Institute for Research on Poverty
Discussion Paper no. 1236-01

Why Are Black Employers More Likely than White Employers to Hire Blacks?

Michael A. Stoll
School of Public Policy and Social Research
UCLA
E-mail: mstoll@ucla.edu

Steven Raphael
Goldman School of Public Policy
University of California, Berkeley

Harry J. Holzer
Georgetown University
and
The Urban Institute

August 2001

The authors thank Arleen Leibowitz, Jeff Grogger, Rob Mare, and seminar participants at the California Population Studies Center for helpful comments on previous drafts of this paper.

Abstract

A consistent observation is that black employers tend to hire blacks at greater rates than do their white counterparts. This paper examines the reasons for this pattern using data from the 1992–1994 Multi-City Employer Survey, which is a representative sample of firms in Atlanta, Boston, Detroit, and Los Angeles. Using standard regression techniques and decomposition analysis, we find that black employers are more likely to hire blacks because they receive applications from blacks, and hire them out of the black applicant pool, at greater rates than do white employers. Thus, to the extent that there is concern over the persistent unemployment difficulties of blacks, having more blacks in positions with hiring authority within firms would help to alleviate this problem.

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INTRODUCTION

A consistent empirical observation is that the employment of blacks is fairly uneven across firms. For instance, several studies show that blacks account for a greater proportion of employment in central city firms than in suburban firms (Stoll, Holzer, and Ihlanfeldt., 2000; Holzer and Ihlanfeldt, 1996; Raphael, 1998). Similarly, recent research on firm size and black employment demonstrates that smaller firms are relatively less likely to employ blacks (Holzer, 1998a; Chay, 1995). In this paper, we document an empirical observation that has received much less attention: Firms where blacks are in charge of hiring (or black employers) are considerably more likely to employ blacks than are firms where whites are in charge of hiring (or white employers).

This empirical regularity has surfaced in several recent studies. Raphael, Stoll, and Holzer (2000) show that suburban firms with black hiring agents are more likely to hire blacks than are suburban or central city firms with white hiring agents. Bates (1993, 1994), analyzing a large 1987 survey of small businesses from 28 metropolitan areas, shows that the black share of employment at black-owned firms is high in both predominantly minority and nonminority areas and higher than that in white-owned firms. Similarly, in a descriptive case study of Detroit firms in the auto supply industry, Turner (1997) demonstrates that black-owned firms hire a greater percentage of black applicants than do otherwise similar white-owned firms.

We explore this empirical regularity by analyzing the individual steps of the hiring process and the role of the race of the hiring agent. Specifically, we assess the degree to which differences in the race of the hiring agent correspond to differences in the racial composition of establishment applicant pools. Furthermore, we investigate the degree to which variation in black application rates across establishments can be attributed to differences in observable characteristics such as an establishment's physical proximity to black residential areas and access to public transit. Residual differences in black application

rates between black firms and white firms provide upper-bound estimates of the impact that black hiring agents have on black application rates through such avenues as targeted recruiting and social connections.

Next, we explore the impact of the race of the hiring agent on the likelihood that the most recent hire at the establishment is black. To the extent that black hiring agents generate higher black application rates, there will be a positive correlation between the presence of a black hiring agent and the likelihood of hiring black workers. We assess whether the race of the hiring agent has an impact on outcomes above and beyond this indirect effect operating through application rates. Moreover, we assess whether, and use decomposition analysis to estimate how much, other observable establishment characteristics, such as size, location, or recruiting and screening methods, partially explain this empirical pattern.

We find that establishments where blacks are in charge of hiring are considerably more likely to employ blacks even after controlling for the proportion of applications that are submitted by blacks, establishment spatial location within the metropolitan area, and a large set of observable establishment characteristics. In addition, we find that black application rates at firms where blacks are in charge of hiring are significantly greater than those for white firms, even after accounting for spatial location and other observable covariates.

EMPLOYER'S RACE AND BLACKS' EMPLOYMENT AT THE FIRM

There are several avenues by which the race of the hiring agent may directly impact the race of recent hires, holding constant other establishment-level determinants of hiring outcomes. For example, hiring agents may recruit new employees through social networks that are either external or internal to the firm. Access to these networks will surely depend on the racial composition of the incumbent workforce and the staff in charge of hiring. In addition, the race of the hiring agent is likely to determine the racial

preferences, if any, shown by an establishment in hiring outcomes. Hence, black hiring agents may be less likely than white agents to discriminate against (or more likely to discriminate in favor of) blacks.[1]

Such factors will influence the distribution of black applications across establishments. First, informal and formal recruiting targeted at black communities will generate relatively large numbers of black applications. Furthermore, black applicants may take into account their a priori perceptions concerning the likelihood of being treated fairly in the application process and therefore apply to firms where they may face less discrimination (Holzer, 2000).

The impact of black hiring agents on racial hiring outcomes will surely be determined in part by their level of authority within the establishment. For example, black firm owners will have more latitude in designing recruiting strategies and making hiring decisions than black agents who are employed as personnel officers in firms. Similarly, black agents in black-owned firms may face different constraints in hiring than black agents in white-owned (or predominantly white) firms. The latter group may face pressure to behave like whites, or, at minimum, to hire in a way that is consistent with whites' preferences. Indeed, in white-owned firms, blacks may be selected into hiring positions only if they demonstrate behavior that is "nonthreatening" or consistent with firms' racial preferences.

The ability of black employers to hire blacks may also be mitigated by the skill requirements of jobs or by the frequency with which these firms hire less-skilled workers. Firms with high skill demands, low vacancy and turnover rates, or that generally hire few workers relative to the size of their workforce are associated with lower black employment (Holzer, 1998b). In part, this is due to blacks' lower levels of skills and/or discriminatory treatment by employers, factors that place them lower in the hiring queue. To the extent that black hiring agents are employed in firms with these characteristics, there will be fewer opportunities to exert influence.

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[1]There is some research that measures employer discrimination in hiring against blacks (see Fix and Struyk, 1994), but no studies of which we are aware directly test the proposition that black employers are less discriminatory against blacks than are white employers. However, Raphael, Stoll, and Holzer (2000) report some indirect evidence on the hiring of blacks by white and black employers that is highly suggestive of this claim.

To be sure, observed differences in the likelihood of hiring black applicants between white and black firms may be attributable to mean differences in basic firm characteristics, such as geographic location, size, racial composition of customers, and use of affirmative action in the hiring process. The literature on spatial mismatch indicates that racial residential segregation combined with search and commuting costs and imperfect information limits the geographic distance workers are willing and/or able to travel, thus ensuring that blacks and whites work in different parts of the metropolitan area (Stoll, 1999; Stoll and Raphael, 2000; Holzer and Ihlanfeldt, 1996). Hence, firms located nearer to black communities receive a relatively larger number of applications from blacks and will be more likely to hire black workers as a result. By similar reasoning, such establishments may also be more likely to have black employees in charge of hiring, creating a correlation between the race of the hiring agent and the race of recent hires.

Similarly, differences in establishment size distributions may contribute to the observed differences in hiring outcomes between black and white firms. Blacks are more likely to work in larger firms than in smaller ones. This pattern is often attributed to the fact that larger firms are more concentrated in central cities, are more likely to have affirmative action policies, are more likely to face perceived or real pressure from government Equal Employment Opportunity (EEO) regulations, and are more likely to use hiring practices favorable to the employment of blacks (Holzer, 1998a; Chay, 1995; Carrington, McCue, and Pierce, 1995). These same factors may also lead to the relatively greater presence of black hiring agents at larger firms.

Finally, the same arguments can be made about the firm's use of affirmative action or about its customer pool. Whether the firm engages in affirmative action in recruitment or hiring (either because it is a federal contractor or has voluntarily chosen to do so) is likely to influence the overall hiring practices of the firm and more specifically the racial composition of applicants to and employees at the firm (Holzer and Neumark, 2000). The firms' customer pool is also likely to influence the racial composition

of applicants and hiring at the firm, since customer preferences will affect employer behavior in recruiting and hiring applicants (Becker, 1971; Holzer and Ihlanfeldt, 1998; Stoll, Holzer, and Ihlanfeldt, 2000).

DESCRIPTION OF THE DATA AND THE EMPIRICAL STRATEGY

We examine these issues using data from employer surveys collected through the Multi-City Study of Urban Inequality (MCSUI). The employer survey was carried out between June 1992 and May 1994 in the Atlanta, Boston, Detroit, and Los Angeles metropolitan areas and was administered to over 3,000 firms. The sample of firms comes from two sources: a household survey conducted concurrently in the four metropolitan areas (providing approximately 30 percent of the firms) and a sample generated by Survey Sampling Incorporated (SSI). The response rate for firms that passed the initial screening is 67 percent and is comparable to other recent employer surveys (Kling, 1995).

The SSI sample of the MCSUI survey is randomly stratified where the initial lists are stratified by establishment size. In addition, firms are sampled according to the proportion of metropolitan area employment accounted for by their respective size categories. Hence, the SSI sample is representative of the set of firms faced by a job seeker in any of the four metropolitan areas. Sample weights are used in all tabulations and model estimations to account for the nonrepresentative portion of the sample from the household surveys. Holzer (1996) provides detailed comparisons of response rates by industry, location, and establishment size and finds no substantial differences in response rates across firms. He also provides evidence that the distribution of firms in the MCSUI sample within areas across industry and firm size are comparable to those found in the U.S. Census Bureau's *County Business Patterns***.** In this analysis, the sample is restricted to records with complete information. Furthermore, we focus on workers in noncollege jobs since the vast majority of jobs do not require a college education and since noncollege workers are the group about which we are most concerned.

Telephone surveys were targeted at the individuals in charge of hiring at the establishments, and information on their racial characteristics were collected. We identify these individuals as employers. In

addition, extensive information was also recorded concerning background firm characteristics (e.g., establishment size, industry, presence of collective bargaining, distance from public transit stops), hiring and screening behavior, and skill demands and requirements of jobs. Survey questions also focused on several employment outcomes, including the characteristics of the last job into which a worker was hired and of the last worker hired into that job. In addition, we attached to these surveyed establishments 1990 U.S. census data measuring the firms' weighted distance (in miles) to various populations by race to control for firms' location at more geographic detail than the central city/suburban dichotomy.[2]

In the analysis, we use a number of firm-level outcome measures to examine differences in hiring outcomes between establishments with black and white hiring agents, including the proportion of applications submitted to the firm that are from blacks, whether the last-hired noncollege worker was black, and the percentage of noncollege employees who are black. The percentage of applicants who are black provides information on the supply of black workers to the firm. The second measure provides a gauge of the hiring decisions most likely to be made by the current hiring agent, and the final measure provides an overall description of the average hiring policies of the firm.

Each of the outcomes used in this analysis raises various concerns over the extent to which we can attribute the hiring of black workers to the person in charge of hiring. A major concern is that the race of the hiring agent may in itself be endogenous to hiring practices at the firm—i.e., unobservables causing blacks to be promoted to positions of authority may be correlated with those leading to high black hiring, employment, and application rates at the firm. For example, firms' affirmative action policies are likely to lead both to the employment of blacks and to the promotion of blacks into hiring positions at the firm. Similarly, firms with a predominantly black applicant pool may find that employing black hiring agents minimizes recruitment and screening costs. These factors are more of a concern when we examine the

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[2]More precisely, these distances are weighted averages of the distances (in miles) from the census tracts in which the establishments are located to every other census tract in the metropolitan area, weighted by the percentages of each population group (e.g., blacks) located in those other census tracts, according to the 1990 Census of Population STF3a files.

influence of the race of the hiring agent on the extent to which the noncollege employees at or applicants to the firm are black, because these outcome measures are more likely to indicate the firm's steady-state recruiting or hiring practices and because any one person in charge of hiring at any one point in time is not likely to significantly influence these. As a result, our analysis includes a number of control variables that are likely to minimize the effect of firms' hiring preferences, such as whether the firm uses affirmative action in hiring or recruiting.

These factors may be less of a concern when interpreting the results using the race of the last-hired worker. The MCSUI employer survey design ensured that the sample included those firms that had recently hired. Thus, the person in charge of hiring as identified in the survey data is likely to directly influence the choice of the last person hired. As a result, we have greater confidence that the results using the variable measuring the last worker hired who is black can be interpreted as direct effects of the race of the hiring agent on hiring black workers.[3]

Our empirical strategy is as follows. First, we examine mean differences in hiring outcomes between establishments with black and white hiring agents. Next, we estimate a series of regression equations to explain the baseline differences in recruiting and hiring of blacks between these employers. The final specifications of these equations are then used to develop a series of decomposition exercises aimed at estimating how much of the differences in recruiting and hiring of black workers between black and white employers can be attributed to various firm-level factors examined in this analysis.

[3]Although the race of the hiring agent at the firm is not likely to be endogenous with respect to the race of the last worker hired there, some correlation between the former variable and the error term may exist due to unobserved characteristics of the firm that help to determine both of these outcomes.

DESCRIPTIVE STATISTICS AND UNADJUSTED DIFFERENCES IN HIRING OUTCOMES

Table 1 shows the means of the firm-level recruiting and hiring outcomes for black workers in all establishments as well as those where the hiring agent is white, black, or "other minority."[4] The proportions of employers in these three categories are 0.82, 0.09, and 0.09, respectively. These measures are shown for the pooled sample of metropolitan areas and separately for each MSA. The results indicate that firms with white hiring agents receive relatively fewer applications from blacks. This difference is particularly stark when one compares the percentages of firms that receive no applications from black job seekers—nearly 19 percent of white firms versus 3 percent of black firms.[5]

The results also indicate a relatively larger proportion of the firms' noncollege workforce is black at establishments with black hiring agents. Moreover, the last-hired worker is much more likely to be black in such establishments. These patterns are consistent across the metropolitan areas included in our analysis, but are much more stark in Boston, Detroit, and Los Angeles than in Atlanta. For example, the difference in the percentage of noncollege employees who are black between white and black employers is about 29 percentage points in Atlanta, while it is between 32 and 51 percentage points in the other metropolitan areas. Given that the mean on this variable is just 17 percent across the four metropolitan areas, the observed differences in hiring outcomes between white and black employers are indeed very large.

For the sample overall and for each metropolitan area, the table also presents the ratio of the proportion of firms whose most recent hire was black to the average black application rate for the respective cells created in the table. This ratio reflects the demand for black applicants conditional on where they apply, or, specifically, the rate at which firms hire blacks out of the available black applicant

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[4]The "other minority" hiring agent category includes persons of Hispanic, Asian, Native American, and other racial background. The majority of these are persons of Hispanic background.

[5]We examined the mean percentage of applicants who are black for firms with nonzero values for this measure and found similar differences between firms with white and black employers to those reported in Table 1 with zero values included.

TABLE 1
Black Employment and Applicants by Race of Employer – Noncollege Jobs

	Race of Employer			
	White	Black	Other Minority	All
Pooled sample of metro areas				
Percent applicants – black	0.257 (0.294)	0.522 (0.308)	0.200 (0.240)	0.268 (0.297)
Probability last hire is black	0.149	0.489	0.080	0.175
Percent employees – black	0.153 (0.229)	0.517 (0.326)	0.118 (0.186)	0.174 (0.251)
Ratio last hire black to black applicants	0.580	0.937	0.400	0.653
Atlanta				
Percent applicants – black	0.381 (0.321)	0.580 (0.292)	0.298 (0.246)	0.395 (0.321)
Probability last hire is black	0.254	0.534	0.252	0.280
Percent employees – black	0.265 (0.270)	0.558 (0.330)	0.292 (0.317)	0.295 (0.291)
Ratio last hire black to black applicants	0.667	0.921	0.846	0.709
Boston				
Percent applicants – black	0.159 (0.237)	0.320 (0.305)	0.297 (0.312)	0.165 (0.241)
Probability last hire is black	0.073	0.414	0.036	0.081
Percent employees – black	0.094 (0.191)	0.486 (0.319)	0.102 (0.139)	0.103 (0.202)
Ratio last hire black to black applicants	0.459	1.294	0.121	0.491
Detroit				
Percent applicants – black	0.318 (0.327)	0.730 (0.236)	0.282 (0.359)	0.340 (0.336)
Probability last hire is black	0.210	0.752	0.102	0.240
Percent employees – black	0.154 (0.238)	0.663 (0.334)	0.115 (0.166)	0.183 (0.271)
Ratio last hire black to black applicants	0.660	1.030	0.362	0.706
Los Angeles				
Percent applicants – black	0.190 (0.228)	0.414 (0.287)	0.177 (0.223)	0.202 (0.238)
Probability last hire is black	0.062	0.331	0.058	0.085
Percent employees – black	0.078 (0.128)	0.400 (0.287)	0.094 (0.155)	0.107 (0.172)
Ratio last hire black to black applicants	0.326	0.800	0.328	0.421

Notes: Standard errors are in parentheses. All results are sample-weighted.

pool.[6] The patterns consistently indicate that firms with black hiring agents are more likely to hire black workers out of the available applicant pool than are firms with white or other minority hiring agents. Moreover, this conditional hiring rate is well below 1 for firms with white or other minority agents, indicating a relative disinclination to hire black applicants.[7] Of course, black application rates are likely to be endogenously determined by establishment recruiting practices, which in turn are likely to reflect employers' preferences. Endogenous application rates would bias this conditional hiring rate toward 1. Hence, mean differences in this ratio are likely to understate the true racial differences in the propensity to hire blacks out of the available applicant pool across establishments.

Another concern is that we only measure the relative quantity and not the quality of black applicants across firms. This may affect the interpretation of the conditional hiring rates of blacks between white and black employers. The obvious case is that the higher conditional hiring rate of blacks by black employers may reflect the self-selection of higher-skilled black applicants to these employers. However, this concern is tempered by the fact that higher-skilled black applicants are more likely to live in suburban areas than central cities (Holzer, 2000), while black employers are more likely employed in central city firms that also have stricter hiring requirements (see Table 3). The fact that larger firms also have higher skill requirements, despite their relatively greater tendency to hire blacks, tends to mitigate this concern as well.

A possible explanation for the differences in employment of and applications from blacks between white and black employers might be that the level of the hiring agent at the firm influences these patterns. For example, black employers who are owners may face fewer constraints in hiring blacks than

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[6]We also constructed similar ratios for the percentage of noncollege employees at the firm who are black and the black application rate and found similar results to those we report here. If we make the strong assumption that the firm's hiring practices are in a steady state, the ratio of the black share of noncollege employment to black application rates reflects the firm's propensity to both hire and retain black employees. We show the ratio of new hires to applicants because the applicant data is measured with more precision to the last-filled job.

[7]Alternatively, establishments in which this ratio is greater than 1 have a relatively stronger inclination to hire blacks out of the applicant pool.

do black employers in lesser positions of hiring authority at other (perhaps white) firms. Table 2 shows black applicants and employment at the firm by the level of the hiring agent between black and white employers. The results show patterns that are not supportive of this idea. Black employers in any position of hiring authority are much more likely than their respective white counterparts to employ and receive applications from blacks. Moreover, these differences between black and white employers in hiring and receiving applications from blacks show few clear patterns across the levels of hiring agents.[8] Surprisingly, these differences in outcome measures (except for percentage of employees who are black) are greatest between white and black employers for those in other personnel positions.[9]

ESTIMATING EQUATIONS

The preceding analysis, which clearly demonstrates very large differences in the recruiting and hiring of black workers among firms with white, black, or other minority employers, is consistent with previous research. Less clear are the reasons why black employers are more likely than their white or other minority counterparts to hire black workers. To examine this question, we estimate a series of equations of the form:

$$\%\,Applicants\ Black_k = R_k\beta_{11} + \beta'_{12}\,X_k + \varepsilon_{1k} \tag{1}$$

$$\Pr_k(Last\ Hire\ Black) = F_2(R_k\beta_{21} + \beta'_{22}\,X_k + \beta'_{23}\,D_{jk} + \varepsilon_{2k}) \tag{2}$$

$$\%\,Noncollege\ Employees\ Black_k = R_k\beta_{31} + \beta'_{32}\,X_k + \varepsilon_{3k} \tag{3}$$

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[8]Regression equations of these outcome measures in which the race of the employer is interacted with the level of hiring agent while controlling for the host of firm level factors described below reproduced the same inconsistent patterns as those shown by the raw means in Table 2.

[9]One possible explanation for this observed pattern is that other personnel officers may be more likely than the other hiring agents to be in charge of hiring for positions that require fewer credentials or skills, which may favor blacks in hiring. However, further analysis does not confirm this hypothesis. We find that for noncollege jobs, the last-hired worker is more likely to be a high school graduate in jobs filled by other personnel officers than by other hiring agents (e.g., owners, etc.). Moreover, the jobs filled by other personnel officers are much more likely to require high school diplomas, recent and specific work experience, and more job tasks on average.

TABLE 2
Black Employment and Applicants by Level of Hiring Agent and Race of Employer – Noncollege Jobs

	Race of Employer			
	White	Black	Other Minority	All
Pooled sample of metro areas				
Owner				
Percent applicants – black	0.172	0.543	0.103	0.192
Probability last hire is black	0.103	0.397	0.057	0.125
Percent employees – black	0.080	0.710	0.076	0.113
Ratio last hire black to black applicants	0.599	0.731	0.553	0.651
Manager/supervisor				
Percent applicants – black	0.279	0.500	0.149	0.280
Probability last hire is black	0.164	0.394	0.029	0.166
Percent employees – black	0.159	0.503	0.105	0.174
Ratio last hire black to black applicants	0.588	0.788	0.195	0.593
Personnel officer				
Percent applicants – black	0.320	0.553	0.321	0.343
Probability last hire is black	0.200	0.474	0.182	0.224
Percent employees – black	0.190	0.479	0.177	0.217
Ratio last hire black to black applicants	0.625	0.857	0.567	0.653
Other personnel				
Percent applicants – black	0.208	0.629	0.152	0.238
Probability last hire is black	0.119	0.812	0.083	0.174
Percent employees – black	0.154	0.628	0.066	0.187
Ratio last hire black to black applicants	0.572	1.291	0.546	0.731

Notes: Standard errors are in parentheses. All results are sample-weighted.

where R is the race of the employer in firm *k*, X is a variety of independent establishment-level variables for firm *k,* and D is a variety of variables for job *j* in firm *k*. Equations 1 and 3 are estimated with OLS, while equation 2 is estimated using the probit functional form, $F_1(z_1) = \Phi(\sum_{i=1}^{i} \beta_i x_i)$.[10]

Differences in black application and employment rates at establishments between firms with white and black employers, as well as overall black employment at any establishment, should be largely accounted for by a variety of the firm's underlying characteristics and employer behaviors, such as

- basic characteristics of firms;
- black application rates (where appropriate);
- employer perceptions and preferences regarding different groups;
- overall hiring activity and labor market tightness; and
- skill needs and requirements in, and recruiting methods used to fill, particular jobs.

To reflect all of these factors, we use a number of establishment characteristics as independent variables in the analysis.[11] Basic firm characteristics that are likely to affect black application rates and employment include its size, industry, collective bargaining, and nonprofit status. A particularly important establishment characteristic will be its location, specifically its distance from public transit stops and black populations and its location in the central city or suburbs.[12] We also control for the level of the

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[10]We also estimated equation 3 with tobit, on the assumption that there might be a censored latent variable in the noncollege employees who are black measure (i.e., zeros) that would indicate that negative demand could exist in the form of layoffs or discharges of those noncollege blacks previously hired. However, the results of these models were nearly identical to those shown here using OLS.

[11]In addition to these, we also experimented with variables that indicated whether employers thought that inner-city workers were weaker job candidates, and for equations using the last-hired worker as the dependent variable, whether the job required "soft skills," such as speech, dress, or appearance. Recent research indicates that soft skill requirements prevent blacks from attaining employment (Moss and Tilly, 1996). The inclusion of these variables did not change the black employer coefficient, though some were significant predictors of the dependent variables.

[12]The locations of firms are based on their mailing addresses. The primary central city refers to the cities of Atlanta, Boston, Detroit, and Los Angeles. In Los Angeles, the San Fernando Valley is excluded from the central city, while East Los Angeles is included. The other areas include other central cities in each of these four metropolitan areas as well as other municipalities whose residents are at least 30 percent black. See Holzer and Ihlanfeldt (1996) for a more thorough discussion of these location definitions.

hiring agent in the establishment, such as whether the agent is the owner, manager, or personnel department officer.

The percentage of applicants who are black is also likely to affect black employment at the firm since it influences the composition of the pool of workers from which employers hire. However, the black application rate is also very much endogenous to the firm's hiring practices and preferences and ultimately to its hiring record. For example, black employers may signal to potential black applicants that the expected benefits of applying to jobs there is greater as a consequence of perceptions that they are not likely to be discriminated against in hiring. This factor may therefore influence the racial composition of applicants. Moreover, the black application rate is itself highly correlated with factors that affect blacks' employment at the firm, such as its location. Therefore, including the black application rate in equations predicting black employment is likely to overcontrol for factors affecting it, and is likely to wash away many of these effects. Since the black application rate is both influenced by and influences factors relating to black employment at the firm, we treat it as both a dependent and an independent variable in the analysis. Moreover, in equations where black application rate is treated as an independent variable, we specify equations with or without it included, which can be interpreted as lower- and upper-bound estimates, respectively, of the effect of black employer status on black employment, all else equal.

We include certain establishment-wide variables to control for employer preferences for particular minority groups, such as the percentages of blacks in the customer pool and whether or not the firm engages in affirmative action in recruiting or hiring. To proxy overall hiring activity and labor market tightness (i.e., the quantity of labor demanded relative to that supplied) at the establishment level, we use its current job vacancy rate, measured as the percentage of all jobs in the establishment that are vacant and available for immediate occupancy. The vacancy rate should incorporate both the frequency of new hiring, reflecting turnover and net employment growth at the establishment, and the average durations of such efforts, reflecting employers' ability to find acceptable applicants for these jobs. We also include the gross hiring rate, measured as the total number of persons hired in the previous year as a

percentage of the total number of current employees, to capture the overall extent of hiring at the firm. All of these dimensions of hiring should influence the firm's willingness to hire more disadvantaged groups, such as blacks (see, for example, Freeman and Rodgers, 2000).

Overall skill needs and requirements for jobs are also likely to affect black employment at the firm. So too should the recruitment methods and hiring practices used by firms to fill jobs. To capture these skill measures, we include a series of dummy variables indicating whether the last-filled job requires a high school diploma, recent or specific work experience, references, or vocational training. To these, we also include a series of task variables for the last-filled noncollege job that indicate whether customer contact, phone use, reading/writing, math, or computer use is required. We capture firms' recruitment methods through a series of dummy variables that indicate whether the firm used informal referrals, public or private placement agencies, newspaper ads, or help wanted signs/walk-ins to fill the job.[13] Finally, we include a vector of hiring practice dummies that measure whether the firm used pre-employment tests, criminal background checks, personal interviews, or written applications to fill the last vacant noncollege job. The log of the starting wage for the last-filled job is also included to control for unobserved skills and supply-side factors affecting the choice to apply and accept an offer. Indeed, the effect of virtually all of the above variables on an establishment's hiring of low-skill and/or minority workers has been demonstrated in past work.[14]

Since all of the variables that measure the overall skill needs and requirements as well as the hiring practices of firms refer to the last-filled job, these measures are only included in equation 2. However, we also assume that employers interpreted the question of the recruitment methods used to fill jobs as applying to the last-filled job given the sequence of questions in the survey. Thus, we include

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[13]Interactions between black employers and each of the recruitment methods were never significant in equations 1 and 3, indicating that black employers' use of recruitment methods does not produce black applicants or black hires at different rates than it does for white employers.

[14]See, for instance, Holzer (1996, 1998a, 1998b, 2000), Holzer and Ihlanfeldt (1996), and Stoll, Holzer, and Ihlanfeldt, (2000).

these recruitment method indicators in equation 1 as well.[15] We will present a variety of specifications below that use the variables listed above to examine the factors that explain why firms with black employers are more likely to hire black workers than are firms with white or other minority employers. Although unobserved heterogeneity across establishments and jobs is always a concern with regard to cross-sectional estimates, it is hoped that the broad range of the variables described here will limit its effects.

Table 3 provides the means of the firm-level characteristics described above for the pooled sample of metropolitan areas by the race of the employer. As expected, black employers are more likely than white employers to be employed in firms located nearer to black populations, as indicated by the distance measure (in miles) to black populations (relative to whites), which is lower for firms with black employers, and by the location dummies. Nearly 57 percent of firms with black employers are located in primary central city areas, versus 24 percent for firms with white employers.

The location characteristics of firms with black employers largely account for the fact that a larger percentage of these firms than those with white employers are accessible to public transportation stops, since central city firms are more accessible to these stops than are suburban firms (Holzer and Ihlanfeldt, 1996). These transit factors also influence the extent of black applications and employment at establishments since blacks are more reliant than other racial/ethnic groups on public transit to get to work (Raphael and Stoll, 2001; Holzer, Ihlanfeldt, and Sjoquist, 1994). Differences in these location characteristics between firms with white and black employers are also likely to account for the greater percentage of customers who are black at firms with black employers.

Black employers are also more likely than their white counterparts to be employed in service than manufacturing industries and, as expected, in larger than smaller firms. These factors largely account for

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[15]We also made this same assumption with the vector of hiring practice and requirement dummy variables and experimented with including these in equation 1. However, the inclusion of these in this equation was never significant and did not change the estimated coefficients of the effect of the employer's race on the racial composition of applicants, so we did not include them in the specifications shown here.

TABLE 3
Means of Firm-Level Characteristics by Race of Employer

	Race of Employer			
	White	Black	Other Minority	All
Pooled sample of metro areas				
Level of employer				
Owner	0.189	0.139	0.183	0.185
Manager/supervisor	0.491	0.379	0.436	0.478
Personnel department officer	0.207	0.367	0.271	0.224
Other personnel officer	0.111	0.116	0.110	0.112
Firm size				
1–19	0.395	0.288	0.419	0.390
20–49	0.213	0.146	0.149	0.203
50–99	0.129	0.140	0.080	0.125
100–499	0.172	0.279	0.234	0.184
> 500	0.078	0.145	0.074	0.082
Industry				
Agriculture/mining	0.001	0.011	0.000	0.002
Construction	0.023	0.000	0.001	0.019
Manufacturing	0.174	0.036	0.188	0.166
Transport./communications/utilities	0.046	0.119	0.039	0.050
Wholesale trade	0.080	0.001	0.071	0.074
Retail trade	0.187	0.188	0.162	0.185
F.I.R.E.	0.083	0.047	0.031	0.075
Services	0.375	0.556	0.478	0.397
Collective bargaining	0.228	0.323	0.314	0.243
Not-for-profit	0.187	0.385	0.299	0.211

table continues

TABLE 3, continued

	Race of Employer			
	White	Black	Other Minority	All
Location				
Relative distance – black population	0.772 (0.187)	0.655 (0.172)	0.726 (0.141)	0.759 (0.185)
Central city – primary	0.241	0.566	0.440	0.282
Other areas	0.168	0.074	0.158	0.160
Suburbs	0.591	0.361	0.402	0.558
Distance to public transit stop				
0–.25 mile	0.585	0.751	0.769	0.614
.26–1.00 mile	0.141	0.082	0.169	0.139
> 1.00 mile	0.273	0.167	0.063	0.247
Percent customers – black	0.172 (0.191)	0.354 (0.285)	0.140 (0.153)	0.262 (0.294)
Affirmative action	0.489	0.626	0.606	0.509
Vacancy rate	0.036 (0.096)	0.039 (0.121)	0.028 (0.077)	0.036 (0.096)
Gross hire rate	0.410 (2.118)	0.265 (0.436)	0.268 (0.400)	0.387 (1.946)
Recruiting methods				
Help wanted signs/walk-ins	0.708	0.816	0.694	0.714
Informal referrals	0.866	0.915	0.820	0.865
Public placement agencies	0.491	0.759	0.519	0.512
Private placement agencies	0.193	0.248	0.220	0.200
Newspaper ads	0.447	0.410	0.383	0.438
Hiring requirements				
High school diploma	0.694	0.855	0.654	0.701
Recent work experience	0.698	0.729	0.678	0.699
Specific work experience	0.634	0.668	0.645	0.638
References	0.749	0.811	0.783	0.757
Vocational training	0.388	0.459	0.395	0.394
Hiring practices				
Pre-employment tests	0.283	0.384	0.298	0.292
Criminal check	0.285	0.556	0.273	0.302
Personal interview	0.875	0.896	0.806	0.870
Written application	0.781	0.845	0.742	0.782

table continues

TABLE 3, continued

	Race of Employer			
	White	Black	Other Minority	All
Job tasks				
Customer contact	0.727	0.784	0.774	0.736
Phones	0.640	0.698	0.738	0.653
Reading/writing	0.809	0.835	0.816	0.812
Math	0.810	0.705	0.734	0.795
Computer	0.561	0.671	0.567	0.570
Log (starting wages)	2.099 (0.446)	2.117 (0.442)	2.016 (0.406)	2.092 (0.443)
N	1099	121	121	1341

Notes: Standard errors are in parentheses. All results are sample-weighted.

the difference in the use of affirmative action in recruiting and hiring between firms with white and black employers, since larger firms and firms in service industries are more likely than manufacturing and smaller firms to use affirmative action (Holzer and Neumark, 2000; Holzer, 1998a). The difference in the size of firms where black and white employers work also likely accounts for the differences in hiring requirements and practices and job tasks for the last-filled job between these firms. Black employers are employed at firms that have more strict hiring requirements and practices and also more job tasks than firms with white employers. Interestingly, though these factors are associated with lower employment and hiring of blacks at firms generally (Holzer, 1998b), black employers still hire more of these workers than do white employers (see Table 1). Finally, black employers recruit more intensively and use public placement agencies in these efforts at much greater rates than do white employers.

MODEL RESULTS

Table 4 presents results of estimated regression equations in which the dependent variable is the black application rate to the firm for noncollege jobs. The presentation of regression results for all dependent variables used in the analysis highlights the sensitivity of the employer race coefficients to the inclusion of a series of categories of variables, corresponding to those we described above, to the equation. We show only the results of the employer race coefficients since the effects of the other variables have been well documented in previous research. We show results from the final, fully specified equation for each dependent variable analyzed here in Table A.1. The empirical strategy is to first estimate the baseline employer race coefficient with controls for MSA and year of interview only, and then, where appropriate, to systematically add to the equation the basic firm characteristics, black application rate, employer preferences, labor market tightness and overall hiring activity, and job-specific (i.e., skill needs and requirements, etc.) variables. Examination of the change in magnitude of the employer race coefficients after these variables are entered into the equation will help determine whether

TABLE 4
Estimated OLS Effects of Employer Race on Percentage of Applicants Who Are Black for Noncollege Jobs

	(1)	(2)	(3)	(4)	(5)	(6)
Black employer	0.272***	0.191***	0.118***	0.192***	0.189***	0.119***
	(0.032)	(0.031)	(0.029)	(0.031)	(0.031)	(0.029)
Other minority employer	-0.022	-0.051	-0.037	-0.049	-0.047*	-0.033
	(0.030)	(0.028)	(0.026)	(0.028)	(0.028)	(0.025)
Industry, size, collective bargaining, not-for-profit, location, level of hiring agent	No	Yes	Yes	Yes	Yes	Yes
Black customers, affirmative action	No	No	Yes	No	No	Yes
Vacancy and gross hiring rates	No	No	No	Yes	No	Yes
Recruitment methods	No	No	No	No	Yes	Yes
Adjusted R^2	0.158	0.308	0.416	0.309	0.313	0.421

*p < .10, ** p < .05, *** p < .01.
Notes: Standard errors are in parentheses. All results are sample-weighted. Sample size is 1203. Columns 1–6 include controls for MSA (L.A. is the reference category) and year of interview.

and to what extent such factors account for the differences between black and white employers in hiring blacks.

Table 4 presents a series of specifications estimating the effect of employer race on the percentage of applicants who are black for noncollege jobs at the firm. The results indicate that basic firm characteristics and factors affecting employers' preferences explain roughly a third of the black application rate between firms with black and white employers. Moreover, once we include all relevant observed factors in model 6, we can account for about 56 percent of the differences in the black application rate between firms with black and white employers. Still, after accounting for these differences, firms with black employers are significantly more likely than firms with white employers to have a greater proportion of applications come from blacks (i.e., about 12 percentage points).[16]

Table 5 presents a series of probit model specifications of the last-hired worker who is black.[17] Model 1 shows the baseline effect of the race of the employer on hiring blacks, with controls for MSA and year of interview only, and indicates that black employers are statistically more likely than white or other minority employers to hire these workers. The partial derivative of the probit coefficient evaluated at the sample means indicates that black employers raise the hiring of blacks by 21 percentage points. Relative to the mean of the dependent variable in this sample (0.175), this effect is quite large. The results also indicate that other minority employers do not hire blacks at significantly different rates than do white employers, and that this result largely holds across the alternative specifications presented.

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[16]To examine in more detail whether differences in recruitment methods between black and white employers explain differences in the black application rates, we experimented with interactions between the black employer and recruitment method variables. We also included the percentage of noncollege workers who are black variable into the model and interacted these with the recruitment variables, but did not find evidence from any of these inclusions to support this idea.

[17]We also estimated a similar sequence of models for the last-hired worker who is black for all jobs (i.e., jobs that do or do not require a college degree). The results of this exercise are similar to those we report here for noncollege jobs only. Moreover, we find these same results between noncollege and all jobs for the other dependent variables included in the analysis. Results are available from the authors upon request.

TABLE 5
Estimated Probit Effects of Employer Race on Probability That Last Hire Is Black for Noncollege Jobs

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Black employer	0.876***	0.658***	0.488***	0.663***	0.737***	0.550***	0.354*	0.341*
	(0.154)	(0.171)	(0.182)	(0.183)	(0.190)	(0.195)	(0.185)	(0.204)
	[0.205]	[0.127]	[0.090]	[0.126]	[0.119]	[0.094]	[0.063]	[0.060]
Other minority employer	-0.236	-0.415*	-0.357	-0.394	-0.454*	-0.363	-0.395	-0.401
	(0.223)	(0.246)	(0.257)	(0.247)	(0.262)	(0.275)	(0.273)	(0.293)
	[-0.055]	[-0.080]	[-0.066]	[-0.075]	[-0.073]	[-0.056]	[-0.061]	[-0.051]
Industry, size, collective bargaining, not-for-profit, location, level of hiring agent	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Black customers, affirmative action	No	No	Yes	No	No	Yes	No	Yes
Vacancy and gross hiring rates	No	No	No	Yes	No	Yes	No	Yes
Hiring requirements and practices, job tasks, recruitment methods, starting wages	No	No	No	No	Yes	Yes	No	Yes
Black applicants	No	No	No	No	No	No	Yes	Yes
-Log L	-451.4	-390.5	-364.5	-387.8	-354.0	-331.6	-328.1	-295.3

* $p < .10$, ** $p < .05$, *** $p < .01$.

Notes: Standard errors are in parentheses. Partial derivatives (evaluated at the sample means) are in brackets. All results are sample-weighted. Sample size is 1099. Columns 1 – 8 include controls for MSA (L.A. is the reference category) and year of interview.

Model 2 adds to the equation the basic firm characteristics, which are listed in the lower panel of Table 3. The inclusion of these characteristics reduces the estimated probit coefficient on black employers by about 25 percent. In particular, differences in firm size and location between firms with white and black employers account for a large part of this effect, as indicated in the full model specification listed in Table A.1.

Model 3 adds variables measuring employers' perceptions and preferences to the equation in Model 2. Their inclusion in the equation indicates that a moderate portion (about 25 percent) of the estimated effect of black employers on hiring blacks is accounted for by differences in black customers and affirmative action in hiring between firms with black and white employers. In addition, black customers alone explain much of this effect.

In Models 4 and 5 we include vacancy and gross hiring rates and skill, hiring, and recruitment factors that affect the last-hired worker.[18] The inclusion of these does not explain any of the employer race effect on the hiring of blacks. Indeed, the coefficient on black employer increases with their inclusion. This is because black employers are more likely to be employed in firms with characteristics associated with lower black employment than are those with white employers, as we noted previously.

The fully specified equation (without black applicants) is shown in model 6. The host of firm, employer preference, and job-specific characteristics explains about 37 percent of the black employer effect on the last-hired worker who is black, as compared with model 1. Still, even after accounting for these factors, black employers are more likely than white employers to hire blacks, a difference of 9 percentage points. Caution must be exercised in interpreting this as an explicit effect, because there may be unobservables that are correlated with both black employers and black employment at the firm that are excluded from our model.

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[18]We also specified a model for this dependent variable in which we included the percentage of noncollege employees who are black as an independent variable and interacted this with use of informal recruitment methods to test the hypothesis that black employers hire more blacks than do white employers because of their greater, or more effective, use of current black employees as an informal recruitment strategy. This interaction was never significant, however, thus casting doubt on this idea.

Model 7 adds the black application rate to the specification in model 2. Differences in the black application rate between white and black firms explains about half of the estimated effect of black employers on hiring blacks, once the basic firm characteristics are taken into account. As discussed earlier, the inclusion of the black application rate into the last-hired black equation offers a strict test of the effect of race of employer on the hiring of blacks because of concerns over its endogeneity, which will bias downward the estimated effect of black employers. However, even after its inclusion, the coefficient on black employers remains marginally significant at the 10 percent level, though the estimated marginal effect of black employers on hiring blacks is reduced. Finally, the fully specified equation that includes the black application rate explains about 60 percent of the black employer effect on hiring blacks, compared with the base equation in model 1. Again, the black employer effect remains marginally significant and is estimated to raise the hiring of blacks by about 6 percentage points.

Table 6 presents a series of OLS model specifications in which the dependent variable is the percentage of firms' noncollege employees who are black. Although there is concern over whether the person in charge of hiring as indicated in the survey can influence the racial composition of a firm's employees, the patterns of results are similar to those reported in Table 5 for the last-hired worker who is black. The only significant difference is that the effect of black employers on black employment at the firm is greater than that estimated in the last-hired worker equations. This difference may be attributable in part to the fact that the measurement of the influence of the person in charge of hiring on the outcome variables is less precise with the racial composition of firms' employees than with their last-hired workers.

Nevertheless, differences in the black application rate and in factors that affect employers' preferences, such as their customer pool, between firms with white and black employers explain more of the differences in these firms' noncollege employees who are black than do other factors such as firms' labor demand. Moreover, after accounting for all relevant factors, black employers are still significantly more likely to be in charge of hiring at firms where blacks make up a larger proportion of the noncollege

TABLE 6
Estimated OLS Effects of Employer Race on Percentage of Noncollege Employees Who Are Black

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Black employer	0.342***	0.263***	0.198***	0.262***	0.199***	0.182***	0.161***
	(0.025)	(0.024)	(0.022)	(0.024)	(0.022)	(0.020)	(0.020)
Other minority employer	0.015	-0.010	-0.002	-0.008	-0.001	0.005	0.007
	(0.023)	(0.022)	(0.020)	(0.022)	(0.020)	(0.018)	(0.018)
Industry, size, collective bargaining, not-for-profit, location, level of hiring agent	No	Yes	Yes	Yes	Yes	Yes	Yes
Black customers, affirmative action	No	No	Yes	No	Yes	No	Yes
Vacancy and gross hiring rates	No	No	No	Yes	Yes	No	Yes
Black applicants	No	No	No	No	No	Yes	Yes
Adjusted R^2	0.223	0.353	0.459	0.356	0.461	0.553	0.578

*p < .10, ** p < .05, *** p < .01.

Notes: Standard errors are in parentheses. All results are sample-weighted. Sample size is 1258. Columns 1–7 include controls for MSA (L.A. is the reference category) and year of interview.

employees. After we account for these and other relevant factors, the percentage of noncollege employees is between 34 and 55 percentage points higher in firms with black than white employers, depending on whether we include the black application rate, as shown in Models 6 (included) and 8 (excluded).

DECOMPOSING THE RESULTS

Table 7 provides estimates of the difference in receiving applicants from and hiring blacks between white and black employers, based on the various factors examined in this analysis. The first row in panel A shows the raw differences between black and white employers in these dependent variables, as implied from the means in Table 1 for the pooled sample of metropolitan areas. The decompositions in panel A are based on the full-model specifications for each dependent variable and show only those factors that significantly influence the hiring and application rates of blacks. To decompose these equations, we multiply the coefficients of the independent variables that are of concern (e.g., the location-independent variables) by the difference in their means between black and white employers, and divide the summation of these products by the raw mean difference in the outcome variable between white and black employers (which is equal to the summation of the products between the coefficient and the difference in the mean between white and black employers for each independent variable). This fraction is equal to the percentage of the raw differences in these means that are accounted for by the relevant factors.

The results of this exercise indicate that in specifications without the black application rate, the black employer variable continues to account for large fractions (i.e., between 42 and 57 percent) of the raw differences in the hiring and application rates of blacks. The fraction of customers who are black explains fairly large fractions as well (25 to 36 percent), while the firm's size and its location explain a much smaller part (about 18 to 24 percent) of these differences in outcomes between black and white employers.

TABLE 7
Accounting for Difference in Hiring Blacks between White and Black Employers

Panel A	Percent Applicants – Black	Probability Last Hire – Black	Percent Employees – Black
Raw difference between black and white employers[a]	0.265	0.340	0.364
Without percent applicants black[b]			
Percent of difference due to			
Location	17.1	20.4	12.0
Firm size	6.4	4.0	6.1
Black customers	35.7	27.8	24.6
Black employer	42.2	45.3	56.7
With percent applicants black[c]			
Percent of difference due to			
Location	—	9.6	7.5
Firm size	—	1.2	4.2
Black customers	—	11.9	12.7
Black employer	—	23.1	45.0
Black applicants	—	39.9	28.5

Panel B	Race of Employer		Difference
	Black	White	B – W
Adjusted means			
Without percent applicants black[b]			
Percent applicants black – noncollege jobs	0.382	0.263	0.119
Probability last hire is black – noncollege jobs	0.278	0.169	0.109
Percent black – noncollege employees	0.363	0.164	0.199
Ratio last hire black to percent applicants black	0.728	0.643	0.085
With percent applicants black[c]			
Probability last hire is black – noncollege jobs	0.235	0.174	0.061
Percent black – noncollege employees	0.327	0.166	0.161

[a]The raw differences in outcome means between black and white employers are equal to those implied in Table 1 for all metro areas combined.
[b]The decompositions (or predicted means in panel B) are based on model 6 in Table 4, model 6 in Table 5, and model 5 in Table 6 for the respective dependent variables.
[c]The decompositions (or predicted means in panel B) are based on model 8 in Table 5 and model 7 in Table 6 for the respective dependent variables.

The lower part of panel A provides these decomposition estimates from the full-model specifications that include the black application rate. They indicate that the black application rate accounts for most of the difference between white and black employers in the probability that the last noncollege hire is black. On the other hand, the black employer variable remains the biggest contributor to the raw difference in noncollege employees who are black between firms with black and white employers. For both employment measures, the contribution of the firm's size and location to these differences is cut in half when the black application rate is taken into account.

Finally, in panel B we show the adjusted means for the outcome measures that are based on the predicted values calculated at the mean level of each independent variable except for the employer's race, which takes on the values of 1 or 0. The differences in the outcome measures between white and black employers are equal to the coefficients on black employer in the relevant full-model specifications displayed in the previous tables. As noted previously, even after adjusting for a full spectrum of firm characteristics and employer behaviors and preferences, black employers are more likely than white employers to receive applications from and hire blacks. Of more interest here is that after adjusting for these relevant factors, the ratio of the last hire who is black to the percentage of applicants who are black remains higher for black than white employers, though this difference is less than that indicated by the unadjusted ratio shown in Table 1. This indicates that the greater inclination of black than white employers to hire blacks out of the black applicant pool remains after controlling for relevant factors.

Using these and earlier results, we can also simulate what the effect would be on the demand for black labor and on black employment levels of having a larger percentage of blacks in charge of hiring in these metropolitan areas. For instance, if blacks were in charge of hiring in .17 of all establishments (which would be proportional to their current overall representation in these data), then the demand for their labor would rise by about 2 percentage points. The extent to which such a rise in labor demand

would translate into higher employment rates for blacks (as opposed to higher wages) would then depend on the elasticity of their labor supply at the metropolitan or national level.[19]

CONCLUSION

Why are black employers more likely than white employers to hire blacks? The preceding analysis strongly suggests that the answer is because black employers are more likely to receive applications from blacks and are more likely to hire them out of the black applicant pool than are white employers. The black application rate is much higher at firms with black than white employers, even after accounting for relevant firm-level factors including proximity to black populations, and differences in the black application rate between these employers can account for much of the difference in hiring blacks.

These results suggest that having blacks in visible positions of authority at firms, such as those in charge of hiring, can increase the rate at which blacks apply to jobs at firms for two reasons. First, it may signal to potential black applicants that they are less likely to experience discrimination in hiring or promotion or less likely to be working in hostile environments. This is a particularly plausible hypothesis since recent research clearly indicates that blacks apply to firms at greater rates where their conditional hiring rate is higher (i.e., where blacks' expected benefit from search is higher) (Holzer, 2000). Second, it may allow black employers to use informal networks, unobserved in these data, that allow information about job opportunities in firms to flow to black applicants who might otherwise not receive it.

The results also suggest that black employers are more likely than white employers to hire blacks, especially out of the relevant black applicant pool, perhaps because they discriminate less against blacks than do their white counterparts. Of particular note is that at the mean level, these patterns hold despite the fact that the hiring requirements and screening methods are much stricter at firms with black than

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[19]The projected increase in the demand for black labor is based on (.17–.09)*.161, where .09 is the current percentage of hiring agents who are black and .161 is the coefficient on black employers from column 7 of Table 6. The percentage increase in employment generated by a positive shift in labor demand is dD/(ED+ES), where dD

white employers. The conclusion that black employers may discriminate less against blacks in hiring than white employers is supported by recent evidence from audit studies of matched pairs of black and white job seekers that indicates that blacks are discriminated against in hiring, and that this is more true in the suburbs, where black applicants are more likely to face white employers (Bendick, Jackson, and Reinoso, 1994).

Finally, the results also indicate that firm characteristics and black customers explain important but smaller portions of the differences between black and white employers in the hiring of blacks. The racial composition of customers influences the racial composition of hiring at firms (Holzer and Ihlanfeldt, 1998). Since black employers are more likely than white employers to interact with black customers, they are more likely to face pressure from customers to hire blacks. Still, black customers may also influence the black application rate at firms if job information is accessible to them. Moreover, firm size and location account for smaller portions of these differences between white and black employers. But, as has been demonstrated elsewhere, these factors do affect the employment rates of blacks at the establishment level.

The results suggest that an increased presence of blacks among those who manage or own private businesses could significantly increase the employment rates of blacks more broadly. Of course, it is unclear whether and how this should be pursued as an explicit policy goal. For instance, any promotion of black-owned businesses should be based on a wider analysis of the social costs and benefits of doing so, and not just on its effects on black employment alone. Affirmative action policies already generate pressure to promote blacks to positions of authority among private-sector contractors and in the public sector, though it has recently been under attack. Antidiscrimination efforts based on EEO law could be somewhat more focused on managerial or human resources jobs, though complaints about discrimination in any context must be pursued with equal seriousness.

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represents the shift in demand (in percentage terms), and ED and ES are labor demand and supply elasticities, respectively.

At a minimum, the potential positive effects of having more blacks in positions with hiring authority should at least be considered as we debate the merits of various policy options designed to raise the employment rates of blacks more broadly.

TABLE A.1
Regressions of Main Dependent Variables

	Percent Applicants Black – Noncollege Jobs		Probability Last Hire Is Black – Noncollege Jobs		Percent Noncollege Employees Black	
	(1)		(2)		(3)	
Metro area						
Atlanta	0.150***	(0.021)	0.677***	(0.204)	0.088***	(0.016)
Boston	-0.013	(0.020)	-0.107	(0.215)	0.024*	(0.014)
Detroit	0.131***	(0.026)	0.354	(0.232)	0.050***	(0.018)
Year of hire						
1993	0.008	(0.042)	0.074	(0.351)	0.029	(0.029)
1994	0.002	(0.045)	-0.250	(0.394)	0.023	(0.031)
Firm size						
1–19	-0.134***	(0.032)	-0.448*	(0.278)	-0.134***	(0.022)
20–49	-0.081***	(0.031)	-0.377	(0.262)	-0.109***	(0.022)
50–99	-0.043	(0.033)	-0.053	(0.273)	-0.088***	(0.022)
100–499	-0.016	(0.030)	-0.522**	(0.247)	-0.054**	(0.020)
Industry						
Agriculture/mining	-0.162	(0.154)	2.219**	(1.015)	0.170	(0.113)
Construction	0.076	(0.049)	0.279	(0.493)	-0.008	(0.036)
Manufacturing	0.050*	(0.026)	-0.136	(0.278)	-0.036*	(0.019)
Transport./communications/utilities	0.156***	(0.036)	0.773***	(0.306)	-0.025	(0.025)
Wholesale trade	0.072**	(0.032)	0.897***	(0.294)	-0.040*	(0.022)
Retail trade	0.056**	(0.026)	0.191	(0.263)	-0.039**	(0.018)
Services	0.066***	(0.023)	0.232	(0.233)	-0.011	(0.017)
Collective bargaining	0.008	(0.017)	-0.742***	(0.176)	-0.024**	(0.012)
Not-for-profit	-0.057***	(0.022)	0.442	(0.193)	0.021	(0.015)
Location						
Relative distance – black population	-0.223***	(0.045)	-1.216***	(0.438)	-0.081***	(0.032)
Central city – primary	0.057***	(0.018)	-0.127	(0.167)	0.052**	(0.013)
Other areas	0.040**	(0.020)	-0.171	(0.185)	0.016	(0.014)
Distance to public transit stop						
.26 – 1.00 mile	-0.039**	(0.020)	-0.101	(0.201)	-0.021	(0.014)
> 1.00 mile	-0.049***	(0.018)	-0.098	(0.168)	-0.007	(0.013)

table continues

TABLE A.1, continued

	Percent Applicants Black – Noncollege Jobs		Probability Last Hire Is Black – Noncollege Jobs		Percent Noncollege Employees Black	
	(1)		(2)		(3)	
Level of hiring agent						
Owner	0.001	(0.026)	0.141	(0.258)	0.005	(0.019)
Manager/supervisor	0.021	(0.023)	-0.102	(0.218)	-0.011	(0.016)
Personnel department officer	0.034	(0.027)	0.085	(0.242)	-0.048***	(0.018)
Percent applicants – black	--		2.098***	(0.241)	0.384***	(0.021)
Percent customers – black	0.554***	(0.038)	0.908***	(0.324)	0.249***	(0.030)
Affirmative action	-0.018	(0.014)	0.139	(0.133)	-0.011	(0.010)
Vacancy rate	-0.018	(0.072)	0.455	(0.653)	0.052	(0.051)
Gross hire rate	0.006**	(0.003)	0.017	(0.076)	0.003	(0.002)
Recruiting methods						
Help wanted signs/walk-ins	0.002	(0.016)	0.304*	(0.167)	--	
Informal referrals	0.017	(0.020)	-0.080	(0.135)	--	
Public placement agencies	0.028*	(0.015)	0.352*	(0.210)	--	
Private placement agencies	-0.010	(0.017)	0.112	(0.158)	--	
Newspaper ads	0.041***	(0.014)	0.056	(0.129)	--	
Hiring requirements						
High school diploma	--		-0.094	(0.159)	--	
Recent work experience	--		-0.161	(0.148)	--	
Specific work experience	--		-0.032	(0.156)	--	
References	--		-0.238*	(0.147)	--	
Vocational training	--		-0.295**	(0.153)	--	
Hiring practices						
Pre-employment tests	--		0.355***	(0.137)	--	
Criminal check	--		-0.027	(0.145)	--	
Personal interview	--		-0.030	(0.190)	--	
Written application	--		0.078	(0.176)	--	

table continues

TABLE A.1, continued

	Percent Applicants Black – Noncollege Jobs	Probability Last Hire Is Black – Noncollege Jobs	Percent Noncollege Employees Black
	(1)	(2)	(3)
Job tasks			
Customer contact	--	-0.184 (0.163)	--
Phone conversations	--	-0.108 (0.159)	--
Reading/writing	--	-0.139 (0.159)	--
Math	--	-0.378*** (0.152)	--
Computers	--	-0.187 (0.152)	--
Log (starting wages)	--	0.232 (0.201)	--
Constant	0.240*** (0.078)	-1.230 (0.840)	0.143*** (0.052)
-Log L/R^2	0.421	-295.3	0.578
N	1,203	1,099	1,258

Notes: Standard errors are in parentheses. All results are sample-weighted. Columns 1 and 3 are estimated using OLS and correspond with models 7 and 6 in Tables 4 and 6, respectively; column 1 is estimated using probit and corresponds with model 8 in Table 5.

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