USING STATISTICS TO MEASURE DIVERSITY COMPLIANCE BY ESTABLISHING DEVIATIONS FROM LABOR MARKET PRACTICES—A MODEL FOR EFFECTIVE AND ECONOMIC REGULATION IN THE GLOBAL COMPUTER AGE

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Editorial assistance of Fredrica Wechsler is appreciated.

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“If you can’t measure it, you can’t manage it”  Peter Drucker

“If the legislature cannot govern because administration cannot implement, the legislative process itself is called into question. .... A study of the law transmission system and the results it can achieve in the “real world” is, therefore, a fitting complement to democratic theory. It is not enough that policy be made by the people’s representatives. These policies must generate a real world change, or else the edifice of democratic government, painfully shaped over centuries, may be found flawed at the foundation.”

This introduction to MODERN LAW-THE LAW TRANSMISSION SYSTEM AND EQUAL EMPLOYMENT OPPORTUNITY reflected nearly thirty years of experience with administration of race, ethnic and sex job discrimination laws in the United States. 2 While the United States lags other countries in some social programs, we have had more experience in seriously addressing racial, ethnic and sex job discrimination than most other nations. In the 2008 Presidential election, the candidates of both major parties included two women, and two males, one black one white-- a unique demonstration of American acceptance of equal opportunity principles.

In the hope that the US experience may be of use in the ILO study of regulating for decent work, this paper will focus on the use of statistics both in broad issues of “systemic” or “patterns” of job discrimination and in resolving individual worker’s claims. The inclusion of this issue in the ILO conference on

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2 Alfred W. Blumrosen, MODERN LAW: THE LAW TRANSMISSION SYSTEM AND EQUAL EMPLOYMENT OPPORTUNITY, 14 (University of Wisconsin Press, 1993), hereafter cited as MODERN LAW
Regulating for Decent Work is particularly fitting in light of the World Bank’s memorandum of April 17, 2009 assuring a sharper focus on the “letter and spirit of the relevant ILO protections.”

While the US does not have a system, such as exists in India and some other nations, requiring the employment of a specific proportion of workers from disadvantaged groups, we do have programs that address “patterns or practices” of “systemic” discrimination. Remedies for this type of discrimination include increasing employment opportunities for members of excluded groups to the level that would have been reached if there had been no discrimination. 3 These proceedings have often been conducted without statistical support that could reduce costs and increase efficiency and effectiveness.

1 Use of Statistics in connection with systemic discrimination.

The Civil Rights Act of 1964 authorized the Equal Employment Opportunity Commission to require all but small employers to collect data, keep records and submit reports “reasonable, necessary, or appropriate for the enforcement of this Title or regulations or orders there under.”4

Since 1966, the Federal Government has required the filing of reports containing the information discussed below. In the early years after 1966, the statistics demonstrated that many major employers were on “zero lists” with

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3 Sheet Metal Workers Local 28 v. EEOC, 478 US 421 (1986).
4 Section 709 © of Title VII of the Civil Rights Act of 1964. The EEOC issued reporting requirements in 1966. The Labor Department has identical regulations covering government contractors. Employer reports are filed with a joint reporting committee of EEOC and the Office of Federal Contract Compliance Programs in the Labor Department.
respect to minorities and women in some occupational categories. But these statistics have not been put to their best use. Reports in later years demonstrated considerable improvement. During 1978-79 and in 1995 US Equal Employment Opportunity Commission and the Department of Labor sought to develop programs to address “systemic” or “institutional” discrimination in private industry.

1995 was called the “year of the angry white male.” Affirmative action in employment was under severe public attack. Ultimately, President Clinton found his way through these assaults proposing to “mend it, not end it.” The senior author was asked by the Labor Department to recommend programs to respond to

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6 The EEOC, an independent federal agency, and the OFCCP, a unit of the Labor Department have undertaken programs to address systemic discrimination where some excellent results have been obtained, but neither agency has steadily pursued the issue. In 1978, Congresswoman Eleanor Holmes Norton, then Chair of the EEOC, proposed a “systemic discrimination program based on a statistical analysis, Modern Law, 174-176. The EEOC has made several starts at a systemic program, but the thousands of individual complaints received each year consume most of its time and resources.

In 1995, Assistant Secretary of Labor Bernard Anderson and Deputy Assistant Secretary Shirley Wilshire proposed to expand an OFCCP program to address government contractors discussed in the text. The OFCCP has used a statistical analysis of contractor reports in a program (EEDS) that only considered compared performance of government contractors, rather than employment in the labor market, thus limiting its effectiveness. In 1998-2000, EEOC Chair Ida Castro and her deputy Emily Heller facilitated the use of “sanitized” computerized data to enable the research project described in this paper, and introduced procedures for their use in processing individual cases.

7 MODERN LAW, note 2 at, 289-317.

these attacks. Among the recommendations was that the Labor Department utilize annual reports on the race-sex-national origin of employees filed by all but small employers, to identify intentional discriminators, where remedies including affirmative action programs would be clearly legal under existing law. The Department successfully devised and tested a computerized program in one large metropolitan area. But, for budgetary and other reasons, the Department chose not to proceed with further development of the proposed program at that time.

The Ford Foundation in 1998 gave a significant grant to Rutgers Law School, to develop a computer program that could perform such an analysis on a nationwide basis, including studies of individual states. The EEOC provided a sanitized computerized record of annual reports by employers. By 2000 the program had been perfected, and both EEOC and the Labor Department were prepared to adopt it as their operating procedure for identifying the extent of intentional job discrimination. In 2002, Alfred and his late wife Ruth Blumrosen completed a report based on the sanitized annual reports filed between 1975 and 1999. The report is entitled THE REALITIES OF INTENTIONAL JOB DISCRIMINATION IN METROPOLITAN AMERICA-1999. That report, here after referred to as REALITIES, along with 40 state reports are available at eeo1.com.

After the 2000 presidential election, the EEOC changed its position and refused to provide current or future data. The program was not put into effect during the Bush administration. 2001-2009. 10 The Obama administration has been informed of the program.

The theory of the program proposed under the Ford Foundation Grant and nearly adopted by the end of the Clinton Administration is explained in Chapter 2 of REALITIES as follows:\textsuperscript{11}

“We compare each establishment with the average employment of minorities and women by other establishments that draw from the same labor market, in the same industry and for the same occupations. This average is not fair or neutral because discriminating establishments are part of the average against which all are measured. This average or benchmark is a fact, not a theory or quota. Establishments that are far below the average utilization of Minorities or Women are presumed by law to be intentional discriminators.

\textit{The Basic Methodology of This Study}

“Employment is driven by the technological requirements of industry. Therefore employers in the same industry and labor market are similarly situated with respect to both technological requirements and the labor markets in which they operate. Labor markets function differently depending on the occupations and industries involved. By identifying the average employment of Minorities and Women within an industry, a labor market and occupation, we are able to identify establishments that have so severely restricted or excluded Minorities and Women that, compared to other employers, they stick out like sore thumbs.

“We have analyzed this data covering the period 1975 - 1999 using the statistical analysis of intentional job discrimination approved by the Supreme Court. The Supreme Court viewed such discrimination as the ‘most obvious evil’ that the Civil Rights Acts were designed to address.\textsuperscript{12} The Court has

\begin{itemize}
\item Editorial liberties have been taken with the REALITIES report.
\item Teamsters v. United States, 431 US at 324, 335, n. 15 (1977). Both Congress and the Supreme Court expected that increased employment opportunities for minorities and women would result from ending discrimination. “When the color blind model was passed into law [in the 1964 Civil Rights Act], it was done with the belief or expectation that freedom from discrimination would bring about black equality – comparable statistical rates of black and white employment and unemployment. Congressional documents reflect this expectation.” John David Skrentny, THE IRONIES OF AFFIRMATIVE ACTION: POLITICS, CULTURE, AND JUSTICE IN AMERICA, p.15 (1996). When courts were shown that minorities and women were restricted beyond the point
\end{itemize}
explained that: ‘[a statistical] imbalance is often a telltale sign of purposeful discrimination.... In many cases the only available avenue of proof is the use of racial statistics to uncover clandestine and covert discrimination...’

‘The methodology used in this Study was foreshadowed by Justice O’Connor of the Supreme Court. Justice O’Connor’s opinion, made clear that ‘The employer supplies only one half of the relevant figures – its own employment statistics. EEOC supplies the other half – overall statistics for the employment market from which the employer draws. *It is only in a comparison between these two sets of figures that a pattern of discrimination becomes apparent.*’ [Emphasis added]

“This study makes the comparisons that Justice O’Connor found important, using the EEO-1 reports to compare each individual employer to other employers in the same labor market and industry with respect to the same occupational category. By comparing establishments by industry, the breadth of occupational categories is reduced. ‘Professionals’ is a broad term, but in the accounting industry, professionals are likely to be accountants, while in the legal service industry professionals are likely to be lawyers. The identity of the industry clarifies the requirements of the occupation.

*The “Sore Thumb” Analysis Describes Reality – It is not a “Fair,” “Neutral,” or “Non-discriminatory” Approach.*

“We compare only those establishments that are in the same labor market, and the same industry, with respect to the same occupational category. To be compared, an establishment must have at least 20 employees in the occupational category, there must be two other similar establishments with at least 20 employees, and there must be at least 120 workers in the same industry, labor market and occupation. When these conditions are met, we compare each such establishment with the average (mean) utilization of minorities and/or women in

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15 See Ch 4. And the Technical Appendix for further criteria for identification of establishments.
the entire industry, labor market and occupation. When an establishment falls far below this average, it will stick out like a ‘sore thumb.’ At this point, the law will presume that intentional discrimination was responsible, leaving it to the employer to show otherwise.

The Supreme Court in 1977 explained that to identify the point where the ‘sore thumb’ has formal legal consequences, that point is realized when an establishment is at least two standard deviations below the average. At that point, a presumption of discrimination arises requiring the establishment to show either that the statistics is wrong, or that there is a non-discriminatory reason that fully explains the statistics.\textsuperscript{16}

\textbf{Sore Thumb Example: Percent Females among Sales Employees Security Dealers and Brokers in the Seattle Metropolitan Area, 1997}

<table>
<thead>
<tr>
<th>Number of Establishments</th>
<th>Percent of Employees in Each Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Sore thumb</td>
</tr>
<tr>
<td></td>
<td>* 20 is the Average (Mean) due to size variations of establishments</td>
</tr>
</tbody>
</table>

“This average becomes the standard against which establishments are measured for their utilization of minorities and women. The average is not used because it is ‘fair’ or ‘non discriminatory.’ It is neither. For that reason, it cannot be used to presume that employers who are above the average are either ‘non discriminatory’ or are engaged in ‘reverse discrimination’ against Whites and Males.\(^\text{17}\) It measures only what similar employers actually do within a labor market that is shared by others in the same industry for the same kind of jobs.”

**HOW THE STATISTICAL ANALYSIS CAN BE USED\(^\text{18}\)**

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\(^{17}\) See REALITIES, Ch. 17.

\(^{18}\) The ILO has long been involved in promoting the uses of statistical analysis in promoting decent working conditions. See World of Work Magazine No. 50, March 2004 [pdf 2789 KB]: “Statistics Conference adopts new resolutions, discusses decent work measurement.”
A few general propositions have emerged from the American experience that are useful to our discussion of how this program could be used by other countries to further policies of the International Labor Organization, and the internal policies of nations everywhere. One objective is to improve the efficiency and reduce the human and financial costs in implementing national policies against race, sex and ethnic discrimination in the workplace.

1. Job discrimination is based on an employer’s observation of the appearance, behavior and speech of the applicant or employee. The genetic or personal history of the worker is irrelevant; appearance and presentation by the worker triggers the anti-social attitudes that lead to denial of employment opportunities. In the US there have been efforts to incorporate employer data into the operation of our decennial census; in France, there has been a suggestion that the right of privacy may preclude the collection of racial or ethnic data concerning employees. When the data sought is only that which the worker presents to the public, it is difficult to understand how a right of privacy exists.

In the decade before the civil Rights Act in the United States, civil rights organizations sought to deter employers from keeping records of the race/sex/ethnicity of applicants or employees on the assumption that without such records, employment discrimination would decline. For obvious reasons, the absence of such records did not deter those who would discriminate. The original Commissioners of the EEOC persuaded these organizations of the necessity of collecting statistics on race, sex, and ethnicity of employees. In a variety of ways, not always efficient, affirmative action taken by private employers has improved opportunities for eight million minorities and women between 1975 and 1999, the last year for which we were able to analyze the data. In the employment field, as

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19 The French Conseil Constitutionnel (highest court on constitutional matters) held on November 15, 2007, in dicta, that “Although the processing of data necessary for carrying out studies regarding the diversity of origin of peoples, discrimination and integration may be done in an objective manner, such processing cannot, without infringing the principle laid down in Article 1 of the Constitution, be based on ethnicity or race.” This has been widely understood as limiting the collection of race and ethnic origin data for all purposes, including in connection with any systemic enforcement of existing anti-discrimination laws. As a result, the new French government agency is a relatively toothless entity when it comes to developing any systemic anti-discrimination program.

20 REALITIES, Ch. 1, p.2
elsewhere, statistical analysis provides a way through the ideological thicket surrounding discrimination issues.\textsuperscript{21}

2. Who should determine the race of individual workers in order to prepare an annual report? Initially, the EEOC took the position that the employer was free to make the determination. In the first year of the reporting system, 1966, an employer in the south east asked Charles Markham, director of the program, to explain how he should determine if an employee was a “negro.” Markham responded that the employer should use the same criteria by which he had decided that a worker should be placed in a “negro” job

3. The EEOC has encouraged employers to allow or require their employees to identify themselves, perhaps by checking a box on an employment application. This practice may create internal difficulties for employers. Some workers may fear that the employer will prefer minorities/women in order to comply with the law. We believe that the employer should be able to choose the method used to identify workers.

The US census allows people to identify themselves as being of multiple races or ethnic groups. The proportion of workers identifying themselves as of multiple backgrounds has been small. The question to address employment discrimination should be, “in what race, ethnic, or sex” category is the worker viewed in the community?

4. The annual report should be as simple as possible. The form use by the Federal Government until recently looked like this:

\textsuperscript{21} Id at Chapter 3, pp. 14-28
### Section D—Employment Data

Employment at this establishment—Report all permanent full-time and part-time employees including apprentices and on-the-job trainees unless specifically excluded as set forth in the instructions. Enter the appropriate figures on all lines and in all columns. Blank spaces will be considered as zeros.

<table>
<thead>
<tr>
<th>JOB CATEGORIES</th>
<th>NUMBER OF EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MILE</td>
</tr>
<tr>
<td></td>
<td>FEMALE</td>
</tr>
<tr>
<td></td>
<td>OVERALL (SUM OF COL B COL K)</td>
</tr>
<tr>
<td></td>
<td>WHITE (NOT OF HISPANIC ORIGIN)</td>
</tr>
<tr>
<td></td>
<td>BLACK (NOT OF HISPANIC ORIGIN)</td>
</tr>
<tr>
<td></td>
<td>HISPANIC</td>
</tr>
<tr>
<td></td>
<td>ASIAN OR PACIFIC ISLANDER</td>
</tr>
<tr>
<td></td>
<td>AMERICAN INDIAN OR ALASKAN NATIVE</td>
</tr>
<tr>
<td></td>
<td>WHITE (NOT OF HISPANIC ORIGIN)</td>
</tr>
<tr>
<td></td>
<td>BLACK (NOT OF HISPANIC ORIGIN)</td>
</tr>
<tr>
<td></td>
<td>HISPANIC</td>
</tr>
<tr>
<td></td>
<td>ASIAN OR PACIFIC ISLANDER</td>
</tr>
<tr>
<td></td>
<td>AMERICAN INDIAN OR ALASKAN NATIVE</td>
</tr>
<tr>
<td>Officials and Managers</td>
<td>1</td>
</tr>
<tr>
<td>Professionals</td>
<td>2</td>
</tr>
<tr>
<td>Technicians</td>
<td>3</td>
</tr>
<tr>
<td>Sales Workers</td>
<td>4</td>
</tr>
<tr>
<td>Office and Clinical</td>
<td>5</td>
</tr>
<tr>
<td>Craft Workers (Skilled)</td>
<td>6</td>
</tr>
<tr>
<td>Operatives (Semi-Skilled)</td>
<td>7</td>
</tr>
<tr>
<td>Laborers (Unskilled)</td>
<td>8</td>
</tr>
<tr>
<td>Service Workers</td>
<td>9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>10</td>
</tr>
</tbody>
</table>

NOTE: Omit questions 1 and 2 on the Consolidated Report.

1. Date(s) of payroll period used: 
2. Does this establishment employ apprentices?
   1 □ Yes  2 □ No

### Section E—Establishment Information (Omit on the Consolidated Report)

1. What is the major activity of this establishment? (Be specific, i.e., manufacturing steel castings, retail grocer, wholesale plumbing supplies, title insurance, etc. include the specific type of product or type of service provided, as well as the principal business or industrial activity.)

### Section F—Remarks

Use this item to give any identification data appearing on last report which differs from that given above, explain major changes in composition of reporting units and other pertinent information.

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### Section G—Certification (See Instructions G)

Check one

1 □ All reports are accurate and were prepared in accordance with the instructions (check on consolidated only)  
2 □ This report is accurate and was prepared in accordance with the instructions.

<table>
<thead>
<tr>
<th>Name of Certifying Officer</th>
<th>Title</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of person to contact regarding this report (Type or print)</th>
<th>Address (Number and Street)</th>
<th>City and State</th>
<th>ZIP Code</th>
<th>Telephone Number (including Area Code)</th>
<th>Extension</th>
</tr>
</thead>
</table>

All reports and information obtained from individuals' reports will be kept confidential as required by Section 709(e) of Title VII. WILLFULLY FALSE STATEMENTS ON THIS REPORT ARE PUNISHABLE BY LAW, U.S. CODE, TITLE 18, SECTION 1001.
5. The number of occupational categories may vary with the nature of the economy. The nine categories of the EEO-1 report have recently been increased to fourteen. The reports should be sworn to by the chief executive, and a method of filing electronically should be established if the technology is available. Back up records which contain the names of each employee reported in each box should be retained, possibly in a file separated from the personnel file of the individual.

6. In the United States, roughly 75% of employers required to file did so. We estimated that a high proportion of non-filers were among employers with fewer than 500 employees (National Report Ch. 4) and that 83% of the employers of 1,000 or more employees did report. The sanctions for failure to file a timely report are nominal. Under the Statute, EEOC could bring a federal action to require such filing. More useful would be a statute or regulation that would allow a finder of fact to draw an adverse inference from the employer’s failure to follow the law.

The form should also require the employer to state the location of its operation, and the industry in which it is primarily engaged. Separate forms should be required from each facility of a multi-facility employer.

Once the reporting requirements have been in effect, the government should analyze them in the manner described in REALITIES. It should then begin to use them by advising employers who were more than 2 standard deviations below the mean of their situation, and also provide an opportunity to take affirmative action to reach the average utilization in a reasonable time.

DISCOVERING DIFFERENT DEGREES OF DISCRIMINATORS.

In preparing the analysis based upon a 2 standard deviation analysis, we found that we could separate those employers who were 1.6 or more deviations below the mean, those that were 2 deviations, and those that were 2.5 deviations, meaning that there was only one in a hundred chances that the result occurred by chance.
Thus we had a measure of the severity of the discrimination. REALITIES explain:\textsuperscript{22}

“Without the combination of statistical analysis and legal standards used in this study, legal analysts have tended to view ‘intentional discrimination’ as one general concept. As we applied statistical analysis to the data, we observed differences in intentional discrimination, depending on the standard deviation analysis, and the length of time severe discrimination could be observed. The greater the standard deviations beyond two, the more persuasive are the case for discrimination.\textsuperscript{23}

“We observed a large number of establishments that were at least 2.5 standard deviations below the mean in 1999, meaning that there was only one chance in 100 that the result occurred by accident. This 1 in 100 chance is far more stringent than the criminal law standard of ‘beyond a reasonable doubt,’ and certainly exceeds the civil law standard for proof that ‘more likely than not’ the claimed discrimination occurred. These establishments accounted for 91\% of the minority affected workers and 90\% of the female affected workers in our study. Furthermore, between 75 and 80\% of those establishments are 3 or more standard deviations below the average, meaning that there is only one chance in 370 that the result occurred by accident.

“More surprising, we observed thousands of establishments that had been 2.5 standard deviations below the mean over a long period of time. The persistence of this discrimination plus the probability that it was indeed intentional suggests that it is deeply ingrained in corporate practice.

“As a result of these observations, this study divides the concept of visible intentional discrimination into four components. They are ‘Hard Core,’ ‘Clearly Visible,’ ‘Presumed,’ and ‘At Risk’ [See REALITIES, Technical Appendix, §1]. The differences are suggested in the following table:

\textsuperscript{22} REALITIES, Ch. 7, p. 54
Table 1. LEGAL EFFECT OF VARIATIONS IN STATISTICAL ANALYSIS

<table>
<thead>
<tr>
<th>Standard Deviations</th>
<th>Probability</th>
<th>Legal Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chance</td>
<td>Not chance</td>
</tr>
<tr>
<td>1.65</td>
<td>1 in 10</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0</td>
<td>1 in 20</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>1 in 100</td>
<td>99%</td>
</tr>
<tr>
<td>2.5 over 9 yrs</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

HARD CORE DISCRIMINATORS.

These establishments not only demonstrate a severe statistical case of current discrimination, but also reflect that this condition has existed over a long period of time. This suggests that the discrimination is persistent and has important support within the corporation. These establishments are so far below average in a particular occupation that there is only one chance in one hundred that the result occurred by accident (2.5 standard deviations), in 1999 and in either 1998 or 1997, and in at least one year between 1991 and 1996, and was not above average between 1991 and 1999. The category includes establishments that far exceed 2.5 standard deviations below the mean for longer than nine years.

These hard core establishments account for 432,958 affected minority workers, or almost exactly half of those we have identified. Hard core establishments also account for 240,908 affected female workers – more than one third of those we have identified.
Determining the remedy for discrimination where employer is 2 or more standard deviations below the mean.\textsuperscript{24}

“Where intentional discrimination appears, as where an establishment is two standard deviations or more below the average utilization in the same labor market, industry and occupation, the law requires relief to individuals injured, and also redress for the loss of employment opportunities to minorities and women. The measure of this loss is the difference between the employment opportunities provided by such an establishment and the average that similarly situated establishments provide. “Affected workers” are the number of minority/female workers who would have been employed, promoted, or retained if the establishment had utilized minorities or women at the average in which they are employed in the local labor market, industry and occupational category. In general, these remedies require the employer to increase the utilization of minorities and women until the effects of the discrimination have been eliminated.\textsuperscript{25} That condition is reached when the employer utilizes minorities/women at the average level of their participation in the work force to which the employer was compared.

“It is not sufficient for an employer to reduce the level of disadvantage of minorities or women so that it is less than two standard deviations below the benchmark; it must approach the benchmark itself. This is to be done while recognizing opportunities for whites/males.\textsuperscript{26} We have applied these principles in order to estimate the extent to which intentional discrimination has deprived minorities/women of employment opportunities. We use the exact numbers that the statistical analysis of the EEO-1 reports produce, recognizing that in the realities of industrial and legal life this kind of precision is difficult to achieve; and that the numbers provide a guide post, not a rigid formula.

\textsuperscript{24} From REALITIES, Chapter 6, §2, pp 49-50
\textsuperscript{25} Sheet Metal Workers Local 28 v. EEOC, 478 US 421 (1986).
“The number of ‘affected workers’ is identified by comparing each establishment with other establishments in the same occupational category in the same industry and labor market. Nationwide, we have comparisons between Minorities and Whites in 106,775 establishments employing 34,084,344 workers including 8,193,331 minorities. We have comparisons between men and women in 108,130 establishments employing 26,553,084 workers including 13,415,559 women. Nationally, putting the extrapolation for non-reporting employers to one side, we identified 1,361,083 affected Minorities and 952,131 affected Women.

The ‘Minority’ analysis considers all minorities (Native Americans, Hispanic, Blacks, and Asians) as a group, whereas the analysis of Blacks, Hispanics, Native Americans, and Asians considers each minority group separately. Thus, an establishment may have a low utilization of Blacks, for example, but may have an average utilization of Minorities, if it has higher than average utilization of Asians, Hispanics and/or Native Americans. Thus, the affected number of Minority workers will not be the sum of Black, Hispanic, Asian, and Native American affected workers.

“This study does not address the question of whether these ‘affected workers’ are entitled to personal relief. The statute of limitations may have run; they may be satisfied with the work they are doing; they may have left the labor market; or they may be entitled to relief. The concept of “affected workers” identifies the extent of the harm the establishment has caused and the corresponding extent of an appropriate remedy. The employer may secure minority or female workers from any source, including other employers in the same or other industries or labor markets. Workers are constantly shifting between employers and industries, and are constantly entering and leaving the labor market.

**In this Study, Numbers Are Not Quotas. They are Facts.**

27. REALITIES, Chapter 17 considers the extent to which affirmative action may be appropriate in light of statistics of the type we are considering here.
28. The national numbers of affected workers in various categories are discussed in REALITIES, Chapter 9, and in Part III, dealing with individual states.
“As the Supreme Court decisions cited above and others illustrate, numbers alone do not constitute quotas; it is the reason for which the numbers are used, the basis on which the numbers are selected and the manner in which they are used that may constitute illegal preferential treatment under Title VII. This is illustrated succinctly by Justice O’Connor’s analysis that a quota is a ‘rigid numerical requirement that must unconditionally be met’ whereas a goal is ‘a benchmark for measuring compliance with Title VII and eliminating the lingering effects of past discrimination.’ The average utilization of minorities and women in this study in each labor market, industry and occupation, is a fact, rather than a goal or quota. It is a statement of the utilization of minorities and women achieved by similar establishments in similar circumstances. When an establishment falls so far below the average that it is not accidental. The law attaches a judgment of apparent discrimination. Our methodology uses the average as a ‘benchmark’ and applies it only to ‘measure compliance with Title VII.’ The employer is free to demonstrate that it had only legitimate non-discriminatory and job related reasons for the practices that produced the discrimination. In Chapter 8, many of the justifications that employers may be expected to claim are addressed by our methodology. The REALITIES Technical Appendix, §2, also addresses some of these issues.”

II Illustrations of the kind of data that can be generated over time through this type of program.


The following charts are taken from REALITIES pp. 25, 113, 135, and 156 at eeo1.com. The white line represents the proportion of minority and female workers who would have been employed in 1999 if they were distributed through the labor force in the proportions of 1975. The dark line represents the actual utilization of minorities and women in those same occupational categories in 1999.

The difference between the dark and white lines in each occupational category demonstrates improvement by 1999 over the pattern of utilization in 1975.\textsuperscript{30}

\textsuperscript{30} Data concerning Native Americans was too limited to draw conclusions.
THE BURDEN OF DISCRIMINATION--1999

“What is the risk that a minority or woman will face discrimination because of race, sex or national origin when seeking an employment opportunity? The study found that the probability of discrimination varied with the kind of job being sought. The table below describes the probability of discrimination by occupational category. The percentages apply each time a person sought an employment opportunity, be it employment, promotion, assignment, layoff, discharge or other employment related activities.”

31 REALITIES Introduction, p. xiv-xv, at EEO-1.com
Risk of Discrimination because of race, sex, national origin each time a job opportunity is sought in the occupation.

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Hispanics</th>
<th>Asian</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officials and Managers</td>
<td>26.6%</td>
<td>21.8%</td>
<td>24.6%</td>
<td>18%</td>
</tr>
<tr>
<td>Professionals</td>
<td>27.6%</td>
<td>20.7%</td>
<td>30.8%</td>
<td>23%</td>
</tr>
<tr>
<td>Technical workers</td>
<td>29.1%</td>
<td>21.9%</td>
<td>30.2%</td>
<td>23%</td>
</tr>
<tr>
<td>Sales</td>
<td>39.5%</td>
<td>28.1%</td>
<td>27.3%</td>
<td>20%</td>
</tr>
<tr>
<td>Office and Clerical</td>
<td>31.8%</td>
<td>21.8%</td>
<td>26.4%</td>
<td>19%</td>
</tr>
<tr>
<td>Craft workers (skilled)</td>
<td>28.7%</td>
<td>27.1%</td>
<td>35.0%</td>
<td>37%</td>
</tr>
<tr>
<td>Operatives (semi skilled)</td>
<td>33.2%</td>
<td>33.4%</td>
<td>42.8%</td>
<td>38%</td>
</tr>
<tr>
<td>Laborers</td>
<td>34.9%</td>
<td>34.4%</td>
<td>43.6%</td>
<td>30%</td>
</tr>
<tr>
<td>Service workers</td>
<td>40.3%</td>
<td>34.0%</td>
<td>38.1%</td>
<td>19%</td>
</tr>
<tr>
<td>All comparisons</td>
<td>34.1%</td>
<td>35.0%</td>
<td>39.0%</td>
<td>23%</td>
</tr>
</tbody>
</table>

III. *Using the data in individual cases of discrimination*

Once the system is in place, it will be useful, not only in government instituted proceedings commenced by notifying the employer that there is evidence of possible intentional discrimination requiring an explanation, but also in assisting in resolving individual complaints of discrimination. The individual claims—roughly half of which involve discharge cases—are often time consuming and demand so much of agency resources that patterns of systemic discrimination are frequently neglected.

Consider the typical case of an employer seeking to discharge a female/minority worker for a failure of job performance. The supervisor who made the recommendation will give evidence that there was poor performance; the employee
will dispute the facts presented by the supervisor. Both witnesses are equally credible and have personal reasons for viewing the situation in a manner favorable to them. The decision maker who is serious about searching for the truth concerning the events would be aided considerably if there was external evidence, such as witnesses, or other objective evidence. These sources are not often available.

The statistical analysis may provide information that will help the decision maker in a substantial number of cases, regardless of what other information is available. That evidence might show either that the employer’s utilization of women/minorities was well above the mean utilization of women/minorities in the same labor market, industry and occupation, or well below that mean utilization. In the former case, the trier of facts will place a heavier burden on the worker because the presence of such significant numbers in this occupational category suggests that the employer does not have a bias or prejudice. In the latter case, the statistics may suggest the opposite: an employer with a low utilization of women/minorities in that classification suggests the possibility of discrimination is stronger. In resolving the uncertainties, the statistical pattern provides the decision maker with an objective criterion for evaluating the particular facts, thus reducing time and energy in resolving these matters. Where the parties are aware of the statistical situation, they may reach a solution that will obviate extensive and expensive further proceedings.

This use of the statistical data suggests that employers, who are aware of where they stand with respect to their peers in connection with employment, may make a conscious decision to increase the recruitment and hiring of qualified women/minorities so that he no longer stands out like a sore thumb. Such actions will indirectly increase employment opportunities of that group in a manner that does not interfere with employer’s legitimate interest of hiring/promoting qualified workers.

This statistical approach does not give an employer who is employing at above the average a “blank check” to discriminate because the statistics are only one element in decision making.
PART IV  MORE GENERAL USES OF STATISTICS IN IMPLEMENTING
REGULATION OF WORKERS RIGHTS IN AN EFFICIENT AND
ECONOMICAL WAY.

The proposed use of statistics to implement worker’s rights in connection with
employment discrimination matters discussed above is an example of the potential
for increasing efficacy of social legislation in other areas of workers lives, such as
health, safety and environment. The joining of statistical analysis with modern
computer technology can simultaneously enhance the effectiveness of such
legislation and reduce the uncertainty and costs to employers arising from pre-
computer –age methods of investigation that may burden innocent employers and
fail to correct the activities of those who are in violation.

A modern model of regulation will not only require appropriate behavior by
employers, establish an agency to ensure compliance, and allow the agency to
require that employers make and keep records of relevant events, and report those
records in summary form on a periodic basis. This employer reports, computerized
and analyzed through a statistical methodology, provide a foundation for
inspections that will not be based on the whim of a government official, but on a
principle that will further the agency’s mission and avoid the regulated employers
unnecessary time, attention, and costs. The use of a computer analysis of the
employer reports provides proof of “reasonable …administrative standards for
conducting an inspection” has been followed. A detailed example of this type of
analysis conducted by the US Labor Department’s Occupational Safety and Health
Administration appears in the US Court of Appeals decision in Industrial Steel
Products Co., Inc. v. Occupational Safety & Health Admin.
845 F.2d 1330 (1988):

“The plan states that the national OSHA office will provide each regional office with a
statewide industry ranking report classifying all industries within the state under a Standard
Industrial Classification (SIC) code. The SIC code is a four-digit number which classifies
industries by what they manufacture (for example, wood partitions and fixtures or canned and
cured seafoods). All industries within a given SIC code are then assigned a Lost Work Day Injury (LWDI) rate calculated by the Bureau of Labor Statistics. The LWDI rate reflects the average number of work days per 100 full-time employees lost by employees in that industry as a result of occupational injury or sickness.

“To target specific businesses within a state for inspection, OSHA's national office provides each regional office with establishment lists stating the names and addresses of all businesses in the state in each SIC code on the statewide industry ranking report. There is one establishment list for high-hazard industries (defined as industries with an LWDI rate above the national average of 3.4), one for low-hazard industries, and one for nonmanufacturing industries. The national office obtains these names and addresses from Dun's Marketing Service. The establishment lists rank industries in descending order starting with the industry in the SIC codes having the highest LWDI rate. Within each SIC code, businesses are separated by county and then placed in alphabetical order.

“Using specific criteria supplied by OSHA's area director, the regional office then adds or deletes establishments from the high-hazard establishment list. An establishment may only be added if it has more than ten employees but the national office thought it had fewer than ten, or if it was unlisted but is believed to be within an SIC code on the statewide industry ranking report. An establishment may only be deleted if: it cannot be located, is no longer in business, is out of area office jurisdiction, is a nonplant corporate office, has been listed under an incorrect SIC code and the correct SIC code is not on the statewide industry ranking report, a safety inspection has been conducted within the current or previous two fiscal years, it has ten or fewer employees, or its actual LWDI rate is found to be lower than the national average during an OSHA health inspection. Deletions may be made for other reasons only upon the approval of OSHA's regional administrator and director of field operations. After additions and deletions have been made, establishments on the list are numbered consecutively.

“Next, each regional office compiles an inspection register naming establishments within its jurisdiction which will be inspected during the current fiscal year. The number of establishments on the register is determined by doubling the number of programmed inspections projected for the fiscal year (to account for establishments later found to be exempt) and subtracting any uncompleted inspections carried over from the previous fiscal year. Ninety percent of that number is taken in rank order from the top of the high-hazard establishment list. Five percent is selected randomly from the low-hazard establishment list and five percent from the nonmanufacturing list. The random selections give low-hazard and nonmanufacturing businesses incentive to comply with OSHA guidelines. The register is then divided into two equal cycles. With certain limited exceptions, each establishment in the first cycle (the “worst” establishments) must be inspected before the second cycle is begun. Within each cycle, establishments may be inspected in the order that makes the most efficient use of OSHA's resources. Establishments on the register will be exempt from a comprehensive inspection if a preliminary review of their OSHA logs and injury records reveals a lower than average LWDI rate. However, every “tenth establishment” will receive a full-scale inspection regardless of its
actual LWDI rate. This assures that even if businesses falsify their injury records, they still may be subject to inspection.

“This plan is based on specific, neutral criteria. Establishments employing the most workers and having the highest LWDI rates are subject to the most frequent inspections. OSHA’s assertion that it has insufficient resources to inspect every establishment is undisputed. Thus, it is reasonable for OSHA to concentrate on the largest, most dangerous businesses. The addition of some low-hazard and nonmanufacturing firms to the register and the comprehensive inspection of some firms with low actual LWDI rates enhance the plan's neutrality. These devices further OSHA’s legitimate goals of encouraging all firms to comply with its regulations and discouraging firms with high LWDI rates from manipulating accident statistics to avoid comprehensive inspections.

“Inspecting firms within a cycle in the order that makes the most efficient use of OSHA’s resources casts no shadow on the plan’s neutrality. Establishments from the top of the high-hazard list will be in the first cycle and will all be inspected before inspection of the lower-hazard firms in the second cycle begins. In an inspection scheme as pervasive as this one, maintaining precise order is neither always possible nor essential to neutrality. Subjecting a high-hazard firm with a slightly lower LWDI rate to inspection before a higher-hazard firm is not arbitrary.... All firms within a cycle will be inspected in the space of several months in any case. Rearranging their order within the cycle is not discriminatory as Industrial and Mosher contend. Because it furthers OSHA's legitimate goal of efficient resource allocation, it is reasonable.”

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32 In Marshall v. Barlow’s Inc, 436 US 307, 321 (1978) the US Supreme Court held that a “neutral” inspection plan to assure compliance with health and safety regulations would satisfy US Constitutional requirements with respect to government searches and seizures. Whether the Secretary proceeds to secure a warrant or other process, with or without prior notice, his entitlement to inspect will not depend on his demonstrating probable cause to believe that conditions in violation of OSHA exist on the premises. Probable cause in the criminal law sense is not required. For purposes of an administrative search such as this, probable cause justifying the issuance of a warrant may be based not only on specific evidence of an existing violation but also on a showing that “reasonable legislative or administrative standards for conducting an ... inspection are satisfied with respect to a particular [establishment].” Camara v. Municipal Court, 387 U.S., at 538, 87 S.Ct., at 1736. A warrant showing that a specific business has been chosen for an OSHA search on the basis of a general administrative plan for the enforcement of the Act derived from neutral sources such as, for example, dispersion of employees in various types of industries across a given area, and the desired frequency of searches in any of the lesser divisions of the area, would protect an employer's Fourth Amendment rights. We doubt that the consumption of enforcement energies in the obtaining of such warrants will exceed manageable proportions.
Once a “neutral” plan of identifying those establishments likely to fall below the standard of conduct required by legislation has been established, government may make multiple uses of the analysis.

1. Notify employers of their obligations, and encourage “voluntary compliance.” The American experience has been that voluntary compliance results when there is in place an enforcement program leading to serious sanctions for violation, including monetary and other relief to affected workers. 33

2. Give specific notice to those who fall seriously below the norm of appropriate conduct.

3. Investigate those employers who have not complied

4. Draw an adverse inference from the failure of such employers to comply with the norm established by the legislature or the agency.

Importantly, the goal in this approach is not to strive for a world of full compliance and zero discrimination, but rather to use statistics to identify outliers from the statistical average, without bringing any value judgment to the issue of whether that average is good, bad or indifferent.

There are several examples of this approach in the United States. One such example is in the Department of Labor, Mine Safety Administration, and the Occupational Safety and Health Administration. Both agencies have established plans to organize their investigations because of the high volume of complaints, the complexity of a full scale investigation, and the limitations in the agency budgets. Both agencies impose not only safety standards, but also requirements for training workers in safety matters as well as the installation and maintenance of safe equipment.

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An example of how OSHA utilizing its resources by advising employers that they have higher than average injury rates will conclude this discussion. On April 17, 2009, the agency issued the following press release:

“OSHA Notifies Workplaces with High Injury and Illness Rates

WASHINGTON -- The Occupational Safety and Health Administration has notified more than 13,500 employers nationwide that their injury and illness rates are considerably higher than the national average.

A letter sent this month to those employers explained that the notification was a proactive step to encourage employers to take action now to reduce these rates and improve safety and health conditions in their workplaces.

‘Employers whose businesses have injury and illness rates this high need to take immediate steps to protect their workers,’ said acting Assistant Secretary of Labor for OSHA Jordan Barab.

OSHA identified businesses with the nation's highest rates of workplace injuries and illnesses through employer-reported data from a 2008 survey of 80,000 worksites (this survey collected injury and illness data for calendar year 2007). Workplaces receiving notifications had rates more than twice the national average among all U.S. workplaces for injuries resulting in days away from work, restricted work activity, or job transfer.

One can expect that the agency will follow up with public enforcement action against establishments that neither justify their situations nor change their practices. The selection of 13,500 employers to notify that their practices are substantially below the national average is appropriate. But only a proportion of these employers will respond “voluntarily.” A large proportion—possibly more than 75%--will not react. The Department may then need a more complex methodology to decide which of the remaining 10,000+ establishments to proceed against. The two+ standard deviation analysis used in REALITIES or some variation perhaps taking account of matters already of record may assist them. The difficulty is that the task of examining existing records would consume more time than the agency will be able to spend. Looking at those establishments that are 2.5 or even 3 standard deviations may substantially reduce the numbers of establishments to consider. Without a systematic way to address these thousands of employers, the Department will appear to be a paper tiger. When a statistically valid enforcement program is in place and publicized, employers are more likely to take their responsibilities under the law more seriously.