STATISTICAL PROOF OF DISCRIMINATION

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[From *Affirmative Action, An Encyclopedia* (James A. Beckman ed.) Greenwood Press, 2004, 838-40. Reproduced with permission of ABC-CLIO, LLC. Copyright © 2004 by Greenwood Publishing Group, Inc. Substantially more advanced treatments of the issues addressed in this article may be found in my September 20, 2013 University of Kansas School of Law Faculty Workshop Paper "The Mismeasure of Discrimination" and my November 17, 2014 amicus curiae brief filed in *Texas Department of Housing and Community Development, et al. v. The Inclusive Communities Project, Inc*., Supreme Court No. 13-1731. Extensive graphical and tabular illustrations may be found in my January 20, 2014 University of California, Irvine, Center for Demographic and Social Analysis Methods Workshop "The Mismeasure of Discrimination."]

In *Griggs v. Duke Power Co.,* 401 U.S. 424 (1971), when first upholding Title VII's disparate impact theory in a case where employment criteria disqualified black applicants "at a substantially higher rate than white applicants," the Supreme Court took for granted that statistical proof was an essential element of such a case. Six years later, in *International Brotherhood of Teamsters v. United States*, 431 U.S. 395 (1977), the Court also firmly established the validity of statistical evidence to prove intentional discrimination in employment. The Court found that "longstanding and gross disparity between the composition of a work force and that of the general population" could be significant evidence of purposeful discrimination, even though "Title VII imposes no requirement that a work force mirror the general population" The Court cautioned, however, that "statistics are not irrefutable; they come in infinite variety and, like any other kind of evidence, they may be rebutted. In short, their usefulness depends on all the surrounding facts and circumstances."

That same term, in *Hazelwood School Dist. v. United States*, 433 U.S. 299 (1977), the Court introduced the concept of statistical significance into the analysis of statistical evidence in employment discrimination cases. Referencing a formula for calculating the standard deviation from the expected number of selections of the subject group given the group's representation in the candidate pool that the Court had set out in *Castaneda v. Partida*, 430 US. 482 (1977), a jury selection case, the Court concluded that "'if the difference between the expected value and the observed number [of black teacher hires] is greater than two or three standard deviations,' then the hypothesis that teachers were hired without regard to race would be suspect."

The Court next offered guidance on the use of statistics in employment discrimination nine years later in *Bazemore v. Friday*, 478 U.S. 385 (1986). There, the Court overturned an appeals court ruling that regression analyses of salary differences between whites and blacks were "unacceptable evidence of discrimination" because they had failed to include "all measurable variables" thought to affect on salary. The Court concluded that where regression analysis had accounted for the "major factors" affecting salary, the failure to include additional factors would go only to the probative value of the studies, not to their admissibility.

Three years later, the Court again considered statistical issues in the case of *Ward's Cove Packing Co. v. Atonio*, 490 U.S. 642 (1989). Rejecting claims that a prima facie case of disparate impact could be established on the basis that minority cannery works comprised far higher proportions of unskilled jobs than of skilled workers, the Court held that a case of disparate impact could generally be established only by comparing minority representation in the jobs at issue with minority representation in the labor force with the skills for such jobs.

In general, however, these cases have given very limited guidance on the use of statistical evidence. And, though issuing many rulings on the subject, the lower courts have done little to develop a sophisticated jurisprudence in the area. With respect to disparate impact, there is no consensus and limited guidance in lower court decisions on how substantial a disparity must be in order to require that an employer satisfy the burden of showing the job relatedness of the practice causing the impact. At times, courts have looked either to differences in rates of meeting some standard or criterion or to differences in rates of failing to meet the standard. And they have done so without recognition, for example, that the less stringent a standard, the greater will be the disparity in failing to meet the standard and the smaller will be the disparity in meeting the standard. In other words, if a cutoff is lowered on a test on which minorities have lower average scores than whites, racial disparities in failure rates will increase while racial disparities in pass rates will decrease.

With respect to determining whether a particular disparity is caused by intentional discrimination, courts have tended to focus on statistical significance without consideration that the statistical significance of a disparity, being a function of both the size of a disparity and the number of observations, is a poor indicator of whether a disparity is sufficiently large to compel an inference of discrimination. Even when courts have attempted to evaluate the size of a disparity, they have done so without recognition that fair selection in the face of some difference in qualifications will yield disparities of varying sizes depending on the selectivity of the employment process at issue.

The *Wards Cove case,* which concerned the demographic disparity between cannery and non-cannery workers, involved a fundamentally flawed claim founded not on a showing that minorities comprised a smaller proportion of hires into the better (non-cannery) jobs than they comprised of persons seeking such jobs, but on a showing merely that minorities comprised a much higher proportion of cannery hires that non-cannery hires. More commonplace counterparts to such claim may be found in claims in the retail and grocery industries, for example, that women are disproportionately assigned to cashier or salesclerk jobs compared with more remunerative jobs like commission sales. Yet a variety of social and labor-market wide forces lead to the high female representation among persons seeking certain traditionally female jobs, and whether the particular employer excludes women from its better jobs will have little bearing on the matter. Hence, comparison of female representation in an employer's poorer jobs with the female representation in its better jobs is not probative that the employer is excluding women from the better jobs.

The Supreme Court rejected the flawed claim in *Wards Cove,* even terming it "nonsensical." But the Court failed to establish the illegitimacy of so-called "assignment claims" in sufficiently definitive terms. Hence, in the years that followed the *Wards Cove* decision,

large-scale cases in the grocery and retail industrial were pursued on the same theory underlying the claims in the *Wards Cove* case, with several resulting in settlements in excess of $100 million dollars. Thus, much remains to be done in the development of jurisprudence in this area.

See also Disparate Treatment and Disparate Impact; *Griggs v. Duke Power Co.*; Title VII of the Civil Rights Act of 1964; *Wards Cove Packing Co. v. Atonio*; *Yick Wo v. Hopkins*.

FURTHER READING: David C. Baldus and James W.L. Cole, 1980, *Statistical Proof of Discrimination*, Colorado Springs: Shepards-McGraw Hill; Scanlan, James P., 1988, "Illusions of Job Segregation," *Public Interest*, fall, 54-70; Scanlan, James P., 1991, "The Perils of Provocative Statistics," *Public Interest*, winter, 3-15; Scanlan, James P., 1993, "Getting it Straight When Statistics Can Lie," *Legal* Times, June 28, 40-43; Scanlan, James P., 1995, "Multimillion-Dollar Settlements May Cause Employers to Avoid Hiring Women and Minorities for Less Desirable Jobs to Improve the Statistical Picture," *National Law Journal*, March 27, B5.