

as likely to experience discrimination as Hispanic females. But, surprisingly, in the black/white tests, black females were three times as likely to encounter discrimination as black males. The racial results for women in this particular audit stand in sharp contrast with the results in the statistical studies described above.

The most severe criticisms of the audit technique have come from Heckman and Siegelman (1993). At base, their central worry is that testers cannot be paired in such a way that they will not signal a difference that legitimately can be interpreted by the prospective employer as a difference in potential to perform the job, despite interview training and doctored résumés.¹⁰ For example, what about intangibles like a person's ability to make a first impression or the fact that certain résumés may be unintentionally superior to others?

In an audit study consciously designed to address many of the Heckman and Siegelman (1993) methodological complaints, Neumark, Bank, and Van Nort (1995) examined sex discrimination in restaurant hiring practices. Four testers (all college students, two men and two women) applied for jobs waiting tables at 65 restaurants in Philadelphia. The restaurants were separated into high, medium, and low price, according to average cost of a meal. Waiters at the high price restaurants tend to receive greater wages and tips than their counterparts in low price restaurants; specifically, the authors find that average hourly earnings for waiters were 47 and 68 percent higher in the high price restaurant than the medium and low price restaurant, respectively. One man and one woman applied for a job at each restaurant, so there were 130 attempts to obtain employment. Thirty-nine job offers were received.

One interesting twist to this methodology is that three reasonably comparable résumés were constructed, and over a three-week period each tester used a different résumé for a period of one week. This résumé-switching mitigates any differences that may have occurred because one résumé was better than another. To reduce other sources of unobserved ability—for example, the ability to make a good first impression—the testers were instructed to give their applications to the first employee they encountered when visiting a restaurant. That employee was then asked to forward the résumé to the manager. In effect, personality and appearance were eliminated as relevant variables for the interview decision, if not for the job offer decision.

Neumark et al. (1995) find that in the low-priced restaurants, the man received an offer while the woman did not 29 percent of the time. A woman never received an offer when the man did not. In the high-priced restaurants, the man received an offer while the woman did not in 43 percent of the tests, while the woman received an offer while the man did not in just 4 percent of the tests. Also, at high-priced restaurants, women had roughly a 40 percent lower probability of being interviewed and 50 percent lower probability of obtaining a job offer, and this difference is statistically significant. Hence, this audit study shows that within-occupation employment discrimination may be a contributing source to wage discrimination between men and women....

THE THEORETICAL BACKDROP

Standard neoclassical competitive models are forced by their own assumptions to the conclusion that discrimi-

nation only can be temporary. Perhaps the best-known statement of this position emerges from Becker's (1957) famous "taste for discrimination" model. If two groups share similar productivity profiles under competitive conditions where at least some employers prefer profits to prejudice, eventually all workers must be paid the same wage. The eventual result may involve segregated workforces—say, with some businesses hiring only white men and others hiring only black women—but as long as both groups have the same average productivity, they will receive the same pay. Thus, in this view, discrimination only can produce temporary racial or gender earnings gaps. Moreover, alternative forms of discrimination are separable processes; wage discrimination and employment segregation are unrelated in Becker's model.

Despite the theoretical implications of standard neoclassical competitive models, we have considerable evidence that it took the Civil Rights Act of 1964 to alter the discriminatory climate in America. It did not, by any means, eliminate either form of discrimination. Indeed, the impact of the law itself may have been temporary, since there is some evidence that the trend toward racial inequality came to a halt in the mid-1970s (even though interracial differences in human capital were continuing to close) and the momentum toward gender equality may have begun to lose steam in the early 1990s. Moreover, we believe that the forms of discrimination have altered in response to the act. Therefore, it is not useful to argue that either racial or gender discrimination is inconsistent with the operation of competitive markets, especially when it has taken antidiscrimination laws to reduce the impact of dis-

crimination in the market. Instead, it is beneficial to uncover the market mechanisms which permit or encourage discriminatory practices.

Since Becker's work, orthodox microeconomics has been massaged in various ways to produce stories of how discrimination might sustain itself against pressures of the competitive market. The tacit assumption of these approaches has been to find a way in which discrimination can increase business profits, or to identify conditions where choosing not to discriminate might reduce profits.

In the customer discrimination story, for example, businesses discriminate not because they themselves are bigoted but because their clients are bigoted. This story works especially well where the product in question must be delivered via face-to-face contact, but it obviously does not work well when the hands that made the product are not visible to the customer possessing the "taste for discrimination." Moreover, as Madden (1975, p. 150) has pointed out, sex-typing of jobs can work in both directions: "While service occupations are more contact-oriented, sexual preference can work both ways: for example, women are preferred as Playboy bunnies, airline stewardesses, and lingerie salespeople, while men seem to be preferred as tire salespeople, stockbrokers, and truck drivers."

Obviously, group-typing of employment will lead to a different occupational distributions between group A and B, but will it lead to different earnings as well? Madden (1975, p. 150, emphasis in original) suggests not necessarily:

... consumer discrimination causes occupational segregation rather than wage differentials. If the female wage de-

creases as the amount of consumer contact required by a job increases, women seek employment in jobs where consumer contact is minimal and wages are higher. Only if there are not enough non-consumer contact jobs for working women, forcing them to seek employment in consumer-contact jobs, would consumer discrimination be responsible for wage differentials. Since most jobs do not require consumer contact, consumer discrimination would segregate women into these jobs, but not *cause* wage differentials.

Perhaps the best attempt to explain how discrimination might persist in a neoclassical framework is the statistical discrimination story, which, at base, is a story about imperfect information. The notion is that potential employers cannot observe everything they wish to know about job candidates, and in this environment, they have an incentive to seize group membership as a signal that allows them to improve their predictions of a prospective candidate's ability to perform.

However, this model of prejudicial beliefs does not ultimately wash well as a theory of why discrimination should be long-lasting. If average group differences are perceived but not real, then employers should *learn* that their beliefs are mistaken. If average group differences are real, then in a world with antidiscrimination laws, employers are likely to find methods of predicting the future performance of potential employees with sufficient accuracy that there is no need to use the additional "signal" of race or gender. It seems implausible that with all the resources that corporations put into hiring decisions, the remaining differentials are due to an inability to come up with a suit-

able set of questions or qualifications for potential employees.

Moreover, models of imperfect competition as explanations of discrimination do not solve the problem completely either. The reason for the immutability of the imperfection is rarely satisfactorily explained—and often not addressed at all—in models of this type (Darity and Williams, 1985). Struggle as it may, orthodox microeconomics keeps returning to the position that sustained observed differences in economic outcomes between groups must be due to an induced or inherent deficiency in the group that experiences the inferior outcomes. In the jargon, this is referred to as a deficiency in human capital. Sometimes this deficiency is associated with poor schooling opportunities, other times with culture (Sowell, 1981).¹¹ But the thrust of the argument is to absolve market processes, at least in a putative long run, of a role in producing the differential outcome; the induced or inherent deficiency occurs in pre-market or extra-market processes.

Certainly years of schooling, quality of education, years of work experiences and even culture can have a role in explaining racial and gender earnings differences. However, the evidence marshaled above indicates that these factors do not come close to explaining wage differentials and employment patterns observed in the economy. Instead, discrimination has been sustained both in the United States and elsewhere, for generations at a time. Such discrimination does not always even need direct legal support nor has it been eliminated by market pressures. Instead, changes in social and legal institutions have been needed to reduce it.

James Heckman (1997, p. 406) draws a similar conclusion in his examination of a

specific sector of employment, the textile industry:

... substantial growth in Southern manufacturing had little effect on the labor-market position of blacks in Southern textiles prior to 1965. Through tight and slack labor markets, the proportion of blacks was small and stable. After 1964, and in synchronization with the 1964 Civil Rights Act, black economic progress was rapid. Only South Carolina had a Jim Crow law prohibiting employment of blacks as textile workers, and the law was never used after the 1920s. Yet the pattern of exclusion of blacks was prevalent throughout Southern textiles, and the breakthrough in black employment in the industry came in all states at the same time. Informally enforced codes and private practices, and not formally enforced apartheid, kept segregation in place, and market forces did not break them down.

Nontraditional alternatives to orthodox microeconomic analysis can lead to a logically consistent basis for a persistent gap in wage outcomes. These alternatives typically break down the line between in-market and pre-market discrimination so often drawn in conventional economics. The first of these involves a self-fulfilling prophecy mechanism. Suppose employers believe that members of group A are more productive than members of group B on average. Suppose further that they act upon their beliefs, thereby exhibiting a stronger demand for A workers, hiring them more frequently and paying them more.

Next, suppose that members of group B become less motivated and less emotionally healthy as a consequence of the employment rebuff. Notice that the original decision not to hire may have been completely unjustified on productivity

grounds; nonetheless, the decision made in the labor market—a decision not to hire or to hire at low pay—alters the human capital characteristics of the members of group B so that they become inferior candidates for jobs. The employers' initially held mistaken beliefs become realized over time as a consequence of the employers' initial discriminatory decisions. As Elmslie and Sedo (1996, p. 474) observe in their development of this argument, "One initial bout of unemployment that is not productivity based can lay the foundation for continued future unemployment and persistently lower job status even if no future discrimination occurs."

More broadly, depressed expectations of employment opportunities also can have an adverse effect on members of group B's inclination to acquire additional human capital—say, through additional schooling or training. The effects of the past could be passed along by the disadvantaged group from generation to generation, another possibility ignored by orthodox theory. For example, Borjas (1994) writes of the ethnic intergenerational transmission of economic advantage or disadvantage. He makes no mention of discrimination in his work but a potential interpretation is that the effects of past discrimination, both negative and positive, are passed on to subsequent generations. Other evidence along these lines includes Tyree's (1991) findings on the relationship between an ethnic group's status and performance in the past and the present, and Darity's (1989) development of "the lateral mobility" hypothesis based upon ethnic group case histories.

More narrowly, the group-typed beliefs held by employers/selectors also can have a strong effect on the performance

Inferiority
threat

of the candidate at the interview stage. In an experiment performed in the early 1970s, psychologists Word, Zanna and Cooper (1974, pp. 109-120) found that when interviewed by "naïve" whites, trained black applicants "received (a) less immediacy, (b) higher rates of speech error, and (c) shorter amounts of interview time" than white applicants. They then trained white interviewers to replicate the behavior received by the black applicants in the first phase of their experiment, and found that "naïve" white candidates performed poorly during interviews when they were "treated like blacks." Such self-fulfilling prophecies are familiar in the psychology literature (Sibicky and Dovidio, 1986).

A second nontraditional theory that can lead to a permanent gap in intergroup outcomes is the noncompeting groups hypothesis advanced by the late W. Arthur Lewis (1979). Related arguments emerge from Krueger's (1963) extension of the tradé-based version of the Becker model, Swinton's (1978) "labor force competition" model for racial differences, and Madden's (1975) male monopoly model for gender differences, but Lewis's presentation is the most straightforward. Lewis starts with an intergroup rivalry for the preferred positions in a hierarchical occupational structure. Say that group A is able to control access to the preferred positions by influencing the required credentials, manipulating opportunities to obtain the credentials, and serving a gatekeeping function over entry and promotion along job ladders. Group B is then rendered "noncompeting."

One theoretical difficulty with this argument that its proponents rarely address is that it requires group A to maintain group solidarity even when

it may have subgroups with differing interests. In Krueger's (1963) model, for example, white capitalists must value racial group solidarity sufficiently to accept a lower return on their capital as the price they pay for a generally higher level of income for all whites (and higher wages for white workers). In Madden's (1975) model, male capitalists must make a similar decision on behalf of male workers.

This noncompeting group hypothesis blurs the orthodox distinction between in-market and pre-market discrimination, by inserting matters of power and social control directly into the analysis. This approach then links discrimination to racism or sexism, rather than to simple bigotry or prejudice. It leads to the proposition that discrimination—in the sense of differential treatment of those members of each group with similar productivity-linked characteristics—is an endogenous phenomenon. "In-market" discrimination need only occur when all the earlier attempts to control access to jobs, credentials, and qualifications are quavering.

One interesting implication here is that growth in skills for what we have been calling group B, the disadvantaged group, may be accompanied by a surge of in-market discrimination, because that form of discrimination has become more necessary to preserve the position of group A. There are several instances of cross-national evidence to support this notion. Darity, Dietrich and Guilkey (1997) find that while black males were making dramatic strides in acquiring literacy between 1880 and 1910 in the United States, simultaneously they were suffering increasing proportionate losses in occupational status due to disadvantageous treatment of their measured characteristics. Geographer Peggy Lovell

(1993) finds very little evidence of discrimination in earnings against blacks in northern Brazil, where blacks are more numerous, but substantial evidence of discrimination against them in southern Brazil. Northern Brazil is considerably poorer than southern Brazil and the educational levels of northern black Brazilians are more depressed than in the south.¹² It is easy to argue that the exercise of discrimination is not "needed" in the north, since blacks are not generally going to compete with whites for the same sets of jobs. Indeed, there is relatively more evidence of discrimination against mulattos than blacks, the former more likely to compete directly with whites for employment. A third example, in a study using data for males based upon a survey taken in Delhi in 1970, Desi and Singh (1989) find that the most dramatic instance of discriminatory differentials in earnings was evident for Sikh men vis-à-vis Hindu high caste men. On the other hand, most of the earnings gap for Hindu middle caste, lower caste and scheduled caste men was due to inferior observed characteristics. Since these latter groups could be excluded from preferred positions because of an inadequate educational background, it would not be necessary for the upper castes to exercise discrimination against them. Sikh males, on the other hand, possessed the types of credentials that would make them viable contestants for the positions desired by the Hindu higher castes.

A final alternative approach at construction of a consistent economic theory of persistent discrimination evolves from a reconsideration of the neoclassical theory of competition. Darity and Williams (1985) argued that replacement of neoclassical competition with either classical or Marxist approaches to com-

petition—where competition is defined by a tendency toward equalization of rates of profit and where monopoly positions are the consequence of competition rather than the antithesis of competition—eliminates the anomalies associated with the orthodox approach (Botwinick, 1993; Mason, 1995, forthcoming-b). A labor market implication of this approach is that wage diversity, different pay across firms and industries for workers within the same occupation, is the norm for competitive labor markets. In these models, remuneration is a function of the characteristics of the individual and the job. The racial-gender composition of the job affects worker bargaining power and thereby wage differentials. In turn, race and gender exclusion are used to make some workers less competitive for the higher paying positions. This approach emphasizes that the major elements for the persistence of discrimination are racial or gender differences in the access to better paying jobs within and between occupations.

Whatever alternative approach is preferred, the strong evidence of the persistence of discrimination in labor markets calls into question any theoretical apparatus that implies that the discrimination must inevitably diminish or disappear. ✓

NOTES

1. The only significant exception to the help-wanted ads pattern of maintaining a fairly strict sexual division of labor that we could detect was evident in the *Los Angeles Times* employment section of early January 1945, where we found women being sought as aircraft riveters, assemblers, and army photographers. Of course, World War II was ongoing at that stage, and the comparative absence of men produced the "Rosie the Riveter" phenomenon. However, despite wartime conditions, even this temporary breakdown in gender-typing of occupations was not evident in the help-wanted ads for the *Chicago Tribune*, the *New York Times*, or the

Washington Post at the same time. Moreover, racial preferences also remained strongly pronounced in wartime advertisements of each of the four newspapers.

2. The C.W. Agency, advertising in the *Los Angeles Times* on January, 1, 1950, wanted a "Girl Model 38 bust, 25 waist, 36 hips"; "Several Other Types" with physical characteristics unspecified in the advertisement apparently also were acceptable.

3. The 1980 and 1990 Censuses provide only self-reported information on interviewees' race and their ancestry, which makes it possible to partition the American population into 50 different detailed ethnic and racial groups, like Asian Indian ancestry women, Mexican ancestry women, Polish ancestry women, French Canadian ancestry women, and so on. The explanatory variables were years of school, years of college, number of children, married spouse present, years of work experience, years of work experience squared, very good or fluent English, disabled, born in the United States, assimilated (that is either married to a person with a different ethnicity or having claimed two different ethnic groups in the census), location, region, and occupation. Annual earnings was the dependent variable. There was no control for the difference between potential and actual experience; hence, to the extent that the gap between potential and actual experience and the rate of return to actual experience varies by race, the results for the female regressions may be less reliable than the results for the male regression.

4. For a view that unobservable factors might favor black male productivity, thereby meaning that the regression coefficients are underestimating the degree of discrimination, see Mason (forthcoming-a).

5. Indeed, if one uses a measure that, unlike the AFQT, was explicitly designed as a measure of intelligence, it does not explain the black-white gap in wages. Mason (forthcoming-b; 1996) demonstrates this by using in a wage equation an explanatory variable that comes from a sentence completion test given to 1972 respondents to the Panel Study of Income Dynamics (PSID)—a test which was designed to assess "g," so-called general intelligence. Mason finds that the significant, negative sign on the coefficient for

the race variable is unaffected by inclusion of the PSID sentence completion test score as an explanatory variable. Indeed, Mason (1997) finds that although discrimination declined during 1968 to 1973, discrimination grew by 2.0 percent annually during 1973–1991. On the other hand, the rate of return to cognitive skill (IQ) was relatively constant during 1968–1979, but had an annual growth rate of 1.6 percent during 1979–1991.

6. Mason (1997) finds a similar result when age and education-adjusted IQ scores are used.

7. Attention to the psychological measures also provides mild evidence that blacks put forth more effort than whites, a finding consistent with Mason's (forthcoming-a) speculation that there may be unobservables that favor black productivity. Mason argues that effort or motivation is a productivity-linked variable that favors blacks, based upon his finding that blacks acquire more schooling than whites for a comparable set of resources.

8. Card and Krueger (1992) also directly control for school quality. They find that there is still a substantial wage gap left after controlling for school quality.

9. Systematic racial differences in the structural equations for the determination of standardized test scores also are evident in the General Social Survey data. Fitting equations for Wordsum scores separately for blacks and whites also yields statistically distinct structures (White, 1997).

10. Although some of their criticisms along these lines frankly strike us as ridiculous; for example, concerns about facial hair on the Hispanic male testers used by the Urban Institute.

11. To address the effects of culture, following Woodbury (1993), Darity, Guilkey, and Winfrey (1996) held color constant and varied culture by examining outcomes among blacks of differing ancestries. Unlike Sowell's expectation, black males of West Indian and non-West Indian ancestry were being confronted with the same racial penalty in U.S. labor markets by 1990.

12. The portion of the gap that can be explained by discrimination is much lower in the high black region of Brazil, the Northeast, than the rest of Brazil. We know of no evidence which suggests that this is or is not true for the U.S. south.