

Ethnic Matching of Supervisors to Subordinate Work Groups: Findings on “Bottom-up” Ascription and Social Closure

JAMES R. ELLIOTT, *Tulane University*

RYAN A. SMITH, *Rutgers University*

Research on minority authority attainment tends to stress top-down processes of social closure, whereby the dominant social group produces and preserves positions of power and influence by excluding out-group members. We argue that this view, while helpful, is incomplete. Returning to Weber's original conceptualization of social closure, we argue that top-down exclusion often generates pressures for bottom-up ascription, whereby employers match supervisors to the social characteristics, particularly race and ethnicity, of their subordinate work groups. Results from the Multi-City Survey of Urban Inequality strongly support our argument and also reveal that bottom-up ethnic matching reduces perceptions of racial discrimination among subordinates. These results offer a useful corrective to the assumption that elites only reproduce themselves and underscore the importance of group composition for understanding mobility opportunities available to minority workers.

One explanation for why racial and ethnic minorities are relatively unlikely to occupy positions of authority in U.S. workplaces is that, like all groups, those in power tend to prefer others like themselves, especially when relations of trust are at stake (Baron and Pfeffer 1994; Kanter 1977; Pfeffer and Salancik 1978:146; Salancik and Pfeffer 1978). Because whites have historically been the primary decision makers in organizations, they benefit most from this in-group preference, leaving minorities under-represented in positions of authority. Kanter (1977) refers to this process as “homosocial reproduction,” whereby the group in charge reproduces its ascriptive characteristics in those they select to join them (see also, Bergmann 1986; Brewer and Brown 1998:567).

While we do not dispute this “top-down” process of ascription, we believe that it is incomplete, especially when it comes to understanding opportunities for minority authority attainment. In addition to top-down ascription, we believe that pressures for “bottom-up” ascription also play a key role, whereby the race and ethnicity of lower-level supervisors are matched to the numerically dominant race and ethnicity of their subordinates. As a result, blacks are much more likely to gain authority over largely black work groups; Latinos are much more likely to gain authority over largely Latino work groups; and so forth. In drawing attention to this process, we do not claim that top-down ascription is unimportant, but rather that pressures for bottom-up ascription push against it to shape when and where authority opportunities are likely to arise for minority workers.

Data for this analysis come primarily from the Multi-City Study of Urban Inequality (MCSUI) and are available from the Inter-University Consortium for Political and Social Research (ICPSR) at the University of Michigan. Direct all correspondence to: James R. Elliott, Department of Sociology, 220 Newcomb Hall, Tulane University, New Orleans, LA 70118. E-mail: jre@tulane.edu.

Broadly speaking, our objectives in advancing this argument are twofold. First, we wish to provide further intellectual support to the idea that labor market opportunities depend not just on individual human capital, but also on group membership. In other words, we advocate a contextual approach to understanding social mobility in which the causal dynamics of authority attainment are embedded in group composition. Second, we wish to provide a corrective to the traditional assumption, based on identity theory and truncated interpretations of homosocial reproduction, that elites only reproduce themselves. We argue that the closer one gets to elite status, the more powerful forces of top-down ascription become, but that forces of bottom-up ascription can also be very powerful at lower levels of work organization, where out-group members typically find themselves concentrated.

Below we present the conceptual foundations of our argument. The cornerstone is Max Weber's concept of "social closure," which we trace through recent studies of labor market inequality and link to the emerging sub-field of organizational demography, which focuses on the social psychology of intra-organizational relations and their consequences for employment outcomes. Following that, we provide an empirical test of our ideas using data drawn from three major urban labor markets.

Background

In *Economy and Society*, Weber (1968) highlighted a process he called "social closure" for producing and preserving stratification among groups. By social closure, Weber meant the process by which social collectivities seek to maximize rewards by restricting access to resources and opportunities to a limited circle of eligibles (Parkin 1979:44). Because groups with greater social and political power are better able to restrict access to resources and opportunities than groups with less social and political power, the working definition of Weber's concept of social closure has since become largely unidirectional: those on top exclude those below from the full benefits of joint enterprises, thereby preserving in-group advantage. Among these benefits are labor market rewards, such as income and authority, which are jointly produced within and across organizations, but unequally distributed among socially identifiable groups.

In a recent application of the social closure model to wage inequality, Tomaskovic-Devey (1993a; 1993b) operationalizes the concept in terms of job-level segregation, with males excluding females and whites excluding blacks from the best paying jobs within local labor markets. Conceptually, Tomaskovic-Devey (1993a:9) explains that, "Social closure processes are the means by which *superordinate* groups preserve their advantage by tying access to jobs or other scarce goods to group characteristics," such as race and sex (our emphasis). Here, the vocabulary of social closure is noteworthy not only for its emphasis on top-down ascription, but also because it directs our attention beyond conventional preoccupations with individual human capital to consider how the dominant social group maintains and reproduces its privileged status in the labor market. Moreover, unlike simplistic accounts of (white) employer discrimination, the social closure model acknowledges the stake that advantaged *employees* have in developing and maintaining job segregation—a process which typically sifts and sorts minorities with roughly equal human capital into relatively lower paying jobs.

Kanter (1977) suggests that this process of social closure plays an especially strong role in the allocation of workplace authority. Specifically, she argues that, "Conformity pressures and the development of exclusive management circles closed to 'outsiders' stem from the degree of uncertainty surrounding managerial positions" (1977:48). The logic behind her argument is twofold. First, positions located higher up the organizational chain of command tend to be more unstructured, non-routine, and consequential in

terms of their required tasks, which places a premium on trust. Second, trust is facilitated by social homogeneity because social homogeneity serves as a basis for shared understanding, solidarity, and commitment. Thus, the structural characteristics of managerial positions encourage social closure, or “homosocial reproduction,” whereby key decision makers reproduce their own social characteristics in those they ask to join them in lower positions of authority.

For our purposes, Kanter’s (1977) argument about the relevance of social homogeneity for trust and positions of authority is instructive on several accounts. First, it extends the social closure model of labor market inequality beyond wages to organizational control—an important, but often overlooked social reward. Second, it explicitly links the situational characteristics of control positions to group composition, specifically social homogeneity, or closure. Third, it makes this link in a way that adds a second causal support to the conventional social closure model: it is not simply that those in charge wish to exclude outsiders from good jobs to maintain in-group privilege; those in charge also exclude outsiders to facilitate inter-personal relations presumed important for organizational success, such as trust among supervisors and managers. In this way, Kanter’s argument about homosocial reproduction offers a bridge between the traditional meso, or group-level, component of the social closure model and the micro, or individual-level, component that relates to inter-personal relations within the workplace.

Adding this inter-personal component to the social closure model is useful not only for analytical reasons, but also because it links the social closure model to relevant research emerging from the nascent sub-field of organizational demography, which focuses explicitly on the social psychology of workplace relations. Often traced to Pfeffer (1983), organizational demography builds from two foundational assumptions. First, all people perceive and relate to themselves and others in terms of socially significant categories such as race, gender, age, and educational attainment—a longstanding idea supported by recent research on social identity (see Baron and Pfeffer 1994; Linton 1940, 1942; Parsons 1942; Tajfel 1982; Tajfel and Forgas 1981:113–114). Second, and as Kanter suggests, individuals tend to develop significantly better relationships—ones characterized by greater trust, loyalty, and information exchange—with in-group members than out-group members (Brewer and Kramer 1985; Tajfel and Forgas 1981; Tsui, Xin, and Egan 1995).

Building upon these two assumptions, organizational demographers have entered workplaces to examine the effects of social homogeneity on different types of inter-personal relations, including those between supervisors and subordinates. In one of the earlier studies on the subject, Tsui and O’Reilly (1989) hypothesized that racial and ethnic dissimilarity between supervisors and subordinates exerts a negative effect on how supervisors perceive a subordinate’s performance and how the individual subordinate experiences his or her role at work. To test this dissimilarity-negativity hypothesis, the researchers sampled a group of 344 middle managers and their superiors in a *Fortune 500* corporation. Their findings show that supervisors tend to rate the performance of members of their own race significantly higher than that of members of other races—an outcome that has direct implications for the likelihood of retention and promotion within organizations. Similarly, Tsui and Egan (1994) find that white supervisors tend to rate non-white subordinates significantly lower than white subordinates on citizenship behavior within organizations.

These studies support the social psychological foundations of social closure and homosocial reproduction, while at the same time underscoring the significance of (relative) group composition for labor market opportunity. However, in helping to clarify the inter-personal mechanisms at work, research in organizational demography raises a critical, but often ignored question: If attraction to “similar others” is indeed universal, can it not operate from below as well as from above? That is, in cases where subordinates consist largely of out-group members, will pressures for social homogeneity and attraction to “similar others” not also exert them-

selves from below? Such countervailing pressures not only seem likely, they are consistent with Weber's original conceptualization of social closure.

Contrary to recent top-down interpretations, Weber originally conceptualized social closure as consisting of two conflicting sub-processes. The most obvious sub-process he called *exclusion*, which is practiced by the dominant social group in ways consistent with those outlined by Tomaskovic-Devey and Kanter. The other, largely ignored, sub-process Weber called *usurpation*, which is practiced by the subordinate group in collective response to exclusion. Parkin (1979) suggests thinking of these two countervailing processes of social closure in directional terms. Metaphorically, exclusion is the use of power in the *downward* direction to maintain advantage; usurpation, by contrast, is the use of power in the *upward* direction to win a greater share of resources controlled by the dominant group. According to Weber, these two sub-processes necessarily push against one another to shape the contours of social stratification.

With this fuller conceptualization of social closure in mind, we can usefully return to Kanter's (1977) discussion of homosocial reproduction in the authority attainment process. In her study, Kanter, like Weber, acknowledges that downward pressures of exclusion, or homosocial reproduction, are rarely, if ever, complete. To make sense of this incompleteness, Kanter (1977:55) explains that, "People who do not 'fit in' by *social* characteristics to the homogeneous management group tend to be clustered in those parts of management with least uncertainty." Thus, out-group members in positions of authority tend to be "... closer to the bottom, in more routinized functions, and in 'expert,' rather than decision-making, roles." This perspective suggests that opportunities for minority authority attainment increase toward the bottom of organizational hierarchies because the uncertainty attached to respective supervisory positions declines, thereby relieving pressures for homosocial reproduction from above.

While we do not dispute this argument, we contend that uncertainty alone is insufficient to explain opportunities for minority authority attainment: There must also be motivation for out-group inclusion. We believe that this motivation stems, in large part, from the group composition of those being supervised—a "social fact" that can act in two reinforcing ways, from above and below. First, from below, if a racial minority comprises the majority of employees in a given subordinate work group, this numerical dominance can provide a collective basis for laying legitimate claim to positions of immediate supervision. This agency "from below" is most akin to Weber's original notion of usurpation, whereby the minority group actively annexes a valued social resource, in this case a position of authority. Second, from above, key decision makers may wish to avoid such confrontation and, instead, initiate ethnic matching of supervisors to subordinate work groups themselves to help ensure organizational harmony and commitment among subordinate employees. Other employer motives might include wanting to find ways to conform to affirmative action directives and wanting to find a supervisor who can bridge language and/or cultural gaps. Our point is not that one or the other set of motives for "bottom-up" ascription is primary, but rather that all make "bottom-up" ascription a highly likely organizational outcome.

In making this argument, however, we do not claim that the likelihood of "bottom-up" ascription is uniform at all levels of organizational structure. Such thinking would ignore countervailing pressures of exclusion from above, which we, like Kanter, believe increase with movement up the organizational hierarchy. Rather, we envision a scenario in which bottom-up pressures for ethnic matching, regardless of their source, push against top-down pressures of homosocial reproduction to influence when and where members of particular minority groups are likely to gain access to positions of authority. Toward the bottom of the organizational hierarchy, where supervisory jobs are relatively less coveted and more certain, we believe "bottom-up" ascription will tend to prevail; toward the top of the organizational hierarchy, where supervisory jobs are relatively more coveted and less certain, we believe homosocial

reproduction favoring the dominant group (in this case, whites) will tend to prevail. Below, we discuss the data and measures used to assess this argument empirically.

Data and Measures

Since our central hypothesis involves the ethnic matching of supervisors to subordinate work groups, the ideal data set would consist of a random sample of subordinate jobs within and across employing organizations. Unfortunately, no such data set exists. So our strategy, instead, is to use unique data from individual respondents collected as part of the Multi-City Survey of Urban Inequality (MCSUI). We discuss the implications of this strategy below, but first we provide some background on the MCSUI.

The MCSUI is a stratified, area-probability sample of individuals taken from Atlanta, Boston, Detroit, and Los Angeles during 1992–1994 (see Johnson, Oliver, and Bobo 1994 for details). We exclude Detroit from our analysis because relevant questions about employment were not asked in this portion of the sample, leaving us with data from three major metro areas. The MCSUI is ideal for our purposes because racial and ethnic minorities were over-sampled and because each respondent was asked to provide information about the race and ethnicity of his or her coworkers *and* the race and ethnicity of his or her immediate supervisor—a rarity in labor market surveys. Information about coworkers comes from the following question: “What is the race and ethnicity of most of the employees doing the kind of work you do at your employing establishment?” If the respondent reports that no race or ethnic group comprises a majority, the variable is coded “racially mixed.”¹ Information on supervisors comes from the direct question, “What is the race and ethnicity of your immediate supervisor?” For both coworkers and supervisors, race and ethnicity are defined in broad terms: white, black, Latino, Asian, and “other,” reflecting available coding in the MCSUI. Because we are interested in the ethnic matching of subordinates and supervisors, we exclude respondents who report having no supervisor. We also exclude self-employed and non-civilian workers.

While the above measures make the MCSUI uniquely informative for our purposes, one of the concerns of using a sample of individuals to analyze the matching of subordinate work

1. The face validity of our measure of the race and ethnicity of subordinate work groups is supported if it is positively and significantly correlated with known measures of ethnic economic concentration, which it is. The simple correlation between our work group measure and the local percentage of coethnics working in a given occupational grouping (measured with 1990 PUMS data and discussed in the text) is .35, which is statistically significant at the .0001-level. Also, a simple chi-squared test with a dichotomous measure of “industrial niche” employment (constructed using procedures laid forth by Logan, Alba, and McNulty 1994) is 22.5 with one degree of freedom, which is also statistically significant at the .0001-level.

The reliability of our work group measure hinges on two factors: (1) how broadly respondents construe “doing the same kind of work” they do; and (2) how accurate their assessment of group composition is. When a person works in a job with 10 incumbents, estimates of group composition are likely to be highly accurate. However, when a person works in a job with 100–200 incumbents, which is common in some manufacturing jobs, estimates of group composition are likely to be less accurate. Because the MCSUI does not include information about the number of coworkers in each respondent’s self-defined work group, we must treat both situations as qualitatively the same. While this situation is less than ideal, two considerations give us confidence in the reliability of the measure of the race and ethnicity of work groups used in this research.

First, respondents were asked to give a categorical assessment of group composition—a simple majority rather than an actual percentage. Given that very few jobs are racially balanced (Tomaskovic-Devey 1993a), this assessment should be relatively easy to make accurately and reliably. The second consideration comes from prior research on job composition measures. In his analysis of the North Carolina Employment and Health Survey (NCEHS), Tomaskovic-Devey (1993a) compared racial composition measures derived at the occupational level from the Current Population Survey with those derived from job-based questions in the NCEHS regarding the self-reported percentage of non/whites in each respondent’s job. In the end, he concluded that the two sets of estimates were “nearly identical” and that, “this should be a reassuring finding for readers who [are] skeptical whether survey respondents [can] provide information on the . . . racial composition of their jobs” (1993a:176).

groups is that two or more respondents may be employed in the same work group, resulting in duplicate observations. To minimize this concern, we parsed through the data and identified cases with equal values on eight workgroup-related variables: 3-digit industrial sector, 3-digit occupational grouping, establishment size, race of supervisor, sex of supervisor, race of co-workers, union status, and city of residence. Our rationale was that if multiple respondents have equivalent values on all eight variables, there is a reasonable chance they work in the same work group. In our sample of 3,868 respondents, we identified 53 such duplications: 49 with one duplicate; two with two duplicates, and one with five duplicates. For each of these 53 sets, we randomly selected one case and excluded the rest to ensure that each respondent in our sample reported information on a unique subordinate work group. The result is a sample of 3,808 respondents reporting on an equal number of subordinate work groups.

A second potential concern with using a sample of individuals to analyze subordinate work groups, or jobs, is that the sample is likely to favor larger work groups. This tendency arises because jobs, or work groups, with large numbers of incumbents have more members “at risk” of being selected into the sample. Although this type of bias is generally to be avoided, the fact that work groups are sampled “proportional to size” means that larger work groups show up more often in our sample because more people are employed in them—an ideal sampling strategy for generalizing to employment relations in general. Moreover, we are more interested in the ethnic matching of supervisors to larger and more complex work groups than to groups comprised of only a few workers. This interest derives from two assumptions: (1) that pressures for bottom-up ethnic matching tend to increase with the size of the subordinate work group, all else equal; and (2) that ethnic matching among small work groups may simply reflect organizational homogeneity rather than ethnic matching of supervisors to specific work groups within the organization.

Measures

In addition to the measures discussed above, we include other work group and establishment variables in our multi-variate analyses that we believe might affect ethnic matching of supervisors to subordinate work groups. The first set of variables relates to the relative position of the subordinate work group in the labor market. We suspect that to the extent that it exists, the tendency for ethnic matching of supervisors to subordinate work groups will decrease for minorities with movement up the employment hierarchy. This expectation follows from two general assumptions: (1) most key decision makers are white; and (2) their affinity for selecting “similar others” (i.e., other whites) for positions of authority increases and likely outweighs countervailing pressures for co-ethnic matching of minority supervisors to minority work groups with movement up the employment hierarchy. In other words, employers are more likely to submit to bottom-up pressures for minority supervision at the bottom of the labor market than at the top, since authority positions toward the top remain a coveted social resource (Smith, 1999).

To test this expectation, we use a measure of *logged hourly wages* as our measure of hierarchical position in the labor market, with the assumption that wage information provided by each respondent offers a reasonable indicator of the average pay in his or her work group. Also, because we believe that the inverse relationship between co-ethnic matching and wages applies only to racial and ethnic minorities, and not to whites, we include an interaction term to test for this differential effect.

The second set of variables in our multi-variate analyses includes workplace characteristics that might affect ethnic matching. The first such variable is *establishment size* which can influence the vertical and horizontal complexity of authority structures within organizations, as well as the size and heterogeneity of the work group in question. Despite the anticipated importance of this variable, its expected effect is ambiguous. Villemez and Bridges (1988) found that a curvilinear relationship exists between firm size and authority attainment among

minorities, but larger organizations may also bring with them greater amounts of sex and race segregation on the job (Bielby and Baron 1986). We use a logarithmic transformation (natural log) of establishment size, measured in number of employees, with the expectation that its effect on supervisor-subordinate matching is nonlinear.

Union status is also an important factor to consider because some minorities (mainly blacks) are disproportionately concentrated in jobs that bring with them union membership (U.S. Bureau of Labor Statistics, September 1998), which can affect the likelihood of working in a predominantly minority work group and the likelihood of having a co-ethnic-minority supervisor (Kluegel 1978; Mueller, et al. 1989). This variable is coded 1 if the respondent reports being a union member, 0 otherwise.

Like unionized jobs, the *public sector* is also a bastion of employment and authority opportunities for urban minorities, particularly blacks (Fernandez 1975; Wilson 1997), and so we also include a dummy indicator for it. This measure is coded 1 if the respondent reports being employed in a public organization, 0 otherwise. The expectation is that work groups in the public sector are more likely to have minority supervisors than work groups in the private sector, and so the co-ethnic matching of minority supervisors to co-ethnic subordinates will be higher in this sector, all else equal.

The third and final set of variables includes measures for the racial and ethnic composition of the work group's local industrial sector and occupational grouping. We include these control variables because we are interested in the ethnic matching of supervisors to subordinate work groups within organizations, net of racial and ethnic concentrations across organizations within the local labor market. To operationalize the racial composition of each work group's *industrial sector*, we use an industrial typology developed by Logan, Alba, and McNulty (1994) and extended by Model (1997) to subdivide each metro economy into 48 distinct industrial sectors. Within each metro area, we then compute the percentage of non-self-employed workers in each sector that is non-Hispanic white, black, Latino, and Asian using data from the 1990 Five-Percent Public Use Micro-Samples (PUMS). To define the local racial composition of *occupational groupings*, we perform the same basic procedure for 43 occupational groupings. (These occupational groupings are based on two-digit Census Occupation Codes and are available upon request.) These industrial and occupational measures of local racial and ethnic concentration are then appended to respective respondents in the MCSUI, completing our data set, which we analyze below.

Results

Table 1 presents the racial distribution of workers, work groups, and supervisors in the sample metro areas, as well as the degree of ethnic matching among them. The first three columns both affirm and extend well-documented racial and ethnic differences in the distribution of job authority: whites are over-represented in supervisory positions relative to their share of supervised workers ($78.6/67.3 = 1.17$), and minorities are under-represented, with Latinos (.48) being the most under-represented, followed by blacks (.65) and finally, Asians (.88).

For our purposes, these distributions are less salient than measures of ethnic matching. As a point of departure, Column 4 reports the percentage of subordinate workers employed in ethnically homogeneous work groups. Overall, we find a relatively high degree of ethnic clustering among minority workers, with the highest level occurring among Latinos. Columns 1 and 4 show that while Latinos comprise only 17 percent of supervised workers in the sample metro areas, 67 percent work in mostly co-ethnic work groups. The next highest rate is among Asians at 52 percent, followed by blacks at 36 percent.

Column 6 speaks directly to the ethnic matching, or congruence, of supervisors to subordinate work groups—our central concern. Results show that although blacks comprise only

Table 1 • Racial/Ethnic Distribution and Matching of Subordinate Individuals, Subordinate Work Groups, and Supervisors

Respective Race and Ethnicity	Racial \neq Ethnic Distributions			Racial \neq Ethnic Matching		
	% of Subordinate Workers	% of Subordinate Work Groups ^a	% of Supervisors	% of Respective Subordinate Workers in Coethnic Work Groups	% of Respective Subordinate Workers with Coethnic Supervisors	% of Respective Subordinate Work Groups with Coethnic Supervisors
	(1)	(2)	(3)	(4)	(5)	(6)
Full Sample (N = 3,808)						
White	67.3%	64.2	78.6	78.2	88.7	89.6
Black	10.8	7.7	7.0	35.8	28.3	47.7
Latino	16.9	13.5	8.1	66.8	39.6	49.6
Asian	4.3	2.9	3.8	52.3	56.7	75.3
Other	0.7	11.7	2.6	n/a	n/a	n/a
Total	100.0	100.0	100.1			
Establishments with 100+ Workers (N = 1,622)						
White	73.2	67.6	83.0	77.0	88.6	92.3
Black	11.5	7.1	6.7	31.3	25.9	42.0
Latino	11.6	8.2	4.5	49.5	30.7	41.3
Asian	2.9	1.9	3.4	21.9	30.1	40.3
Other	0.9	15.2	2.4	n/a	n/a	n/a
Total	100.1	100.0	100.0			

^a The race and ethnicity of subordinate work groups are defined by the majority group. If no group comprises a majority, the group is categorized as "other," or mixed.

seven percent of all supervisors in the sample metro areas, they comprise 48 percent of supervisors holding authority over predominantly black work groups. The implication is that blacks are $48/7 = 6.9$ times more likely to supervise black work groups than work groups in general. The corresponding ratio for Latinos is 6.1, and for Asians, it is a staggering 19.8. These ratios compare to a ratio of 1.1 for whites and lend strong prima facie support to the idea that minority supervisors tend to be matched to largely co-ethnic work groups.

To determine if this pattern is an artifact of relatively small, family-run businesses, we recalculated the same statistics for establishments employing one hundred or more workers. This complementary set of results appears in the bottom panel of Table 1 and suggests two general conclusions regarding workplace size and its relationship to the ethnic matching of supervisors to subordinate work groups. First, workplace size appears to exert little influence on the propensity of white supervisors to be matched to white work groups. Second, among minorities, larger workplaces suppress, but do not eliminate, high rates of ethnic matching. The biggest suppression occurs among Asians: results in the bottom panel of column 6 show that 40 percent of Asian work groups in establishments with one hundred or more workers have Asian supervisors compared with 75 percent of Asian work groups in establishments of all sizes (top panel). While this 35-point drop is substantial, it does not eliminate the relative importance of ethnic matching of Asian supervisors to Asian work groups in large establishments: Asians in large establishments are still $40/3 = 13.3$ times more likely to supervise Asian work groups than to supervise work groups in general. Among blacks and Latinos, the corresponding ratios are smaller, but still noteworthy: 6.3 and 9.2 respectively.

In sum, Table 1 supports the idea that employers tend to match the race and ethnicity of supervisors to that of their subordinate work groups, deliberately or otherwise. It also reveals, for the first time, that such ethnic matching is stronger at the level of subordinate work groups than at the level of subordinate individuals. For example, 28 percent of black *workers* in the sample report a co-ethnic supervisor (column 5) as compared with 48 percent of black *work groups* (column 6). Next we subject these patterns to more rigorous multi-variate analysis.

Multi-variate Analysis of Ethnic Matching

In this section we estimate four logit models, each predicting the likelihood of having a supervisor of a particular race and ethnicity—a white supervisor (yes/no); a black supervisor (yes/no); and so forth. The main independent variable of interest is the dummy indicator for the coethnic subordinate group (e.g., the indicator for the black work group in the black supervisor model). The expectation is that the coefficient for this indicator will be large, positive, and statistically significant, net of background factors, reflecting the ethnic matching of supervisors to subordinate work groups.

Results in Table 2 support this expectation, showing that the coefficients for coethnic work groups (shaded grey) are the largest and most statistically significant predictors of the respective race and ethnicity of immediate supervisors. Results also confirm that this matching is stronger among minorities than whites, net of other factors. To calculate the extent of this matching effect, it is necessary to consider the coefficient for a respective coethnic work group in conjunction with its interaction term with hourly wages (discussed below). Assuming a constant hourly wage of ten dollars for comparison purposes, calculations indicate that the odds that a black work group will have a black supervisor are 10.8 times greater than the odds that a white work group will have a black supervisor. Likewise, the odds that a Latino work group will have a Latino supervisor are 11.2 times greater than the odds that a white work group will have a Latino supervisor. The corresponding ratio for Asian work groups is 71 (!)—in other words, within the three sample metro areas, Asians almost never supervise white work groups, whereas they very often supervise coethnic work groups.

Given such strong empirical support for the ethnic matching hypothesis, the next question is whether the likelihood of such matching declines for minorities with movement up the job

Table 2 • Logit Results Predicting the Race/Ethnicity of One's Immediate Supervisor

	<i>White Supervisor</i> (1 = yes; 0 = no)	<i>Black Supervisor</i> (1 = yes; 0 = no)	<i>Latino Supervisor</i> (1 = yes; 0 = no)	<i>Asian Supervisor</i> (1 = yes; 0 = no)
Race of Work Group				
White	3.557***	—	—	—
Black	—	4.276***	-.240	-.424
Latino	.243	.072	3.868***	.881***
Asian	-.899***	-.689	-.715	7.018***
Mixed/Other	1.136***	.963***	.802**	.879**
Ln (hourly wage)	.697***	-.169	-.397	.498**
Ln (hourly wage) x coethnic work team	-.615***	-.699**	-.632*	-1.199***
Local Industrial Composition				
% White	-.010	—	—	—
% Black	—	-.003	.026	-.054*
% Latino	-.009	-.033	.001	.018*
% Asian	-.038	.010	-.009	.069**
Local Occupational Composition				
% White	.001	—	—	—
% Black	—	.001	-.006	.012
% Latino	-.005	.008	.004	-.005
% Asian	.007	-.014	-.022	.014
Ln (establishment size)	.027	.026	-.019	-.136**
	-.556***	.640***	.126	-.003
Public sector position				
	-.363***	.412**	.427**	-.232
Unionized position				
City of Residence				
Atlanta	.185	-.662	-2.463***	-.363
Boston	.757**	-1.528***	-.465	-1.086*
Los Angeles	—	—	—	—
Constant	-1.182	-1.642**	-2.053**	-4.555*
N	3,808	3,808	3,808	3,808
Chi-squared (df)	1249.1 (7)	996.9 (17)	927.1 (17)	1132.5 (17)

* p < .05 ** p < .01 *** p < .001

hierarchy. To answer this question, we included a measure of logged hourly wages along with an interaction term between it and the coethnic work group in question. If, as we expect, whites are *less* likely to cede organizational authority toward the top of the employment hierarchy, coefficients for the interaction terms in the minority supervisor models should be statistically significant, negative, and larger in magnitude than the first-order coefficients for hourly wage. This expectation is generally confirmed. By contrast, results for whites show very little decline in the likelihood of coethnic matching with increased wages ($.697x - .615x = .082x$), all else equal.

To facilitate interpretation of these findings, we simulated rates of coethnic matching for respective work groups at different wage levels using the regression coefficients in Table 2 along with pooled sample means for respective control variables. Results of these simulations appear in Figure 1. They show, for example, that 60 percent of black work groups earning five dollars an hour have black supervisors, net of other factors, whereas only 30 percent of black

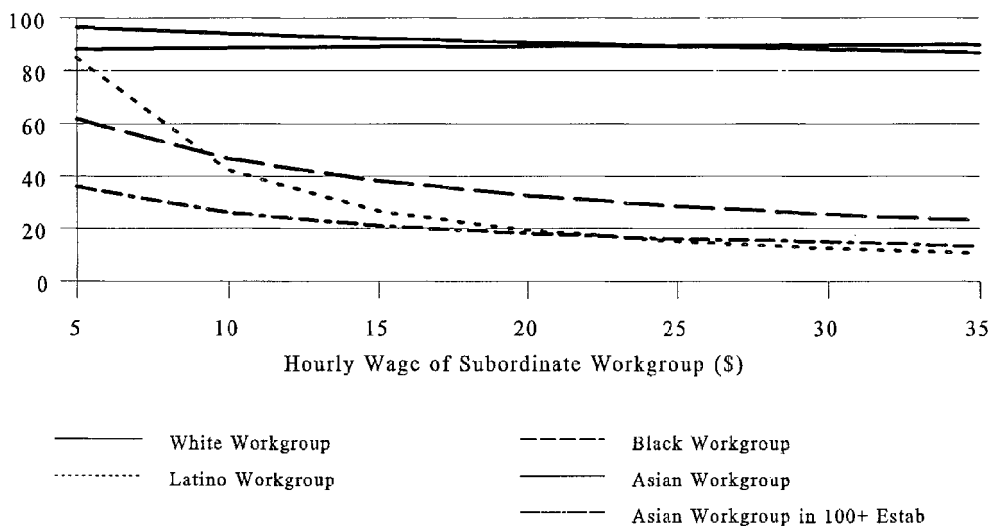


Figure 1 • Simulated percent with Coethnic Supervision, by Subordinate Hourly Wage
Source: Logistic regression coefficients from Table 2 with pooled sample means used for values of respective control variables to hold all else constant.

work groups earning twenty dollars an hour do. For Latino work groups the corresponding decline is from roughly 80 percent to 20 percent. By contrast, among Asian work groups, simulations reveal that once compositional differences are controlled, wage levels have relatively little effect on the likelihood of having a coethnic supervisor. This is because Asian work groups in the sample metro areas, particularly Los Angeles, are extremely likely to have Asian supervisors. So the statistically significant declines across wage levels result in substantively small changes in the real world—coethnic matching for Asian work groups declines from 96 percent of cases at \$5/hour to 87 percent at \$35/hour.

Because results in Table 1 suggest that coethnic matching among Asians is particularly sensitive to workplace size, we re-estimated the Asian model in Table 2 with a restricted sample of workers in establishments with one hundred or more employees. We then re-simulated the wage effects and present the results in Figure 1 for comparison purposes. These alternative simulations show that the percentage of Asian work groups with a coethnic supervisor peaks at 36 at \$5/hour and declines to 11 percent at the \$35/hour level. In other words, Asian work groups in large establishments exhibit a much lower rate of coethnic matching and a more substantial wage effect than counterparts in smaller establishments. This pattern could be a function of the unique labor market situations of Asians in Los Angeles and Boston and/or a reflection of relatively small sub-sample size. We are unable to tell with the data at hand and invite future research to consider this issue.²

2. The relative importance of establishment size for findings among Asian work groups returns us to the question of measurement reliability. Although we use of a simple categorical indicator for racial job composition, it is plausible that larger workplaces cloud even categorical assessments about the racial majority of coworkers, thereby introducing a potential source of error into our model estimations in Tables 2 and 4. To assess this source of error directly, we conducted a series of reliability analyses similar to those run by Tomaskovic-Devey (1993b:73). The baseline hypothesis is that if larger workplaces produce less reliable estimates of the racial composition of jobs, and this bias affects regression estimation, then our measure of establishment size should correlate with the absolute value of the residual of the regression on our dependent variables in Tables 2 and 4. (The absolute value of the residuals is used because the hypothesis is about error in measurement in general, not error in measurement of a particular direction.)

In the meantime, findings in Table 2 and Figure 1 support our general argument: the tendency for ethnic matching of minority supervisors to coethnic work groups is strong and tends to decline with movement up the job hierarchy. To help ground these multivariate results in the actualities of the local labor markets in question, Table 3 provides data on the most common industrial and occupational categories for minority work groups at different levels of pay. It also reports mean rates of coethnic and white supervision at each level of pay, lending further support to the simulated results displayed in Figure 1.

As a final step in our analysis, we wish to assess the effects of having a coethnic supervisor on intra-organizational relations. Before we take this last step, however, two supplemental findings from the control variables in Table 2 deserve mention. First, net of other factors, results show that blacks are nearly twice as likely to have coethnic supervisors in the public sector as in the private sector ($\exp(.640) = 1.9$). This increase, while substantial, is less than half that associated with being in a coethnic work group in the private sector at an average rate of pay. The implication is that the “real” factor accounting for relatively high rates of black mobility in the public sector (Wilson 1997; Wilson, Sakura-Lemessy, and West 1999) might be that black work groups are more prevalent in this sector, not that the public sector is more egalitarian in its distribution of positions of power and influence.

Second, the odds that black and Latino workers have coethnic supervisors increases significantly in unionized workplaces, whereas the opposite is true for whites. Additional analyses (not shown) affirm that this effect remains statistically significant after controlling for industrial sector. So unionization’s observed (positive) effect on the likelihood that black and Latino workers have coethnic supervisors does not appear to be a spurious reflection of industrial location. We suspect that this finding reflects the fact that, relative to their proportions in the population, blacks, and to a lesser extent Latinos, are over-represented both as union members and as workers occupying jobs that are covered by collective bargaining agreements.

Effects of Coethnic Matching on Perceived Discrimination

Prior research on intra-organizational homogeneity has found significant correlations between ascriptive homogeneity and job satisfaction, organizational commitment, and firm performance (Carroll and Harrison 1998; Eisenhardt and Schoonhoven 1990; Jackson 1991; Mueller, Finley, Iverson, and Price 1999; Tsui, Egan and O’Reilly 1992; Wagner, Pfeffer, and O’Reilly 1984; Williams and O’Reilly 1998). In the present study we examine a different type of workplace outcome: a worker’s perception of racial discrimination on the part of his or her employer. This outcome is operationalized as a dummy variable from the following question: “Have you ever felt at any time in the past that others at your place of employment got promotions or pay raises faster than you did because of your race or ethnicity?” The indicator is coded 1 if the respondent answered yes, and 0 otherwise; mean values range from .07 among whites to .22 among blacks.

Results for ethnic matching (corresponding to Table 2) indicate a positive and significant partial correlation between logged establishment size and the absolute residual for having a white supervisor and for having a black supervisor. In other words, ethnic matching appears to be measured with greater error for blacks and whites in larger establishments than for other groups. Because increased measurement error typically attenuates observed associations, these reliability tests suggest that we may be *underestimating* the effects of racial job composition on the log-odds of having a white or black supervisor. Since nonwhites, on average, are more likely to be employed in larger establishments than other groups (Marsden, Cook, and Knoke 1996:55), this bias may *understate* ethnic matching among blacks the most.

Results for our model predicting perceived discrimination (Table 4) indicate a positive and significant correlation for the minority-only model. This finding suggests that perceived discrimination among minorities tends to be measured with greater error in larger workplaces. The implication is that the association between having a coethnic supervisor and perceived discrimination may be *underestimated* for minorities in larger establishments. In sum, these diagnostic analyses suggest that, if anything, our findings are statistically conservative and that perfect measurement would generate stronger observed correlations than those presented.

Table 3 • Most Common Industrial and Occupational Categories for Minority Work Groups by Hourly Wage

Hourly Wage	Black Work Groups			Latino Work Groups			Asian Work Groups		
	Industries	Occupations	Industries	Occupations	Industries	Occupations	Industries	Occupations	Industries
>\$20	primary/secondary schools; banking and credit agencies	teachers & vocational counselors; health assessors & treaters	transportation equipment; health services, except hospitals	health technologists & related support; other technologists & technicians	hospitals; banking/credit agencies	engineers, architects & surveyors; health assessors & treaters			
% Coethnic supervisor	28.5%			23.9%		14.7%			
% White supervisor	69.2%			61.4%		69.3%			
\$11-20	hospitals; public administration	computer operators & record processors; executives & administrators	construction; wholesale trade	transportation occupations; teachers & vocational counselors	hospitals; banking & credit agencies	mathematical & computer scientists; health assessors & treaters			
% Coethnic supervisor	43.8%			28.6%		28.8%			
% White supervisor	47.2%			52.7%		42.0%			
\$6-10	eating & drinking places; primary/secondary schools	food preparers & servers; teachers & vocational counselors	construction; eating & drinking places	handlers, cleaners, helpers & laborers; machine operators	banking/credit agencies; private household services	health services; food preparers & servers			
% Coethnic supervisor	53.8%			50.1%		35.2%			
% White supervisor	43.9%			38.6%		59.8%			
≤\$5	business services; eating & drinking places	security personnel; sales workers	apparel/finished textile products; eating & drinking establishments	machine operators; textile/apparel/furnishings machine operators	apparel/finished textile products; grocery/dairy stores, retail bakeries	textile/apparel/furnishings machine operators; handlers, cleaners & laborers			
% Coethnic supervisor	55.6%			61.4%		87.6%			
% White supervisor	25.6%			25.9%		3.7%			

We believe this measure of perceived racial discrimination is worth investigating for several reasons. First, it taps perceptions of unfairness within one's employing organization—sentiments that can undermine authority and create awkward and litigious interactions between workers and management. Whether or not these perceptions are founded is relatively unimportant because it is the subjective experience of discrimination that stimulates personal and collective reactions, not the “objective” legitimacy of this experience. Second and relatedly, we suspect that one reason why employers match supervisors to coethnic work groups is to maximize organizational harmony by minimizing perceptions of organizational unfairness with respect to group inequalities in opportunities for upward mobility. If our suspicion is correct and our earlier findings are valid, we would expect workers who share the race and ethnicity of their immediate supervisors to perceive less racial discrimination than workers who do not share the race and ethnicity of their immediate supervisors.

To test this hypothesis, we predict our dummy indicator of perceived racial discrimination using a logit model that includes first-order effects for worker and workplace characteristics, as well as an interaction term for having a coethnic supervisor and working in a coethnic work group. This model is estimated three times: once for the entire sample; once for minorities; and once for whites. Results appear in Table 4 and lend themselves to several general conclusions. First, consistent with expectation, having a coethnic supervisor significantly reduces perceived discrimination among minorities. Net of other factors, the odds that a minority worker feels discriminated against are more than a third lower in a position with a coethnic supervisor than in a position with a non-coethnic supervisor ($1 - \exp(-.458) = .37$).

Table 4 • Logit Results Predicting Perception of Racial Discrimination at Workplace

	<i>DV: 1 = Feelings of Racial Discrimination; 0 = No Such Feelings</i>		
	<i>Full Sample</i>	<i>Minorities Only</i>	<i>Whites Only</i>
Race of Individual Respondent			
White	—		
Black	1.194***	1.378***	
Latino	.609**	.791**	
Asian	-.128	—	
Work Group Characteristics			
Coethnic work group	-.057	-.094	.654
Coethnic supervisor	-.319	-.458*	.128
Coethnic work team & supervisor	-.351	-.036	-1.471*
Control Variables			
Female	-.295**	-.344**	-.079
Years of schooling	.058**	.063**	.034
Ln(hourly wage)	.076	.168	-.272
Public sector position	-.019	-.069	.138
Unionized position	-.097	-.144	.142
Ln(size of establishment)	.088**	.083**	.135
City of Residence			
Atlanta	.167	.185	.073
Boston	-.025	.037	-.287
Los Angeles	—	—	—
Constant	-3.416***	-3.827***	-2.761**
N	3,754	2,737	1,017
Chi-squared (df)	230.2 (14)	157.9 (13)	22.7 (11)

* p < .05 ** p < .01 *** p < .001

Three other factors help to explain the likelihood of perceived discrimination on the part of minority workers. The first factor is establishment size. Results show that minorities in large workplaces are significantly *more* likely to perceive discrimination than minorities in small workplaces. The second factor is years of education, which also exhibits a positive correlation—educated minority workers are more likely to perceive racial discrimination than less-educated minority workers. This finding is consistent with recent arguments regarding the negative experiences of the black middle-class in their interactions with “white” America (Cose 1993; Feagin and Sikes 1994; Pattillo-McCoy 1999). The final factor is gender—minority men are more likely to perceive discrimination than minority women.

One overarching explanation for all three effects is that they reflect a sense of “opportunities denied,” which trigger potential feelings of discrimination. For example, larger establishments generally provide more opportunities for upward mobility than smaller establishments, and so when such opportunities are not realized, discrimination becomes a potential explanation. By contrast, if few opportunities are available for advancement, discrimination becomes less relevant for explaining missed opportunities because so few opportunities existed in the first place. An extension of this explanation would also argue that more educated minorities have more opportunities available to them than less-educated minorities, ditto for men compared with women, and that these different opportunity structures help to explain group differences in perceptions of racial discrimination, in addition to non/coethnic matching.

Finally, it is noteworthy that these three variables—establishment size, years of schooling, and gender—exert no significant effect on whites’ perceptions of racial discrimination, perhaps because the likelihood of such perceptions is so low to begin with. In fact, the only significant coefficient in the white-only model is for the interaction term for the relative ethnicity of the respondent’s supervisor and work group. This coefficient indicates that white workers who are employed in white work groups under white supervisors are much less likely to perceive racial discrimination than white workers employed in one or the other situation (i.e., in jobs where they do not comprise a majority or do not have a white supervisor). Of these two dimensions, the ethnicity of supervisor is the most important. Reverse-coding indicates that, all else equal, white workers with non-white supervisors are $\exp(1.333) = 3.8$ times more likely to perceive racial discrimination than white workers with white supervisors.

Summary and Conclusion

In this paper we have argued that pressures for social closure operate from below as well as from above, and that these two forces push against one another to shape opportunities for minority authority attainment. In making this argument, we sought not only to emphasize the contextual dimensions of the authority attainment process and their effects on minority mobility but also to provide a useful corrective to the conventional assumption that elites only reproduce themselves. To the extent that key decision makers tend to concentrate minority employees in particular jobs, and to the extent that job concentration tends to create pressures, both direct and indirect, for bottom-up ascription, we believe that conventional top-down processes of social closure can generate countervailing pressures for bottom-up ethnic matching of supervisors to subordinate work groups.

Empirical analysis generated several major findings in support of our argument. First and foremost, results show that the numerically dominant race and ethnicity of a subordinate work group is an extremely powerful predictor of the race and ethnicity of its immediate supervisor, particularly among minorities. Indeed, specific calculations indicate that minorities are at least seven times more likely to hold positions of authority over coethnic work groups than over work groups in general. Second, results show that coethnic supervision significantly decreases perceptions of racial discrimination among subordinates, which suggests that employers might match minority supervisors to coethnic work groups in order to minimize racial

tensions and increase organizational harmony and commitment among subordinates. Such bottom-up ethnic matching might occur through promotion from within the subordinate work group, consistent with research on internal labor markets and organizational demography, or through deliberate coethnic appointments from without. Our data do not allow us to determine which dynamic is more prevalent nor whether job segregation and ethnic matching are deliberately imposed from above or pursued from below. Answers to these questions most likely require qualitative ethnographic information that we lack in our survey data.

Third and finally, results show that evidence for bottom-up ethnic matching among blacks and Latinos, and among Asians in large establishments, declines significantly with movement up the wage hierarchy, which suggests that countervailing pressures for “top-down” social closure, or exclusion, by whites increase with movement up the organizational chain of command. Kanter’s (1977) argument suggests that this pressure “from above” derives from the increasing uncertainty of authority positions toward the top of the corporate hierarchy and attending pressures for (white) social homogeneity. A complementary explanation is that these higher positions of authority constitute a coveted social resource that whites, as a group, are reluctant to relinquish, even in the face of pressures for bottom-up ascription.

Overall, we see these findings as contributing to future research that seeks to develop a more comprehensive understanding of the role of social closure in minority authority attainment. We also see it as offering perhaps a metaphorical shift in our understanding of this process generally. For years now, the image of a “glass ceiling” has gained widespread popularity as a way of conceptualizing limited mobility among minorities (and women) in the workplace. Consistent with top-down treatments of social closure, the image is one in which minority mobility is constrained by promotional barriers put into place by the in-group preferences of higher-level (white male) managers. Our findings suggest that the metaphor of a “sticky floor” may be more apt. In this analogy, a group’s position in an organization constitutes the “sticky floor”—one that keeps opportunities for in-group authority attainment “adhered” to it. If one’s ethnic group dominates only entry-level jobs within an organization, then one’s authority chances will be restricted largely to supervising those entry-level jobs. If one’s ethnic group dominates higher-level positions, then one’s authority chances will increase accordingly. The principle point is that group composition and position within organizations are key and that these dynamics make it difficult for individuals to advance more than one notch above positions that their ethnic group dominate numerically.

In advancing this alternative metaphor, we do not wish to imply that organizations or groups conspire to limit the life chances of others, although some might. Instead, we believe that countervailing forces of social closure are more subtle and profound, occurring simply by way of doing “business as usual”—maintaining the status quo is more than enough to maintain racial stratification in the workplace.

In closing, we remind the reader that these findings and conclusions are based on a somewhat unique analytical strategy—the use of a sample of individuals to draw inferences about the effects of work group composition and position within organizations. Moreover, as with most inferential studies, we do not have data on the direct actions, sentiments, and motives of individuals involved in our study, although our findings are consistent with ethnographic studies that have found minorities channeled into “racialized” jobs within large organizations (e.g., Collins 1997). For both these reasons, we consider the present study as merely a first step towards developing a better understanding of the role of social closure in the authority attainment process. In thinking ahead, it stands to reason that as workplaces continue to diversify along race, ethnic, and gender lines, so will the need, on the part of employers, workers, labor leaders, and policy analysts, to understand the impact of diversity on individual-level and organizational-level outcomes. We look forward to further research in this direction.

References

- Baron, James and Jeffrey Pfeffer
 1994 "The social psychology of organizations and inequality." *Social Psychology Quarterly* 57, 3:190-209.
- Bergmann, Barbara R.
 1986 *The Economic Emergence of Women*. New York: Basic Books.
- Bielby, William T. and James N. Baron
 1986 "Men and women at work: Sex segregation and statistical discrimination." *American Journal of Sociology* 91:759-799.
- Brewer, Marilynn B. and R. J. Brown
 1998 "Intergroup relations." In *Handbook of Social Psychology*, Daniel T. Gilbert, Susan T. Fiske, and Gardner Lindzey, eds., 554-594. Boston: McGraw-Hill.
- Brewer, Marilynn B. and Roderick M. Kramer
 1985 "The psychology of intergroup attitudes and behavior." *Annual Review of Psychology* 36:219-243.
- Carroll, Glenn R. and J. Richard Harrison
 1998 "Organizational demography and culture: Insights from a formal model and simulation." *Administrative Science Quarterly* 43:637-667.
- Collins, Sharon
 1997 *Black Corporate Executives: The Making and Breaking of a Black Middle Class*. Philadelphia: Temple University Press.
- Cose, Ellis
 1993 *The Rage of a Privileged Class*. New York: Harper Collins.
- Eisenhardt, Kathleen M. and Claudia B. Schoonhoven
 1990 "Organizational growth: Linking founding team, strategy, environment, and growth among U.S. semiconductor ventures, 1978-1988." *Administrative Science Quarterly* 35: 504-529.
- Feagin, Joe R. and Melvin L. Sikes
 1994 *Living with Racism: The Black Middle Class Experience*. Boston: Beacon Press.
- Fernandez, John P.
 1975 *Black Managers in White Corporations*. New York: John Wiley and Sons, Inc.
- Jackson, Susan
 1991 "Team composition in organizational settings: Issues in managing an increasingly diverse workforce." In *Group Process and Productivity*, Stephen Worchel, Wendy Wood, and Jeffrey Simpson, eds., 138-176. Newbury Park, CA: Sage.
- Johnson, James H., Melvin Oliver, and Lawrence Bobo
 1994 "Unraveling the paradox of deepening urban inequality: Theoretical underpinnings and research design of a multi-city study." *Urban Geography* 15:77-89.
- Kanter, Rosabeth Moss
 1977 *Men and Women of the Corporation*. New York: Basic Books.
- Kluegel, James
 1978 "The causes and cost of racial exclusion from job authority." *American Sociological Review* 43:285-301.
- Linton, Ralph
 1940 "A neglected aspect of social organization." *American Journal of Sociology* 45:870-886.
- Linton, Ralph
 1942 "Age and sex categories." *American Sociological Review* 7:589-608.
- Logan, John, Richard Alba, and Thomas McNulty
 1994 "Ethnic economies in metropolitan regions: Miami and beyond." *Social Forces* 72:691-724.
- Marsden, Peter V., Cynthia R. Cook, and David Knoke
 1996 "American organizations and their environments: A descriptive overview." In *Organizations in America: Analyzing Their Structures and Human Resource Practices*. Thousand Oaks, CA: Sage Publications.
- Model, Suzanne
 1997 "Ethnic economy and industry in mid-twentieth century Gotham." *Social Problems* 44, 4:445-463.

- Mueller, Charles W., Ashley Finley, Roderick D. Iverson, and James L. Price
1999 "The effects of group racial composition on job satisfaction, organizational commitment, and career commitment." *Work and Occupations* 26:187–219.
- Mueller, Charles W., Toby L. Parcel, and Kazuko Tanaka
1989 "Particularism in authority outcomes of black and white supervisors." *Social Science Research* 18:1–20.
- Parkin, Frank
1979 *Marxism and Class Theory: A Bourgeois Critique*. New York: Columbia University Press.
- Parsons, Talcott
1942 "Age and sex in the social structure of the United States." *American Sociological Review* 7:604–616.
- Pattillo-McCoy, Mary
1999 *Black Picket Fences: Privilege and Peril among the Black Middle Class*. Chicago: University of Chicago Press.
- Pfeffer, Jeffrey
1983 "Organizational demography." In *Research in Organizational Behavior*, Larry L. Cummings and Barry M. Staw, eds., 299–357. Greenwich, CT: JAI.
- Pfeffer, Jeffrey and Gerald R. Salancik
1978 *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper and Row.
- Salancik, Gerald R. and Jeffrey Pfeffer
1978 "Uncertainty, secrecy and the choice of similar others." *Social Psychology* 41:246–255.
- Smith, Ryan A.
1999 "Racial differences in access to hierarchical authority: An analysis of change over time, 1972–1994." *The Sociological Quarterly* 40, 3:367–395.
- Tajfel, Henri
1982 *Social Identity and Intergroup Relations*. Cambridge, UK: Cambridge University Press.
- Tajfel, Henri and Joseph P. Forgas
1981 "Social categorization: Cognitions, values and groups." In *Social Cognition: Perspectives on Everyday Understanding*, Joseph Forgas, ed., 113–140. New York: Academic Press.
- Tomaskovic-Devey, Donald
1993a *Gender and Racial Inequality: The Sources and Consequences of Job Segregation*. Ithaca, NY: ILR Press.
- Tomaskovic-Devey, Donald
1993b "The gender and race composition of jobs and the male/female, white/black pay gaps." *Social Forces* 72, 1:45–76.
- Tsui, Anne S. and Terri D. Egan
1994 "Performance implications of relational demography in vertical dyads." Paper presented at the annual meeting of the National Academy of Management, August, Dallas, Texas.
- Tsui, Anne S., Terri D. Egan, and Charles A. O'Reilly
1992 "Being different: Relational demography and organizational attachment." *Administrative Science Quarterly* 37:549–579.
- Tsui, Anne S. and Charles A. O'Reilly
1989 "Beyond simple demographic effects: The importance of relational demography in superior-subordinate dyads." *Academy of Management Journal* 32:402–423.
- Tsui, Anne S., Katherine R. Xin, and Terri D. Egan
1995 "Relational demography: The missing link in vertical dyad linkage." In *Diversity in Work Teams: Research Paradigms for a Changing Workplace*, Susan E. Jackson and Marian N. Ruderman, eds., 97–129. Washington, DC: American Psychological Association.
- United States Bureau of Labor Statistics
1998 *Employment and Earnings Monthly*, September 30. Washington, DC: GPO.
- Villemez, Wayne J. and William P. Bridges
1988 "When bigger is better: Differences in the individual-level effect of firm and establishment size." *American Sociological Review* 53:237–255.
- Wagner, W. G., Jeffrey Pfeffer, and Charles A. O'Reilly
1984 "Organizational demography and turnover in top management groups." *Administrative Science Quarterly* 29:74–92.

Weber, Max

- 1968 *Economy and Society: An Outline of Interpretative Sociology*. Translated and edited by Guenther Roth and Claus Wittich, 3 volumes. New York: Bedminster.

Williams, K. Y. and Charles A. O'Reilly

- 1998 "Demography and diversity in organizations: A review of 40 years of research." *Research in Organizational Behavior* 20:77-140.

Wilson, George, Ian Sakura-Lemessy, and Jonathan P. West

- 1999 "Reaching the top: Racial differences in mobility paths to upper-tier occupations." *Work and Occupations* 26:165-186.

Wilson, George

- 1997 "Pathways to power: Racial differences in the determinants of job authority." *Social Problems* 44:38-54.