practices would decrease the odds he or she made an out-group hire, but that the effect would differ for cross-race and cross-sex hiring outcomes. The data support this hypothesis and demonstrate that a reliance on employee referrals differently affects female and male agents' cross-sex hiring outcomes.

Use of employee referral networks, a recruitment practice used by 82% of male and female hiring agents, *decreased* the odds a female hiring agent hired a male applicant

but the practice was not related to men's hiring outcomes. More specifically, employee referral use among female hiring agents reduced the odds she hired a male applicant by 39%, but the significance level was not especially strong ($p < .10$).[10] Because women's co-worker ties are more sex heterogeneous than men's (Ibarra, 1992, p. 422; Straits, 1996, p. 29), we would not expect this outcome. However, as Ibarra (1992, p. 423) pointed out, women rely on their same-sex co-worker ties for social support and friendship and their male ties for instrumental access. The former type of tie may be more beneficial for producing trustworthy applicant referrals than the latter.

Hiring agents' reliance on friends or acquaintances to generate referrals, a practice that 31% of male and 34% of female hiring agents engaged in, *increased* the odds he or she made a cross-sex versus in-group hire. The practice did not influence the odds of a cross-race or cross race–sex hire, however. Although homophily and social network theories would predict a reliance on friends and acquaintances would *reduce* out-group hiring, this finding is not beyond explanation. As I noted above, segregation at work and in neighborhoods separates individuals of the opposite race and few social activities unite individuals from different race groups. On the other hand, women and men form sex integrated social ties at home and via kinship networks. If social contacts are likely to be of the opposite sex, but not the opposite race, it is not surprising that friends and acquaintances generate cross-sex contacts. What is more, friends or acquaintances may provide a hiring agent with information she or he may not otherwise have access to (e.g., the applicant's personality or likeability) (Elliot, 2001, p. 403). Thus, by providing extra information about an applicant, friend or acquaintance referrals can lower the "risk" of hiring someone outside of one's sex group.

4.4. Subjective skill screens

The third hypothesis—that hiring agent emphasis on subjective skill screens would *decrease* the odds of an out-group hire but that the effect would be more negative for cross-race than cross-sex hiring outcomes—received mixed support. What is more, the effect of subjective skill screens differed when women versus men comprised the out-group. Female hiring agents' reliance on "soft skill" or communication skill screens did not affect her hiring outcomes. On the other hand, male hiring agents' emphasis on "soft skills" *increased* the odds he hired a white female versus a white male by about 4.5 times. In other words, an emphasis on "soft skills"—traditionally feminine skills including physical attractiveness and neatness—benefited female applicants but not male applicants when the agent in charge of hiring was male. Contrary to expectations, the same practice significantly increased the odds a male hiring agent hired a non-white applicant versus a white male. This unexpected finding deserves further attention because it contradicts previous research findings that soft skill emphasis hurts black men's employment chances (Moss and Tilly, 1996).

[10] These are the odds when non-whites do not comprise any share of the non-professional workforce because the model includes the product term: employee referral × non-white's share of the non-professional workforce.

Hiring agents' emphasis on communication skills reduced the odds he or she hired an applicant outside of his race–sex in-group; the net odds a white hiring agent hired a cross race–sex applicant were 52% lower than the odds he or she hired an in-group applicant. If hiring agents perceive non-white applicants as having weaker communication skills than racially similar applicants, a prediction that statistical discrimination theory would support, this finding is expected (see Moss and Tilly, 2001a, Chapter 4, 2001b, p. 627). Moreover, if society stereotypes the skills being assessed—in this case, speaking skills—as being poor among non-whites, whites' evaluation of non-white's subjective skills may be especially difficult.

4.5. Workplace formality

According to Hypothesis 4, certain workplace features should increase out-group hiring by affecting the chances that formality exists in an organization's operating procedures. The effects of several establishment characteristics on out-group hiring outcomes differed significantly across hiring agent sex. First, among female hiring agents, belonging to a franchise more than doubled the net odds she hired a non-white versus white female applicant. Male hiring agents' hiring outcomes were not affected by this formal workplace feature. This may reflect a difference in the type of franchises women and men own or work for. Women-owned franchises are more likely than male-owned franchises to be in the service sector, a sector employing a disproportionate share of non-white workers (Bates, 1996, p. 1). Second, for female and male hiring agents alike, the larger the establishment, the greater the odds a hiring agent made a cross race–sex versus in-group hire. However, the larger the establishment, the *lower* the net odds he or she made a cross-sex hire. Third, the extent to which the establishment's main industry has federal contracts lowered male hiring agents' odds of making a cross-race versus in-group hire by roughly 70%, but it increased women's odds of a cross-race hire, although the effect was only marginally significant ($p < .10$).[11] Fourth, an establishment's unionization rate was unrelated to male agents' hiring outcomes but increased unionization increased women's net odds of making a hire involving a non-white applicant.

The formality associated with workplace features is, for the most part, negatively related to male agents' hiring outcomes while positively related to female agents' outcomes. This pattern of findings is consistent with previous research; men have more same-sex coworker ties than women (Ibarra, 1992, p. 422; Straits, 1996, p. 29). Consequently, being in a work setting with formal procedures may not be enough to "cancel out" the effects of male agents' informal networks that lead, more often than not, to in-group hires.

More generally, these formal arrangements may not have affected out-group hiring because the workplace may not have monitored the hiring process despite its po-

[11] Squared and cubed terms of *proportion of establishments in industry with federal contracts* and a set of dichotomous variables designed to capture other non-linear effects (0–10%, 11–20%, 21–30%, etc.) were not significant.

tential formality. Without explicit accountability checks and regular monitoring of an establishment's hiring patterns by race and sex, formalized operating procedures may be nothing more than a nominal form of minimizing ascriptive bias (Bielby, 2000, p. 126). Data limitations prevent me from measuring whether an establishment monitors the practices of its hiring agents so I can only speculate that the absence of enforcement of formal operating procedures explains variation in the effects of workplace formality on out-group hires.

4.6. Job characteristics

Hypothesis 5 predicted that the greater the job's skill requirements, the *lower* the odds a hiring agent would make an out-group hire, but that increased skill requirements would have a stronger negative effect on cross-race than cross-sex hires. Job skill requirements are related to out-group hiring in the expected manner for female hiring agents, but not male agents. In particular, a one-unit increase in the job skill demand scale yielded a net 17% decrease in the odds she made a cross-race or a cross-sex versus in-group hire (data do not support the expectation that skill requirements would have a greater negative effect on cross-race versus cross-sex hires). Among male agents, the opposite held true for cross-race and cross-sex hiring outcomes; as job skill requirements increased, the net odds he hired a non-white applicant increased by 11% while the net odds he hired a female applicant compared to a white male applicant increased by 13%. For female and male agents, a one unit increase in job skill demand lowered the net odds of a cross race–sex hire versus in-group hire by 5%. Recall that the positions being filled do not require a college degree. Perhaps male agents' preferences for other white men are weaker among low versus high skilled positions. Opportunity hoarding and social closure theories predict that white men attempt to maintain their privilege by giving white men access to *high-paying* or *prestigious* jobs (Kaufman, 2002, p. 550; Reskin and McBrier, 2000, p. 212; Tomaskovic-Devey, 1993, pp. 9–12). Given this, it seems plausible that white male hiring agents may be more willing to hire an out-group applicant in lieu of a white male for a low skill job.

Hypothesis 5 also predicted the greater a job's starting hourly wage, the lower the odds a hiring agent would make an out-group hire, but that the increase would have a stronger negative effect on cross-race than cross-sex hires. Data support this prediction, at least among male hiring agents. The higher the job's starting pay, the lower the net odds a male hiring agent hired any out-group applicant versus a white male. Moreover, the effect is more negative for cross-race than cross-sex hires. Higher starting pay was associated with *increased* net odds of a cross-sex hire among female hiring agents, however. In other words, as wages increased, the net odds a white female hired a white male instead of a white female also increased. If hiring agents rank white men above non-whites and white women in their labor queues, we would expect to see a different effect of starting wage on hires involving white male applicants (e.g., Thurow, 1969). In fact, this finding is consistent with the idea that all hiring agents reserve the highest paying jobs for white men.

4.7. Racial composition of the labor source

Until now I have discussed the organizational practices and workplace and job characteristics that influence out-group hiring outcomes. As Hypothesis 6 predicted, additional market features affect hires involving non-white applicants by influencing the racial composition of the source of labor. Indeed, strong predictors of cross-race hiring outcomes include non-whites' share of the applicant pool, current establishment non-professional workforce, and local labor pool. As non-white's share of applicants increased, the net odds a male or female hiring agent made a cross race–sex hire also increased. For example, increasing non-white's share of the applicant pool from 25 to 43% (the pooled mean) increased the net odds a hiring agent made a cross race–sex hire versus in-group hire by roughly 8%.[12]

Non-whites' share of the current workforce influenced the odds of hires involving non-white applicants. For female hiring agents, the effect depended on her use of current employee networks for referrals. When a female hiring agent's current workforce was at the mean value (31%) and she used employee referrals, the odds she made a cross race–sex hire were negative. When her workforce was 50% non-white, the odds she made a cross race–sex hire were positive when she used employee referrals. Among male hiring agents, non-whites' share of the workforce had a positive and monotonic effect on the odds he made a hire involving a non-white applicant. Specifically, his net odds of making a cross race–sex hire increased 14 times while the net odds he made a cross-race hire increased 24 times.

Finally, non-white's share of the MSA had a large and positive effect on hires involving non-whites for both male and female hiring agents. Relative to the organizational practices central to the theoretical focus in this analysis, labor source effects on hires involving non-whites are large. These controls are partially capturing unmeasured supply-side characteristics that influence the most recent hire's race, such as applicant skill and social networks (see also Stoll et al., 2004, p. 274).

5. Summary and discussion

By way of summary, I return to several key hypotheses posed earlier. To guide the reader through the hypothesized effects and findings, Table 3 presents the predictions and empirical support for the six hypotheses.

Overall, formal organizational practices do not automatically open job opportunities to out-group applicants. Support for the first hypothesis was limited and the effects of formal practices varied, in part, across hiring agent sex. Formal recruitment practices, both those that relied on outside referral sources (e.g., private hiring agencies) and less formal methods (e.g., posting a help-wanted sign),

[12] Because applicant race composition may be affected by a hiring agent's recruitment practices, I estimated models without a measure of applicant race composition to ensure I do not under-estimate the effects of hiring agent's recruitment techniques on out-group hires. The results from a model excluding applicant race composition are not substantively different than the models presented here.

Table 3
Summary of hypothesized and observed effects of predictor variables on out-group hires

	Hypothesized effect	Observed effect		
		Cross race–sex	Cross-race only	Cross-sex only
H1: Formal recruitment practices will increase the odds a hiring agent makes an out-group hire				
Help-wanted sign	+	+	ns	ns
Newspaper advertisement	+	ns	ns	**ns (M), −(F)**
State employment service referrals	+	ns	**ns (M), + (F)**	ns
Private service/hire agent referrals	+	ns	ns	ns
Community agency referrals	+	+	+	ns
School referrals	+	**−(M), ns (F)**	**−(M), ns (F)**	**−(M), ns (F)**
Union referrals	+	ns	ns	ns
AA used in recruitment	+	ns	ns	ns
H2a,b: Informal recruitment practices will decrease the odds a hiring agent makes an out-group hire. Should have a stronger negative effect on cross-race than cross-sex hires				
Employee referrals	−, A	ns	ns	**ns (M), −(F)**
Friend/acquaintance referrals	−, A	ns	ns	+
H3a,b: Emphasis on subjective skills will decrease the odds a hiring agent makes an out-group hire. Should have a stronger negative effect on cross-race than cross-sex hires				
Emphasize "soft" skills	−, A	ns	**+ (M), ns (F)**	**+ (M), ns (F)**
Emphasize community skills	−, A	−	ns	ns

H4: The more formal workplaces' operating procedures, the greater the odds a hiring agent makes an out-group hire				
Franchise	+	ns	**ns (M), + (F)**	ns
(log) Establishment size	+	ns	ns	ns
Prop. establishment in industry w/federal contracts	+	ns	**− (M), + (F)**	ns
Establishment unionization rate	?	**ns (M),+ (F)**	**ns (M), + (F)**	ns
H5a,b: The greater the job's skill requirements and starting wage, the lower the odds a hiring agent makes an out-group hire. Both should have a stronger negative effect on cross-race than cross-sex hires				
Job skill requirements	−, A	−	**+ (M), − (F)**	**+ (M), − (F)**
Job starting hourly wage	−, A	−	**− (M), ns (F)**	**− (M), + (F)**
H6: The greater non-white's share of the applicant pool, the greater the odds a hiring agent makes a cross-race or cross race–sex hire. Effects conditional upon hiring agent's use of employee referrals for recruitment				
Non-white's share of applicant pool	Will depend on use of employee referrals, B	+	+	ns
Non-white's share of workforce	Will depend on use of employee referrals, B	**+ (M), depends on use of employee referrals (F)**	**+ (M), depends on use of employee referrals (F)**	ns
Non-white's share of MSA	Will depend on use of employee referrals, B	+	+	ns

Key: +, positive effect; −, negative effect; ?, no direction hypothesized; ns, not significant; A, predicted effect more negative for cross-race hires; B, no predicted effect on cross-sex hires; C, no predicted effect on cross-race hires. Bold letter denotes coefficient's effect significantly different for female and male hiring agents ($p < .10$); (M) denotes effect for male hiring agents; (F) denotes effect for female hiring agents.

were not consistently related to out-group hiring. One reason these formal organizational practices did not have consistently positive effects on out-group hiring may stem from the fact that hiring agents who engage in formal practices to recruit and hire applicants also rely on informal staffing practices to recruit and screen workers (Moss and Tilly, 2001b, pp. 623–633; Reskin and McBrier, 2000, p. 223). The analyses I present indicate whether a hiring agent used a particular organizational practice, not if he or she *only* used certain practices to recruit or screen applicants. It is possible that those in charge of hiring rely on both formal and informal organizational practices. In fact, among hiring agents who obtained referrals from schools, 46% of female agents and 40% of male agents also relied on friends and acquaintances for referrals; among those who placed newspaper advertisements to recruit workers, just over one-third also relied on friends and acquaintances for referrals.

Second, for formal practices to limit the salience of an applicant's race at the hiring stage, they must be part of the company culture, supported by management, and enforced with adequate monetary resources (Edelman and Petterson, 1999, p. 131). As Perry et al. (1994, pp. 808–811) also explained, the mere presence of formalized hiring procedures cannot ensure hiring agents follow them. Without a powerful personnel function to sanction non-complying agents and reward those that comply, a hiring agent may be inclined to ask a friend, acquaintance, or current employee to refer a potential worker. This practice takes less time, organization, and money than filing paperwork with an employment agency or performing a formal search and such referrals might provide information that an employer cannot legally ask an applicant (e.g., whether an applicant is married or has children) or information about an applicant's personal qualities not easily assessed with formal screens (e.g., if the applicant is committed to work or gets along with others) (Elliot, 2001, pp. 403; Marsden and Gorman, 2001, pp. 469). This may be especially true for positions subject to above average attrition or relatively low skill and training requirements, such as the low-level jobs that are the focus of the present analysis (Mayhew, 1968, p. 110).

Third, it is possible that the formal staffing practices I can measure are not equally efficacious in their effects on hiring outcomes. To begin, job searches conducted with a candidate already in mind can reduce the effectiveness of formal procedures at blocking employer discretion (Bielby, 2000, p. 125). Although obtaining referrals from employment agencies is a formal recruitment mechanism, audit studies have found evidence that some employment agencies take note of black applicant's race on their files and steer blacks from certain jobs (Merritt and Lee, 2003). The placement of job advertisements in a newspaper is a formal search mechanism but it can, intentionally or not, exclude applicants of one group. An example pertaining to gender and hiring illustrates this point. Petersen and Togstad (unpublished manuscript) explained that when a Norwegian company placed an advertisement seeking someone with "effective managing and optimal operation," their applicant pool was only 7% female. When the company reran the advertisement excluding the words "effective" and "optimal," the resulting applicant pool was 50% female. In both case, the effects of a formal staffing procedure thought to provide equal opportunity to all

applicants was not sex or race neutral. The racial composition of applicants, the local setting, and current workforce, it turns out, are the most robust predictors of hires involving non-white applicants.

Hiring agents' reliance on employee referrals reduced the odds a female agent hired a male applicant, a finding that corroborates earlier research findings that women are often not a part of men's informal coworker ties (Brass, 1985, p. 339). For male and female hiring agents, reliance on friends or acquaintances that can provide extra information about an applicant increased the odds of a cross-sex hire. Finally, the effect of starting hourly wages on out-group hires differed across hiring agent sex in such a manner to suggest that white men top hiring agents' labor queues.

6. Conclusions

Hiring is a multi-step process involving the recruitment of applicants from the labor pool and the screening of applicants to identify the most suitable person for the job. During the recruitment and screening process, if a hiring agent has the discretion to act on biased preferences or discriminatory beliefs, he or she may deliberately *or* unconsciously use applicants' race or sex as a determining factor for whom to hire. Explanations of race–sex hiring discrimination that identify the social and cognitive processes underlying hiring decisions only partly characterize the hiring process. Because these social and cognitive processes shape the practices that hiring agents engage in, organizational practices are the proximate causes of hiring outcomes. Excluding them from study ignores an important part of the hiring process. To that end, the present analyses focused on organizational practices and, to a lesser extent, workplace formality and job characteristics to explain out-group hiring.

By categorizing hires into one of four types based on a hiring agent's and applicant's race *and* sex, analyses revealed that the process of linking applicants to jobs is different when the applicant's race does not match that of the hiring agent versus when his or her sex does not match the hiring agent's. Moreover, by considering the hiring process separately for female and male hiring agents, I established that the hiring process follows a gendered pattern consistent with queuing theory (e.g., Reskin and Roos, 1990) and gendered network theory (e.g., Smith-Lovin and McPherson, 1993).

Taken together, these findings are important because they demonstrate that the effectiveness of organizational practices for opening job opportunities to out-group members will vary depending on *who* comprises the out-group and, at times, whether the person in charge of hiring is male or female. In fact, the inconsistency in effect of organizational practices across different types of applicant out-groups is a useful point of departure for future research on the hiring process. First, results imply that formal organizational practices can limit discretionary effects, as was the case when female hiring agents obtained referrals from community agencies or state employment services, but they also have their own limiting effects, as was

the case when male hiring agents used school referrals. Second, these findings point to the importance of treating race and sex inequality in hiring outcomes as having overlapping but different causes (e.g., Elliot and Smith, 2001, p. 366). A researcher who did not account for the race *and* sex of job applicants would have mistakenly concluded that some formal organizational practices benefit *all* out-group applicants. Third, the findings presented here suggest that researchers should concentrate on collecting data that contain supply-side characteristics of applicants, organizational practices used in the hiring process, workplace characteristics, and demographic features of the labor supply. All four—applicant features, organizational practices, workplace characteristics, and the labor supply—have a combined influence on hiring outcomes. Research on the hiring process in general and specifically *how* organizational practices shape hiring outcomes for members of various race–sex groups and for female and male agents must remain a central focus of future empirical investigations.

Acknowledgments

The author thank Paula England, Roberto M. Fernandez, Monica Kirkpatrick Johnson, Barbara F. Reskin, Amy Wharton, and the anonymous reviewers for their feedback on earlier versions of this research. I also thank Bliss Cartwright at the Equal Employment Opportunity Commission's Office of Research for supplying special tabulations.

Appendix A. Predictor variable summary statistics

	Mean (standard deviation)		Range
	Male hiring agent	Female hiring agent	
Formal recruitment practices			
Proportion of hiring agents who…			
Posted help-wanted signs	0.33*** (0.47)	0.23 (0.42)	0,1
Placed newspaper advertisements	0.49** (0.49)	0.46 (0.49)	0,1
Used state employment service referrals	0.39*** (0.49)	0.31 (0.46)	0,1
Used private employment service/hire agent referrals	0.19 (0.39)	0.19 (0.39)	0,1
Obtained referrals from comm. agency	0.27*** (0.44)	0.21 (0.41)	0,1
Obtained referrals from schools	0.36*** (0.48)	0.29 (0.46)	0,1
Obtained referrals from unions	0.05*** (0.22)	0.08 (0.27)	0,1
Used AA during recruitment	0.38*** (0.49)	0.56 (0.50)	0,1

Appendix A (*continued*)

	Mean (standard deviation)		Range
	Male hiring agent	Female hiring agent	
Informal recruitment practices			
Proportion of hiring agents who…			
Accepted current employee referrals	0.82 (0.39)	0.82 (0.39)	0,1
Accepted friends/acquaintance referrals	0.31** (0.46)	0.34 (0.47)	0,1
Subjective skill screens			
Emphasize "soft skill" scale ($\alpha = 0.58$)	0.76*** (0.22)	0.73 (0.23)	0–1
Emphasize communication skill scale ($\alpha = 0.70$)	0.91** (0.23)	0.89 (0.25)	0–1
Workplace formality			
Prop. franchised	0.07 (0.26)	0.08 (0.26)	0,1
(log) Establishment size	4.31*** (1.93)	3.83 (1.92)	0–12.21
Prop. establishment in industry w/federal contracts	0.56*** (0.22)	0.60 (0.21)	0–1
Prop. workers unionized	0.14*** (0.31)	0.16 (0.34)	0–1
Job characteristics			
Job skill requirement scale ($\alpha = 0.72$)	16.96*** (4.92)	16.37 (5.22)	6–24
Job starting wage ($)	8.48† (3.56)	8.61 (3.71)	4.25–30.29
Racial composition of the labor source			
Proportion of non-white…			
Applicants	0.46*** (0.42)	0.41 (0.40)	0–1
Non-professional workforce	0.33** (0.33)	0.31 (0.32)	0–1
MSA residents	0.31 (0.17)	0.31 (0.16)	0–1
	$N = 895$	$N = 1081$	

Source. Multi-City Telephone Employer Survey; Mean differences between male and female hiring agents significant at: *$p < .05$, **$p < .01$, ***$p < .001$ level.

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