

Book Reviews

Discrimination in Labor Markets. Edited by ORLEY ASHENFELTER and ALBERT REES. Princeton, N.J.: Princeton University Press, 1973. Pp. xi + 181. \$9.00.

This volume contains five papers originally presented at a conference on discrimination in labor markets, held at Princeton University in October of 1971, along with the formal comments of the conference discussants. It starts with a theoretical piece by Kenneth Arrow: continues with three empirical studies by Finis Welch, Orley Ashenfelter, and Ronald Oaxaca; and concludes with a paper on government policy by Phyllis Wallace. The papers are all nontechnical and designed to appeal to a wide audience of readers. While more technical versions of the first four papers have recently been published in professional journals or other books, the editors have performed a valuable service by collecting the expository versions in one place.

Kenneth Arrow's paper discusses the theoretical foundations of the neoclassical analysis of labor-market discrimination. Arrow elaborates on the pioneering work of Gary Becker and explicitly includes general equilibrium considerations. Several models with employers or employees having "tastes for discrimination" are developed, and the conditions under which wage differentials and/or segregation will occur between groups of equally productive individuals of different races (or sexes) are stated. As pointed out by Melvin Reder in his comments in the volume, these models all assume completely wage-inelastic labor-supply curves, and hence they neglect the possibility of labor-market discrimination also influencing the aggregate group-employment levels.

Arrow concludes his paper by extending the models to consider costs of adjustment and statistical discrimination as possible explanations for why labor-market discrimination persists over time. The later approach depends crucially on the existence of costs to employers of acquiring information on individual applicants' productivity and on employers perceiving that on average different race (or sex) groups vary in their productivity. Arrow shows quite strikingly that even if this perception is incorrect at a point in time, statistical discrimination may lead the "discriminated-against" group in fact to invest relatively less than the other group in increasing their productivities in future periods. This point has been forcefully made also by Michael Spence (1973) in his recent work on job-market signaling.

The next three studies summarize econometric studies of various facets of labor-market discrimination, with each based upon data on individuals taken from the 1967 *Survey of Economic Opportunity (SEO)* and/or the one in 1,000 sample of the 1960 census. Each paper contributes significantly to our knowledge of the subject.

The relationship between education and racial discrimination is considered by Finis Welch in his contribution. Previous econometric studies, based upon cross-section data for a single year, have uniformly found lower rates of return to education for blacks than whites. However, Welch suggests that these studies may be misspecified because they group different cohorts of individuals together and

neglect the substantial increases in the relative "quality" of blacks' education (as compared to whites' education) that have occurred historically. Indeed, using data from both the 1967 *SEO* and the 1960 census together, his estimates indicate that rates of return to education for blacks have risen over time relative to the comparable rates of return for whites. Moreover, for recent cohorts of students, the former may actually exceed the latter.

Orley Ashenfelter seeks in his paper to measure the impact of trade unionism in the American economy on black/white and female/male income differentials. He argues a priori, and his empirical results confirm that industrial unions have raised and craft unions lowered the average wage of black workers relative to that of white workers, as compared to the analogous differential in nonunion labor markets. However, Ashenfelter finds that for the economy as a whole, the impact of unions on income differentials by race and sex is extremely small. He calculates that unions have reduced the overall black/white income differential and the comparable white female/white male income differential by less than 2 percent. That is, trade unions do not appear substantially to have exacerbated the extent of labor-market discrimination that would exist in the absence of unions.

In the final econometric study in the volume, Ronald Oaxaca considers sex discrimination in the labor market. Oaxaca specifies and estimates wage equations for males and females based upon the postschooling investment model of human-capital formation. He shows that even after variables that reflect individuals' productivity and measures of job experience are controlled for, a large component of the observed female/male wage differential remains unexplained and may be attributable to labor-market discrimination. Oaxaca emphasizes, as does Barbara Bergmann in her conference comments and previous research, that occupational barriers that women face are a major source of the observed differential. Furthermore, these same barriers may prevent females from investing as much in on-the-job training as do males.

The volume concludes with a useful paper by Phyllis Wallace that examines public policy toward discrimination by race and sex. Wallace discusses how legal mechanisms have been quantified into operating policies, and, relying upon the limited experience which we have with these policies, suggests alternative strategies. Unfortunately, as Wallace realizes, it is difficult to assess the effectiveness of government policies in the area solely by looking at input variables, such as the number of complaints processed by the Equal Employment Opportunity Commission, as she does. A more analytical approach would be to attempt to relate statistically, *ceteris paribus*, the magnitudes of the policy input variables to desired outcome variables (such as wage rates, employment levels, or occupational mobility of nonwhites and females) which the policies are designed to influence. Recent works by Orley Ashenfelter and James Heckman (forthcoming) using individual establishment data and Richard Freeman (cited in his comments in this volume) using aggregate data are examples of this type of approach and add considerably to our knowledge of the effectiveness of these policies.

In sum, I consider *Discrimination in Labor Markets* a fine volume. Anyone who has the slightest interest in the analysis of labor-market discrimination should seriously contemplate purchasing it. The relatively nontechnical nature of the papers will appeal to a wide range of readers, and the book should quickly find its way onto reading lists for undergraduate and graduate courses that discuss the economics of discrimination.

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References

- Ashenfelter, Orley, and Heckman, James. "Measuring the Effect of an Anti-Discrimination Program." Paper presented at a conference on "Evaluating the Labor Market Effects of Social Programs," Princeton, N.J., May 2, 1974.
- Freeman, Richard. *Black Elite: Education and Labor Market Discrimination*. New York: McGraw-Hill, 1973.
- Spence, Michael. "Job Market Signaling." *Q.J.E.* 87, no. 3 (August 1973): 355-74.