

Civil Action No. 07 CV 2067 (NGG) (RLM)

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA,

Plaintiff,

-and-

VULCAN SOCIETY, INC., for itself and on behalf of its members; MARCUS HAYWOOD, CANDIDO NUNEZ, and ROGER GREGG, individually and on behalf of a class of all others similarly situated,

Plaintiffs-Intervenors,

-against-

CITY OF NEW YORK; THE FIRE DEPARTMENT OF THE CITY OF NEW YORK; NEW YORK CITY DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES; MAYOR MICHAEL BLOOMBERG and NEW YORK CITY FIRE COMMISSIONER NICHOLAS SCOPPETTA, in their individual and official capacities,

Defendants

**DEFENDANTS' MEMORANDUM OF LAW IN
OPPOSITION TO PLAINTIFF'S AND PLAINTIFF-
INTERVENORS' MOTIONS FOR SUMMARY
JUDGMENT CONCERNING THE PRIMA FACIE CASE
OF DISPARATE IMPACT**

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44 FR 11996. 6

STATEMENT OF THE CASE

Defendants respectfully submit this memorandum of law in opposition to the motion of Plaintiff, the United States, for partial summary judgment and in opposition to that portion of the Plaintiffs-Intervenors' motion for summary judgment concerning a prima facie case for disparate impact.

It is indisputable that if the method of disparate impact analysis enshrined in the EEOC regulation at 29 C.F.R. § 1607.4(D), often known as the 80% or 4/5th Rule, is applied to the pass rates for blacks and Hispanics, the results are that there is no impact on either blacks or Hispanics with regard to Exam 2043 and no impact on Hispanics for Exams 7029. Consequently, plaintiffs' motions for summary judgment concerning the prima facie case for disparate impact must be denied.

As set out more fully below, application of the 80% Rule, rather than a test of statistical significance is the most appropriate exercise of the Court's discretion in choosing a method of analysis for a number of reasons. In particular the 80% Rule focuses on the realities of the matter at hand while tests of statistical significance focus on hypothetical situations which assume perfect parity and only use the matter at hand as a "sample" of a hypothetical population. Moreover, when dealing with a pool of applicants as large as the pool of candidates for entry level firefighter as exists in the City of New York, statistical significance testing is almost always going to yield a finding of adverse impact without regard to the actual practical situation.

ARGUMENT

**ONLY APPLICATION OF THE SO CALLED
80% OR 4/5TH RULE WILL YIELD AN
ACCURATE REAL WORLD
UNDERSTANDING OF WHETHER EXAMS
7029 AND 2043 RESULTED IN DISPARATE
IMPACT ON BLACK AND HISPANIC
CANDIDATES.**

A. The Court Has Discretion Concerning The Methodology Of Assessing Adverse Impact

There are two primary ways to assess whether disparate impact exists. One method is set forth in the EEOC Guidelines and is known as the four-fifths (4/5th) or 80% Rule. The other method is known as statistical significance testing. The 80% rule is a method of evaluation which uses basic "descriptive statistics" which are applied to actual occurrences. Descriptive statistics are a statistical methodology best used when what is to be examined is unknown or unknowable. See Declaration of Dr. F. Mark Schemmer at ¶¶ 18, 19, annexed to the Fraenkel Declaration as Exhibit 2. The EEOC regulations provides that a "selection rate for any race, sex or ethnic group which is less than four-fifths (4/5) (or eighty percent) of the rate for the group with the highest rate will generally be regarded by the Federal enforcement agencies as evidence of adverse impact." 29 C.F.R. § 1607.4(D).

Statistical significance testing is a method of evaluation which uses "inferential statistics" to choose between two hypothetical models which are based on actual occurrences, where these actual occurrences are considered to be only a sample of the hypothetical population. Inferential statistics are best used when we cannot examine everything. See Declaration of Dr. F. Mark Schemmer at ¶¶ 18, 20, annexed to the Fraenkel Declaration as Exhibit 2. Statistical significance testing begins with the assumption of a perfect hypothetical universe in which there are no differences between the groups we are to compare. This is called

the “null hypothesis.” The real world, actual candidates for firefighter, become only a “sample” of the hypothetical universe. This “sample” will then be used to determine whether the null hypothesis fits. See Declaration of Dr. F. Mark Schemmer at ¶¶ 23-25, annexed to the Fraenkel Declaration as Exhibit 2. The question becomes whether the sample supports a conclusion that there is perfect parity in the hypothetical world. The null hypothesis fits if there are no “significant” differences within our “sample.” In the context of statistical analysis the term “significance” means that something occurs less than one out twenty times or less than five times out of hundred times. This can also be written as less than 5% or less than a probability of .05, to which statisticians associate approximately two or more units of standard deviations. See Declaration of Dr. F. Mark Schemmer at ¶¶ 24, 26, annexed to the Fraenkel Declaration as Exhibit 2.

The Supreme Court and the Second Circuit teach that trial courts have the discretion to decide whether to use the 80% Rule or statistical significance testing in deciding Title VII claims. See Smith v. Xerox Corp., 196 F.3d 358, 365-66 (2d Cir. 1999). See also, Watson v. Fort Worth Bank & Trust, 487 U.S. 977, 996 n.3. And see, e.g., Waisome v. Port Authority of New York & New Jersey, 948 F.2d 1370, 1376 (2d Cir. 1991) (applying 80% Rule in lieu of statistical significance test in race-based Title VII disparate impact claim where alleged disparity, while “statistically significant,” was of limited magnitude and not sufficiently substantial); Bushey v. New York State Civil Serv. Comm’n, 733 F.2d 220, 225-26 (2d Cir. 1984) (applying 80% Rule in race-based Title VII disparate impact claim); Ottaviani v. State Univ. of New York at New Paltz, 775 F.2d 365, 371 (2d Cir. 1989) (applying statistical significance test in gender based Title VII disparate treatment claim where plaintiff’s proffered

statistical evidence was not "statistically significant" enough to establish a prima facie case of discrimination).

The Supreme Court and the Second Circuit have noted that neither test always answers the question concerning disparate impact and courts should judge the substantiality of a disparity on a "case-by case basis." See Smith v. Xerox Corp., 196 F.3d 358, 365-66 (2d Cir. 1999) (describing the 80% Rule as one method the court has considered persuasive in measuring disparities between groups); see also, Watson v. Fort Worth Bank & Trust, 487 U.S. 977, 996 n.3 (1988) (approving the case-by-case approach because "statistics 'come in infinite variety and . . . their usefulness depends on all of the surrounding facts and circumstances.'") Accordingly, the Court is free to choose and, for the reasons stated below, should choose employ the 80% Rule examine in the instant matter.

B. The 80% Rule is a Sounder Method than Statistical Significance Analysis To Measure Disparate Impact in this Case

As indicated above, statistical significance testing is more concerned with the hypothetical than the real. It is rooted in inferential statistics. It serves a valid function in some instances. It allows for the evaluation of that which cannot be fully measured otherwise. One such effort, to use the example that Dr. Schemmer gives in his declaration, is to estimate out how many apples produced in all of New York State when shipped in barrels will be rotten. This is something for which hard data would be lacking, unless every apple in New York State in every barrel were examined. See Declaration of Dr. F. Mark Schemmer at ¶ 20, annexed to the Fraenkel Declaration as Exhibit 2. Descriptive statistics, the 80% Rule, is more suited to those instances when the actual data is known and knowable. In this case that is the number of, and ethnic identification of, every candidate who took Exams 7029 and 2043. Here, we know all the data we need. Nothing is lacking that necessitates resorting to turning actual candidates into

“samples” of a hypothetical population which assumes absolute parity. Statistical significance has it uses but it is not the real world and need not be applied here.

Moreover, statistical significance testing, being based in inferential statistics, has some aspects which are not only problematic in the context of a case such as this, but run against basic notions of fairness. Justice should be based on real evidence not probable evidence or probability. As Dr. Schemmer notes, the more times we do something the more likely we are to get a different result. So the larger the group we examine the more likely we are to find differences. Returning, to his example, the more apples in a barrel we examine, the more likely we are to find a rotten one. See Declaration of Dr. F. Mark Schemmer at ¶¶ 28-30, annexed to the Fraenkel Declaration as Exhibit 2.

Statistical significance testing is rooted in the unreal assumption that all are alike, that there are no bad apples in the State of New York. In a discrimination case, statistical significance testing will assume that all people perform at equal levels. However, we know that all individuals do not perform at the same level. So, when we move to groups, when we aggregate the individuals, it is not reasonable to expect that the groups will perform perfectly equally. We cannot expect perfect parity. Yet, statistical significance testing is however premised on perfect parity. That is that null hypothesis. The problem is that the larger the group we are examining, the more candidates who sit for the exam, the greater our likelihood that some of them will not do as well as others. The greater our likelihood that we will find more differences and have the null hypothesis fail.. This in turn will necessitate a finding of statistical significance. See Declaration of Dr. F. Mark Schemmer at ¶ 31, annexed to the Fraenkel Declaration as Exhibit 2.

Thus, even if we are finding that the minority candidates pass at the rate of at least 80% of the rate of non-minority candidates we would still not satisfy the null hypothesis and have a finding of disparate impact under a test of static significance. This will be so even if, as we move from a smaller sample to a larger sample, the relative real world ratio of difference between the groups we are comparing does not change. Despite this absence of change in the pass rates, there will still be this greater chance of the existence of “significant differences.” As Dr. Schemmer notes, it is ironic that with statistical significance testing if you have too small a group you will not be able to find any differences and if you have too large a group then statistical significance testing will inevitably discover that there is not perfect parity in the real world. See Declaration of Dr. F. Mark Schemmer at ¶ 30 annexed to the Fraenkel Declaration as Exhibit 2.

In contrast the 80% Rule provides a practical view of analysis which always reflects the real world. Declaration of Dr. F. Mark Schemmer at ¶ 21, annexed to the Fraenkel Declaration as Exhibit 2. Its relatively straightforward and easy to implement methodology has resulted in its becoming the most favored application for determining adverse impact in employment discrimination cases. Even the EEOC Guidelines primarily rely on the 80% Rule, rather than tests of statistical significance, as a practical and easy-to-administer measure of whether differences in selection rates are substantial. See Question and Answer 24, Adoption of Questions and Answers to Clarify and Provide a Common Interpretation of the Uniform Guidelines on Employee Selection Procedures, 44 Fed. Reg. 11,996 (March 2, 1979)(“Many decisions in day-to-day life are made without reliance on a test of statistical significance.”).

Significance testing does not tell us about what actually occurred, but rather only if there is some difference between us and the ideal of perfection. See Declaration of Dr. F. Mark

Schemmer at ¶ 27, annexed to the Fraenkel Declaration as Exhibit 2. It has value in those cases where the full complement of those affected is not or cannot be known. It has value in those cases where the “sample” is not so large as to distort the results. On the other hand the 80% Rule is more suited to cases such as the one now before the court where the full complement of those affected is known and are so numerous as to distort the results of statistical significance testing. In this case the 80% Rule does not distort results. It does not create a perfect model by which to compare a less than perfect world. The 80% Rule examines the facts on the ground. It provides us with an unfiltered assessment of what happened. It considers "reality" and therefore, and logically, more accurately describes what is occurring. See Declaration of Dr. F. Mark Schemmer at ¶ 19, annexed to the Fraenkel Declaration as Exhibit 2. As the 80% Rule is not subject to distortions it is the best and most accurate measure of disparate impact. It is the preferable statistical test to apply in a disparate impact case as it is a practical and consistent standard that is unaffected by fluctuations in the size of applicant pools over time and unaffected by the overall hiring rate. See Declaration of Dr. F. Mark Schemmer at ¶ 31, annexed to the Fraenkel Declaration as Exhibit 2.

C. Application of the 80% Rule to Exams 7029 and 2043

Applying the 80% Rule to the pass rates for blacks and Hispanics on Exams 7029 and 2043 shows that there is no adverse impact on either blacks or Hispanics with regard to the written component of Exam 2043 and no adverse impact on Hispanics for the written component of Exam 7029. See Declaration of Dr. F. Mark Schemmer at ¶ 32, annexed to the Fraenkel Declaration as Exhibit 2. Plaintiff's expert, Dr. Siskin concurs with this conclusion. In addition Dr. Siskin also finds that when the 80% rule is used to examine what he calls “effective pass rates” and the ranking of candidates, there is no adverse impact for Hispanics with regard to the written component of Exam 2043. See Declaration of Dr. F. Mark Schemmer at ¶ 33, annexed to

the Fraenkel Declaration as Exhibit 2. Similarly, plaintiffs-intervenors' expert, Dr. Wiesen found that when the 80% Rule is used to examine the written pass rate, the physical pass rate and certification rate, there is no adverse impact for blacks as to Exam 2043. See Declaration of Dr. F. Mark Schemmer at ¶ 34, annexed to the Fraenkel Declaration as Exhibit 2. Dr. Wiesen also found that for Exam 7029 there is no adverse impact as to blacks with regard to the physical pass rate. See id.

CONCLUSION

For the foregoing reasons defendants respectfully pray that the Court deny the summary judgment motions of Plaintiff, the United States, and the Plaintiffs-Intervenors.

Dated: New York, New York
February 23, 2009

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Due and timely service is hereby admitted.

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