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April 13, 2017

The Honorable Jeff Sessions
Attorney General
T. E. Wheeler, II
Acting Assistant Attorney General, Civil Rights Division
United States Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530-0001

Re: Misunderstandings of Statistics Relating to the Department of Justice's
Enforcement of Civil Rights Laws

Dear Attorney General Sessions and Acting Assistant Attorney General Wheeler:

Introduction

This letter has two purposes. The first purpose, addressed in Section A, is to explain to the Department of Justice (DOJ) that many federal civil rights enforcement policies have long been based on an understanding of statistics that is the exact opposite of reality and to urge the agency to take certain steps to remedy the consequences of its actions based on that understanding. A second purpose, addressed in Section B, is to explain to the agency that, even apart from consequences of the aforementioned mistaken understanding, almost all law enforcement activities involving statistical analyses of discrimination issues have been statistically unsound and to urge the agency to form a committee to study the soundness of such analyses.

By way of summary as to the letter's first purpose, many civil rights enforcement policies of DOJ and other agencies regarding matters including criminal justice, lending, school discipline, voter qualification, and employment have been based on the belief that relaxing standards and otherwise reducing the frequency of some adverse outcome will tend to reduce (a) relative (percentage) demographic differences in rates of experiencing the outcome and (b) the proportions groups more susceptible to the outcome make up of persons experiencing it. Further, DOJ, alone or in conjunction with other agencies, has been leading entities covered by civil rights laws, the courts, and the public also to believe that actions that generally reduce adverse outcomes will tend to reduce (a) and (b) as to the outcomes.

In fact, generally reducing any outcome will tend to increase, not reduce, both (a) and (b) as to the outcome. Moreover, while such fact is little known even among persons deemed expert in the analyses of demographic differences, it is by no means debatable. By way of simple examples as to which there exists no plausible basis for disagreement (and which will be illustrated in Tables 1 to 3 *infra*), (1) test score data show that lowering a test cutoff, while tending to reduce relative differences between the pass rates of higher- and lower scoring-groups, will tend to increase relative differences between the failure rates of such groups; and (2) income and credit score data on African Americans and whites show that lowering an income or credit score requirement to secure some desired borrowing or other outcome, while tending to reduce relative racial differences between rates of meeting the requirement, will tend to increase relative racial differences between rates of failing to meet the requirement.

Further, more than a decade ago the National Center for Health Statistics recognized that improvements in health and healthcare, while tending to reduce relative differences in favorable health and healthcare outcomes (the increasing outcomes), tend to increase relative differences in the corresponding adverse health and healthcare outcomes (the decreasing outcomes). No other arm of the federal government, however, has yet shown a recognition that it is even possible for the relative difference in a favorable outcome and the relative difference in the corresponding adverse outcome to change in opposite directions as the frequency of an outcome changes, much less that such pattern tends to occur systematically.

Once understanding this issue, I suggest, DOJ has an obligation to review all of its activities that may be based on the aforementioned mistaken understanding with a view toward taking appropriate corrective action. Such actions should include advising all entities that DOJ may have misled with respect to this matter that the agency's understanding was incorrect. And such actions should be taken immediately, especially with respect to alerting the court in *United States v. Baltimore Police Department et al.*, Civ. No. JKB-17-99 (D. Md.), that contrary to a central premise of the consent decree the court entered on April 7, 2017, actions required by the decree are more likely to increase than decrease relative racial and other demographic differences in adverse criminal justice outcomes and the proportions African Americans and other more susceptible groups make up of persons experiencing those outcomes.

By way of summary as to the second purpose of the letter, the misunderstanding regarding the effects of relaxing standards and otherwise reducing the frequency of adverse outcomes on measures of demographic differences regarding such outcomes is but part of a larger failure of the DOJ and other arms of the federal government, as well as the nongovernmental social and medical science research communities, to recognize the ways all measures commonly employed in analyses of demographic differences involving binary outcomes tend to be affected by the frequency of an outcome. That failure, along with a failure to understand certain other matters, has long undermined civil rights enforcement by DOJ and other agencies. But resolving these issues will require concerted action from the agency and other arms of the government whose missions have been similarly compromised by the inadequate understanding of statistics. Thus, I suggest that DOJ should form a committee to address this subject thoroughly, preferably in conjunction with other agencies whose activities involve the interpretation of data on

demographic differences. While doing so, the agency should limit enforcement activities involving statistical evidence to those where agency attorneys and consultants, while fully informed of the issues raised in this letter and materials it references, are confident that the agency is proceeding with an adequate understanding of the statistical issues involved in the matter.

The second subject of this letter is as important as the first. But this letter principally addresses the first subject because, with respect to matters in Baltimore, Maryland and other places, in consequence of the mistaken understanding described at the outset, law enforcement agencies, and individual within those agencies, are placed in untenable positions. For they are being required to take actions that will tend to increase (a) relative demographic differences in rates of experiencing certain outcomes and (b) the proportions groups more susceptible to the outcomes make up of persons experiencing them, at the same time that high values for (a) and (b) are being regarded as evidence of noncompliance with decrees or agreements and discrimination on the part of agencies and individuals within agencies. Moreover, public perceptions about racial disparities in adverse outcomes, which are commonly based on provocative but misunderstood statistics, will grow even more distorted as actions aimed at reducing certain measures of disparities in fact increase them.

Further, decisions now being made within DOJ regarding actions to take in light of the entry of the decree in Baltimore over the agency's objections should be informed by an understanding of the fallacy of a central premise of the decree. Similarly, the review of consent decrees and other activities involving state and local law enforcement agencies pursuant to the Attorney General's Memorandum of March 31, 2017, ought to be informed by a complete understanding of the extent to which premises of those activities are incorrect.

Recent treatments of these issues as they bear on situations in Baltimore (or Ferguson, Missouri and Chicago, Illinois) may be found in "[Things DOJ doesn't know about racial disparities in Ferguson](#)," *The Hill* (Feb. 22, 2016),¹ "[Misunderstanding of Statistics Confounds Analyses of Criminal Justice Issues in Baltimore and Voter ID Issues in Texas and North Carolina](#)," Federalist Society Blog (Oct. 3, 2016), "[Will Trump Have the First Numerate Administration?](#)" Federalist Society Blog (Jan. 4, 2017), "[Compliance Nightmare Looms for Baltimore Police Department](#)," Federalist Society Blog (Feb. 8, 2017), and "[Racial Impact Statement Laws in New Jersey and Elsewhere](#)," Federalist Society Blog (Mar. 20, 2017).

A recent, extended treatment of the larger issues, which issues are also touched upon in the January 4, 2017 Federalist Society Blog post, may be found in my [Comments for the Commission on Evidence-Based Policymaking](#) (Nov. 14, 2016) (CEBP comments). Other extended treatments in recent years include my [letter](#) to American Statistical Association (Oct. 8,

¹ To facilitate consideration of issues raised in documents such as this I include links to referenced materials in electronic copies of the documents, in some cases, for the reader's convenience, providing the links more than once. Such copies are available by means of the [Measurement Letters](#) page of [jpscanlan.com](#). If the online version of the letter is amended, such fact will be noted on the first page.

2015) (ASA letter), amicus curiae [brief](#) in *Texas Department of Housing and Community Development, et al. v. The Inclusive Communities Project, Inc.*, Sup. Ct. No. 13-1731 (Nov. 17, 2014) (TDHCA brief), “[Race and Mortality Revisited](#),” *Society* (July/Aug. 2014), “[The Perverse Enforcement of Fair Lending Laws](#),” *Mortgage Banking* (May 2014), and “[The Mismeasure of Discrimination](#),” Faculty Workshop, University of Kansas School of Law (Sept. 20, 2013) (Kansas Law paper).

Prior explanations of these issues to DOJ itself may be found in my April 23, 2012 [letter](#) to the agency and my March 9, 2015 [letter](#) to the agency and the City of Ferguson, Missouri.

Some of the above materials contain graphical or tabular illustrations of the pertinent statistical patterns and situations where the patterns are misunderstood. More extensive graphical and tabular illustrations may be found in methods workshops I have given since 2012 at the following American educational institutions: [University of Massachusetts Medical School](#) (2015), [University of California, Irvine](#) (2015), [George Mason University](#) (2014), [University of Maryland](#) (2014), [University of Minnesota](#) (2014), [Harvard University](#) (2012), [American University](#) (2012).²

A. The Department of Justice’s Mistaken Belief That Relaxing Standards and Otherwise Reducing the Frequency of an Adverse Outcome Will Tend to Reduce (a) Relative Differences in Rates of Experiencing the Outcome and (b) the Proportion Groups Most Susceptible to the Outcome Make up of Persons Experiencing the Outcome

For reasons related to the shapes of underlying distributions of factors associated with experiencing an outcome or its opposite, all standard measures of differences between outcome rates (*i.e.*, the proportions of demographic groups experiencing a binary outcome) tend to be affected by the frequency of an outcome. The pattern most pertinent here is that whereby the rarer an outcome, the greater tends to be the relative difference in experiencing it and the smaller tends to be the relative difference in avoiding it (*i.e.*, experiencing the opposite outcome). A corollary to this pattern is a pattern whereby the rarer an outcome, the greater tend to be the proportions groups most susceptible to the outcome make up of both persons who experience the outcome and persons who avoid the outcome.

The patterns can be easily illustrated with normally distributed test score data. Table 1 below shows the pass and fail rates of an advantaged group (AG) and a disadvantaged group (DG) at two cutoff points in a situation where the groups have normally distributed test scores with means that differ by half a standard deviation (a situation where approximately 31 percent of

² The workshops are similar in content, though with some variation as to focus or emphasis. The workshop most pertinent to the subject of this letter is that titled “[The Mismeasure of Discrimination](#),” given at the Center for Demographic and Social Analysis of the University of California, Irvine. Shorter PowerPoint presentations with a similar focus include “[The Mismeasure of Disparate Impact](#),” Federalist Society Fourth Annual Executive Branch Review Conference (May 17, 2016), and a presentation titled “[The Mismeasure of Discrimination](#)” that was delivered in conjunction with the September 20, 2013 Kansas Law paper of the same title.

DG's scores are above the AG mean) and both distributions have the same standard deviation. The table also shows (in columns 5 through 8) measures that might be used to appraise differences in test outcomes of AG and DG.

Column 5, which presents the ratio of AG's pass rate to DG's pass rate,³ shows that at the higher cutoff, where pass rates are 80 percent for AG and 63 percent for DG, AG's pass rate is 1.27 times (27 percent greater than) DG's pass rate. If the cutoff is lowered to the point where AG's pass rate is 95 percent, DG's pass rate would be about 87 percent. At the lower cutoff, AG's pass rate is only 1.09 times (9 percent greater than) DG's pass rate.

Table 1. Illustration of effects of lowering a test cutoff on measures of differences in test outcomes

Row	(1) AG Pass Rate	(2) DG Pass Rate	(3) AG Fail Rate	(4) DG Fail Rate	(5) AG/DG Pass Ratio	(6) DG/AG Fail Ratio	(7) DG Prop of Pass	(8) DG Prop of Fail
1	80%	63%	20%	37%	1.27	1.85	44%	65%
2	95%	87%	5%	13%	1.09	2.60	48%	72%

That lowering a cutoff tends to reduce relative differences in pass rates is well understood and underlies the widespread view that lowering a cutoff tends to reduce the disparate impact of tests on which some groups outperform others.

But, whereas lowering a cutoff tends to reduce relative differences in pass rates, it tends to increase relative differences in failure rates. As shown in column 6, initially DG's failure rate was 1.85 times (85 percent greater than) AG's failure rate. With the lower cutoff, DG's failure rate is 2.6 times (160 percent greater than) AG's failure rate.

Columns 7 and 8 show the proportions DG makes up of persons who pass and fail the test at each cutoff in a situation where DG makes up 50 percent of persons taking the test. Column 7 shows that lowering the cutoff increases the proportion DG makes up of persons who pass from

³ While I commonly refer to patterns of relative differences in this letter, the table actually presents rate ratios (also termed risk ratios or relative risks). The relative difference is the rate ratio minus 1 where the rate ratio is above 1 and 1 minus the rate ratio where the rate ratio is below one. In the former case, the larger the rate ratio, the larger the relative difference; in the latter case, the smaller the rate ratio, the larger the relative difference. It is more common to employ the disadvantaged group's rate as the numerator for the favorable as well as the adverse outcome, which is the approach as to favorable outcomes of the "four-fifths" or "80 percent" rule for identifying disparate impact under the Uniform Guideline for Employee Selection Procedures. I have sometimes employed this approach, as in "[Can We Actually Measure Health Disparities?](#)" *Chance* (Spring 2006). More recently, however, I have used the larger figure as the numerator for both rate ratios, in which case, as to both favorable and adverse outcomes, the larger the ratio, the larger the relative difference. Choice of numerator in the rate ratio, however, has no bearing on the patterns by which as the frequency of an outcome changes, the two relative differences tend to change in opposite directions.

44 percent to 48 percent (hence, *reducing* all measures of difference between the proportions DG makes up of persons who took the test and persons who passed the test). Column 8 shows that lowering the cutoff increases the proportion DG makes up persons who fail the test from 65 percent to 72 percent (hence, *increasing* all measures of difference between the proportions DG makes up of persons who took the test and persons who failed the test).

Inasmuch as the pattern by which the proportions more susceptible groups make up of persons experiencing and avoiding an outcome tend to be affected by the frequency of an outcome is a corollary to the pattern by which the two relative differences tend to be affected by the frequency of the outcome, in the discussion that follows I limit discussion of those proportions to situations where that matter is pertinent.

It is important to understand that DOJ and other entities analyzing racial and other disparities issues have not reasoned as follows: It is true that lowering test cutoffs will tend to increase relative differences in test failure rates. But there are reasons why, in other settings, one will in fact find that relaxing standards and otherwise reducing the frequency of adverse outcomes will tend to reduce relative differences in adverse outcome rates.

Rather, it simply has never occurred to these entities that lowering test cutoffs would increase relative differences in failure rates. Presumably, they assumed (to the extent they gave it thought) that if lowering a cutoff reduced relative differences in pass rates, it would also reduce relative differences in failure rates.⁴ And I interject here that as to all matters where less discriminatory alternatives are at issue, neither the DOJ nor any other entity has recognized that

⁴ Some have regarded the pattern whereby reducing the frequency of an outcome (a) tends to increase relative differences between rates of experiencing the outcome at the same time that it (b) tends to reduce relative differences between rates of avoiding the outcome as counterintuitive or surprising. In fact, however, (b) is implied in (a), if in fact (b) is not exactly the same thing as (a). For if reducing the frequency of an outcome tends to increase relative differences in rates of experiencing the outcome, it necessarily follows that increasing the frequency of an outcome tends to reduce relative differences in rates of experiencing the outcome. And if one outcome declines in frequency (hence, tending to increase relative differences as to that outcome), it necessarily follows that the opposite outcome increases in frequency (hence, tending to reduce relative differences as to that outcome).

The same point can be made with regard to the pattern whereby reducing the frequency of an outcome tends to cause the group (of two groups) more susceptible to an outcome to make up a larger proportion of persons experiencing the outcome and a larger proportion of persons experiencing the opposite outcome. For if a reduction in the frequency of an outcome tends to cause the group more susceptible to the outcome to make up a larger proportion of persons experiencing the outcome, it follows that an increase in the frequency of an outcome tends to cause the group more susceptible to the outcome to make up a smaller proportion of persons experiencing it. Thus, if an outcome increases in frequency (hence, tending to increase the proportion the more susceptible group makes up of persons experiencing the outcome), the opposite outcome necessarily decreases in frequency (hence, tending to decrease the proportion the group more susceptible to that outcome makes up of persons experiencing it). See the ASA letter (at 10 note 14) with respect to the same point regarding the corollary pattern (not addressed here) whereby as an outcome changes in frequency, the group with the lower baseline rate for the outcome tends to experience a larger proportionate change in its rate of experiencing the outcome than the other group, while the other group tends to experience a larger proportionate change in its rate of experiencing the opposite outcome than the first group.

lowering a test cutoff or otherwise relaxing a standard as a means of reducing the discriminatory impact of any requirement, while tending to reduce the relative difference for the favorable outcome, tends to increase the relative difference for the corresponding adverse outcome.⁵ See my [“Is the Disparate Impact Doctrine Unconstitutionally Vague?”](#) Federalist Society Blog (May 6, 2016) (available as a PDF [here](#)), and [“Is HUD’s Disparate Impact Rule Unconstitutionally Vague?”](#) *American Banker* (Nov. 10, 2014).

In any case, the pattern of relative differences described above is by no means limited to test score data. It can be found in virtually any setting where two groups have different, more or less normal, distributions of factors associated with experiencing some outcome. Income and credit score data, for example, show how lowering an income or credit score requirement, while tending to reduce relative racial differences in meeting the requirement, will tend to increase relative racial differences in failing to meet the requirement.

Such pattern is illustrated in Tables 2 and 3 below, which are abbreviated versions of Tables 1 and 2 of the [Income and Credit Score Examples](#) subpage of the [Lending Disparities](#) page of [jpscanlan.com](#), which also explains the origins of the data. It follows the format of Table 1 above (without the last two columns), while presenting, in place of the AG and DG pass and fail rates, the white and black rates of falling above and below various income levels or credit scores. Movement down the five rows of the tables illustrates the effects of lowering the income or credit score requirements on the two relative differences, revealing the patterns just described. That is, the lower the requirement, and thus the greater the overall rates of meeting the requirement and the smaller the overall rates of failing to meet the requirement, the smaller is the relative difference in meeting the requirement (column 5) and the larger is the relative difference in failing to meet the requirement (column 6). One will observe the same pattern for all 16 rows of Table 1 and all 14 rows of Table 2 on the referenced webpage.⁶

⁵ That no agencies have recognized this or related patterns does not mean that no individuals within agencies have recognized them. For the patterns are quite evident in many types of data and I have described them in many places over many years and have brought them to the attention of many individuals within agencies. Further, as of 1995 (and several years earlier), I was the Assistant General Counsel for Expert Services of the Equal Employment Opportunity Commission (EEOC) and had been describing the patterns in various publications since 1987. As of that time, it might be said that, to a degree, EEOC understood the patterns in an institutional sense.

⁶ Usually I use the phrase “tends to” in order to preclude (or at least make more difficult) efforts to dispute my descriptions of patterns by which measures tend to be affected by the prevalence of an outcome on the basis that the patterns will not always be observed. The discussion above does not use the phrase because the discussion pertains to what the tables in fact show. We know from the tables that in actual situations, lowering standards will tend to have effects described above (and will almost always do so in cases where standards are substantially lowered). But that does not mean that the patterns will be observed in every case. That the patterns may not always be observed in no way lessens the necessity of seeking to understand the effects of the frequency on outcome on the measures employed in analyses of demographic differences, either generally or in the situations where one must interpret data on a demographic difference for a particular purpose.

Table 2. Illustration of effects of lowering an income requirement on relative differences in meeting the requirement and relative differences in failing to meet the requirement

Income	(1) Perc of Wh Abv	(2) Perc of Bl Abv	(3) Perc of Wh Bel	(4) Perc of Bl Bel	(5) Wh/Bl Abv Ratio	(6) Bl/Wh Bel Ratio
\$100,000	27.0%	12.1%	73.0%	87.9%	2.23	1.20
\$85,000	34.6%	17.3%	65.4%	82.7%	2.00	1.26
\$75,000	41.1%	22.7%	58.9%	77.3%	1.81	1.31
\$60,000	52.5%	31.3%	47.5%	68.7%	1.68	1.45
\$50,000	61.0%	39.2%	39.0%	60.8%	1.56	1.56

Table 3. Illustration of effects of lowering a credit score requirement on relative differences in meeting the requirement and relative differences in failing to meet the requirement

Score	(1) Perc of Wh Abv	(2) Perc of Bl Abv	(3) Perc of Wh Bel	(4) Perc of Bl Bel	(5) W/B Abv Ratio	(6) B/W Bel Ratio
740	46.80%	19.50%	53.20%	80.50%	2.40	1.51
720	57.77%	27.01%	42.23%	72.99%	2.14	1.73
700	67.83%	35.67%	32.17%	64.33%	1.90	2.00
680	76.73%	45.42%	23.27%	54.58%	1.69	2.35
660	83.90%	55.70%	16.10%	44.30%	1.51	2.75

Notwithstanding that data like that in Tables 2 and 3 should make it abundantly clear that relaxing income and credit requirements for securing a loan product will tend to increase relative racial differences in failing to meet the requirements, since at least 1994 the DOJ and other agencies enforcing fair lending laws have been encouraging lenders to relax standards in order to reduce relative differences in adverse borrower outcomes. And because those agencies have continued to monitor the fairness of practices on the basis of relative differences in adverse borrower outcomes, lenders that acceded to government encouragements or pressures to relax standards increased the chances that the government (or others) will sue them for discrimination.

See my "[Bias Data Can Make the Good Look Bad](#)," *American Banker* (Apr. 27, 1992), and "[Getting it Straight When Statistics Can Lie](#)," *Legal Times* (June 23, 1993), explaining this issue before the government (by the 1994 [Interagency Policy Statement on Discrimination in Lending](#)) formally began encouraging the relaxing of standards to reduce relative racial/ethnic differences in mortgage rejection rates. The government, however, was already targeting lenders on the basis of the size of relative racial differences in mortgage rejection rates without understanding that lenders with more lenient standards would tend to have larger differences in mortgage

rejection rates than lenders with less lenient standards. See my [“When Statistics Lie,”](#) *Legal Times* (Jan. 1 1996), regarding a putative private class action based on a study that found the defendant to have the largest relative racial difference in mortgage rejection rates in the Washington, DC area.

See my [“The Perverse Enforcement of Fair Lending Laws,”](#) *Mortgage Banking* (May 2014), [“Misunderstanding of Statistics Leads to Misguided Law Enforcement Policies,”](#) *Amstat News* (Dec. 2012), [“Disparate Impact’: Regulators Need a Lesson in Statistics”](#) (*American Banker*, June 5, 2012), and [“The Lending Industry’s Conundrum,”](#) *National Law Journal* (Apr. 2, 2012) regarding the pertinence of this issue to the suits involving the disproportionate assignment of minority loans to subprime status in which DOJ secured settlements totaling more than half a billion dollars from Countrywide Financial Services and Wells Fargo Bank earlier this decade.⁷

As noted, the pattern whereby reducing the frequency of an outcome tends to increase the proportions more susceptible groups make up of persons experiencing the outcome – an increasing focus of analyses of school discipline disparities and possibly the predominant focus of analyses of criminal justice disparities – is simply a corollary to the pattern by which reducing the frequency of an outcome tends to increase the relative difference in experiencing the outcome. An easy to understand illustration of the effects of relaxing a standard on the proportion the most susceptible group makes up of persons experiencing an adverse outcome may be found in a Department of Education (DOE) March 1, 2014 [Issue Brief](#) on school discipline. A chart on page 7 indicates that black children made up 42 percent of preschool students suspended once and 48 percent of preschool students suspended multiple times. In conjunction with numbers of suspensions shown in a note (5,000 for single suspensions and 2,500 for multiple suspensions), one can divine that black children made up 44 percent of children suspended one or more times. Thus, if all students suspended had been given a lesser punishment instead of their first suspension, the 44 percent figure would be 48 percent.

With respect to the seemingly huge racial disparities in suspensions among preschool students cited in the report and that received much attention in the press when the report was released, see Table 8 (at 342) of “Race and Mortality Revisited” for an illustration the way that relative racial differences in multiple suspensions were larger, while relative differences in rates of avoiding multiple suspension were smaller, in preschool, where multiple suspensions are rare, than in K-12, where multiple suspensions are far more common.⁸

Similarly, a DOE Office of Civil Rights November 2012 document titled [“Helping to Ensure Equal Access to Education: Report to the President and Secretary”](#) notes (at 28) that among all

⁷ As discussed in the *Mortgage Banking* article, DOJ analyses in these cases also suffered from the failure to examine the entire universe of persons subject to the challenged process. This issue is discussed further in Section B.

⁸ See my August 14, 2015 [letter](#) to the Department of Health and Human Services and the Department of Education (at 4 note 6) regarding the fact that a substantial proportion of school districts with preschool programs, and an even more substantial proportion of individual programs within districts, had no preschool suspensions.

school district in the report's sample with at least one expulsion, African Americans made up 18 percent of students and 39 percent of students expelled, and that in sampled districts with at least one expulsion under zero tolerance policies, African Americans made up 19 percent of students and 33 percent of students expelled. That is, though African Americans made up approximately equal proportion of students in districts with and without zero tolerance policies, they made up a larger proportion of expelled students in districts without such policies.⁹

See my November 15, 2015 [letter](#) to the Boston Lawyers' Committee for Civil Rights and Economic Justice (regarding data showing that Massachusetts, which had lower suspension rates than the national average, had larger relative differences in suspension rates (by race and disability status), but smaller relative differences in rates of avoiding suspensions, than the national average) and the [Suburban Disparities](#) subpage of the [Discipline Disparities](#) page of [jpscanlan.com](#) (regarding the larger relative racial differences suspension rate in the suburbs of Philadelphia than in the city itself).¹⁰

Nevertheless, at least since 2014, the Departments of Justice and Education (and more recently the Department Health and Human Services) have been attributing large relative racial/ethnic differences in school discipline rates or high proportions racial minorities make up of students disciplined to stringent discipline policies and have encouraged or pressured school district to relax standards in order to reduce those relative differences and proportions. And across the country state and local jurisdictions that have relaxed standards, presumably in many cases relying on the expertise of the federal government in this area, have generally found those differences and proportions to increase. See the subpages to the Discipline Disparities page

⁹ See the [DOE Equity Report](#) subpage of the [Discipline Disparities](#) page of [jpscanlan.com](#) regarding certain calculation issues.

¹⁰ One of the most profoundly misunderstood commonplace patterns is that where comparatively advantaged geographic areas (or subgroups) tend to have comparatively large relative socioeconomic and racial differences in adverse outcomes. Observers remarking on such pattern (or intensely studying it) have invariably failed to see the connection to the rarity of the adverse outcome in the comparatively advantaged area or subgroup or to note the comparatively small relative differences in the corresponding favorable outcome. See "Race and Mortality Revisited"(at 339-341) and the [abstract](#) to the University of Massachusetts Medical School seminar titled "[The Mismeasure of Health Disparities in Massachusetts and Less Affluent Places](#)." See also my "[It's easy to misunderstand gaps and mistake good fortune for a crisis](#)," *Minneapolis Star Tribune* (Feb. 8, 2014), "[Race and Mortality](#)," *Society* (Jan./Feb. 2000), and "[The Perils of Provocative Statistics](#)," *Public Interest* (Winter 1991). See "[The Perverse Enforcement of Fair Lending Laws](#)," *Mortgage Banking* (May 2014), and "[Statistical Quirks Confound Lending Bias Claims](#)," *American Banker* (Aug. 14, 2012), regarding the mistaken significance attributed by DOJ and others to comparatively large relative differences in adverse borrower outcomes among high income groups, which can be compared with the mistaken significance attributed to comparatively small relative differences in favorable borrower outcomes discussed in "Race and Mortality Revisited" at 340-341. See "[The 'Feminization of Poverty' is Misunderstood](#)," *Plain Dealer* (Nov 11, 1987), regarding the fact that, even though female-headed families make up a far higher proportion of black families in the comparatively poor state of Mississippi than they make up of white families in the comparatively wealthy state of Massachusetts, female-headed families make up a substantially higher proportion of poor white families in Massachusetts than they make up of poor black families in Mississippi.

discussing this situation with regard to the jurisdictions indicated in the titles of the subpages: [California Disparities](#), [Colorado Disparities](#), [Connecticut Disparities](#), [Maryland Disparities](#), [Minnesota Disparities](#), [Oregon Disparities](#), [Beaverton, OR Disparities](#), [Denver Disparities](#), [Henrico County, VA Disparities](#), [Los Angeles SWPBS](#), [Minneapolis Disparities](#), [Montgomery County, MD Disparities](#), [Portland, OR Disparities](#), [St. Paul Disparities](#).¹¹ This has occurred, moreover, notwithstanding that teachers and administrators are likely doing many things apart from relaxing standards in order to reduce racial differences in discipline rates.

See my September 20, 2016 [letter](#) to the Oklahoma City School District and the [Oakland Agreement](#) subpage of the Discipline Disparities page regarding some of the problems facing school districts operating under agreements with the DOE where the latter believes that modifications to practices under the agreement will tend to reduce relative racial differences in suspensions and the proportions racial minorities make up of persons suspended.

Turning to criminal justice disparities issues, such as those that have been the addressed in DOJ investigations of police departments in Ferguson, Baltimore, and Chicago, one of the more striking figures cited in the DOJ report on Ferguson police and court practices was the 97 percent African Americans made up of persons involved in traffic stops who were arrested solely for having an outstanding warrant. And one of Ferguson's court procedures the report regarded as especially harsh was that whereby a single missed court appearance triggered issuance of an arrest warrant. The 97 percent figure is not the same as the proportion African Americans made up of persons against whom warrants were issued for one or more missed court appearances, though one can assume that the latter proportion is also very high. Yet, if one understands the patterns described above, one can also assume with virtual certainty that if the court policy were changed to one whereby only a second missed court appearance triggers issuance of a warrant, the proportion would increase. And as suggested at page 6 of the March 9, 2015 [letter](#) to DOJ and the City of Ferguson (in the discussion of an interpretive issue arising from the failure to understand issues addressed in this letter and its references), if in Ferguson African American drivers tended to exceed the speed limit more often than white drivers, increasing the number of miles per hour above a posted limit as the threshold for stopping a driver for speeding would tend to increase the proportion African Americans make up of persons stopped for speeding.

Similarly, in the case of the very high proportion African Americans made up of persons against whom force was used in Chicago cited in the report on the city's police practices issued by DOJ on January 13, 2017, the restrictions on the use of force that the same report suggested were appropriate would almost certainly increase that proportion. See the March 20, 2017 Federalist Society Blog [post](#) regarding figures cited in the report on Chicago.

¹¹ Reportage of situations where general reductions in discipline rates have been accompanied by reduced racial differences in discipline rates have generally pertained to studies that measured disparities in terms of absolute differences between rates. As discussed in my September 12, 2016 [letter](#) to the Antioch (CA) Unified School District, absolute differences between rates tend to decline when outcomes in the rate ranges commonly observed for adverse school discipline outcomes generally decline.

Increases in relative differences in adverse outcomes or the proportions more susceptible groups make up of persons experiencing those outcomes do not have always to occur as a result of modifications to practices ordained by the Baltimore decree or like decrees in other jurisdictions. Limiting arrests for particular types of crimes or reducing police presence or aggressiveness of enforcement in particular neighborhoods could affect measures of difference in a variety of ways. And, of course, to the extent that any observed disparity is a result of racial bias, and modifications to practices reduce that bias, all measures of racial differences will be reduced.

But typically reducing the frequency of an outcome will tend to affect measures of disparity in accordance with the patterns described above, especially with respect to actions that involve limiting the adverse outcomes in the way that relaxing a standard does (which, with regard to police or court practices, means raising the standard for imposition of the adverse outcome). See my "[Mired in Numbers](#)," *Legal Times* (Oct. 12, 1996), regarding the fact that changing a three-strikes rule to a four strikes rule will almost certainly increase the proportion African Americans make up of persons who are sentenced pursuant to such a rule.¹² But regardless of how often one may find departures from these patterns, the government cannot effectively enforce civil rights laws without understanding the patterns, and it certainly cannot rationally monitor consent decrees while mistakenly believing that generally reducing adverse outcomes will tend to reduce relative racial differences in rates of experiencing the outcomes.

In fact, to rationally monitor decrees or effectively enforce civil rights generally, one must understand that, in a situation where the two rows of Table 1 reflect favorable and adverse outcome rates of members of the public interacting with two police officers, there is no basis for distinguishing between the officers as to the likelihood that that they engaged in biased policing. One must also know that, all else being equal, officers who try hardest to limit adverse interactions with the public will tend to show patterns more like those in row 2 than in row 1, while other officers will tend to show patterns more like those in row 1 than in row 2.

Otherwise, I refer you to the description of the compliance difficulties facing the Baltimore Police Department and its officers under the proposed (now entered) consent decree covering Baltimore police practices in the February 8, 2017 Federalist Society Blog post titled "[Compliance Nightmare Looms for Baltimore Police Department](#)," (a PDF of which is available [here](#)), on which my March 7, 2017 [Comments](#) to the court are primarily based. As to the compliance difficulties facing the Ferguson Police Department under a consent decree entered in the Eastern District of Missouri in April 2016 in *United States v. City of Ferguson*, No. 4:16-cv-180-CDP, I refer you to my April 11, 2016 [Submission](#) in that case.

¹² See my "[An Issue of Numbers](#)," *National Law Journal* (Mar. 5, 1990), and [The Perils of Provocative Statistics](#)," *Public Interest* (Winter 1991) regarding the fact that the high proportion African Americans make up of persons disqualified from intercollegiate athletics by the NCAA's Proposition 48 was a reflection of the leniency rather than the stringency of the standard. And as with the modification of a three strikes rule, relaxing the NCAA standard would almost certainly increase the proportion African Americans make up of persons experiencing the adverse outcome. But these things are no better understood today than they were when these articles were written.

Regarding other matters where the misunderstanding discussed in this section is pertinent, I refer you to the discussion in January 4, 2017 Federalist Society Blog post titled "[Will Trump Have the First Numerate Administration?](#)" concerning the emphasis in the DOJ's November 28, 2016 brief in *Abbott v. Veasey*, Sup Ct. No. 16-393,¹³ on difficulties in securing an acceptable ID and the large percentage differences between rates at which whites and African Americans failed to secure one. But the greater the difficulty in securing an ID, the smaller (not larger) will tend to be relative racial/ethnic differences in failing to do so. With regard to the effects of sentencing reform on measures of racial/ethnic differences in incarceration, I refer you to the Federalist Society Blog posts of August 5, 2016 titled "[Things the President Doesn't Know About Racial Disparities](#)," and March 20, 2017 titled "[Racial Impact Statement Laws in New Jersey and Elsewhere](#)." The latter item emphasizes the guidance DOJ can give to states on measures aimed at reducing racial differences in incarceration rates, but only after DOJ comes to understand issues better than it now understands them.

Other matters where the misunderstanding that is the principal subject of this section is pertinent are discussed my April 23, 2012 [letter](#) to the agency and many more such subjects are discussed in "[Race and Mortality Revisited](#)," *Society* (July/Aug. 2014) and the materials it references.¹⁴

In the introduction to this letter, I suggested some things DOJ would be obligated to do upon coming to recognize that its understanding of this matter (an understanding the agency has imparted to so many other entities) is manifestly incorrect. To take two simple examples, having for so long led lenders and public schools to believe that relaxing standards will tend to reduce relative racial/ethnic differences in adverse borrowing and adverse school discipline outcomes, the government can hardly justify failing to inform such entities that its views on these subjects were mistaken. I suggest, however, that there may be many areas that I have not considered where there exist similar obligations to take corrective action.

B. Problems in Standard Statistical Analyses of Discrimination Issues

Almost all analyses of demographic differences involving rates of experiencing adverse or favorable outcomes, whether involving discrimination issues or any other matter, have been undermined by a failure to understand and address patterns by which the measures employed (including measures other than the relative measures discussed above) tend to be affected by the frequency of an outcome. This subject is treated at length in "[Race and Mortality Revisited](#)," the ASA [letter](#), and the CEBP [comments](#), and the materials referenced in those items. Recommendation 4 (at 45-46) of the CEBP comments discusses an approach that may somewhat

¹³ The post erroneously refers to the brief as an *amicus curiae* brief. It was a brief in opposition. The government is a party in the case.

¹⁴ "[Getting it Straight When Statistics Can Lie](#)," *Legal Times* (June 23, 1993), previously mentioned for its discussions of lending disparities issues, also discusses several employment issues with regard to the failure of observers (or a court) to understand that making it easier for all employees to keep their jobs will tend to increase relative demographic differences in rates of failing to keep the jobs.

address this issue with regard to some types of government-funded research. Whether or not that recommendation satisfactorily addresses the matter as to government-funded research, it does not satisfactorily address the matter with regarding to analyses of discrimination issues for civil rights law enforcement purposes. In addition, many analyses of discrimination issues, whether involving binary or continuous outcomes, examine data solely on persons who accepted some outcome or situation. These analyses are fundamentally unsound because they fail to examine data on all persons subject to the processes at issue.

With regard to the former subject, if one has the actual rates at which two groups experience some outcome, one may be able to quantify the strength of association reflected by those rates (something I have also described as the strength of the forces causing the rates to differ or the difference in the circumstances of the groups reflected by their favorable or adverse outcome rates). A method for doing so that is theoretically unaffected by the frequency of an outcome is given substantial attention in "Race and Mortality Revisited," the Kansas Law [paper](#), the TDHCA [brief](#), and many other recent materials, including the methods workshops listed at the end of the Introduction. For instant purposes, it is unnecessary to discuss whether the suggested approach is the best method or is even a satisfactory method for quantifying the strength of an association for law enforcement or any other purpose. But it is crucial to understand that one must have the actual rates at which groups experience a particular outcome in order to quantify the effects of being in a particular demographic group¹⁵ or to draw sound inferences about processes or the likelihood of discrimination in particular settings.

Thus, it is also necessary to understand that one cannot analyze a discrimination issue based solely on the information regarding the proportion a group makes up of persons potentially experiencing an outcome and the proportion it makes up of persons actually experiencing the outcome, though this is quite common way of analyzing many discrimination issues. This subject is discussed in the Section C (at 23-26) of the Kansas Law paper, Section I.B (at 23-27) of the TDHCA brief, and Section I.C (at 39-41) of the CEBP comments.

A particular problem in analyses of racial differences in criminal justice outcomes, which are very often analyzed in terms of differences between the referenced proportions, is that sometimes it is quite difficult to identify the appropriate numerator and denominator in order calculate the rates at which members of the groups being compared experience an outcome. See the Addendum to the [Ferguson, Missouri Arrest Disparities](#) subpage of the Discipline Disparities page of [jpscanlan.com](#) regarding my uncertainty as to how that issue can be addressed.

The problem with analyses of discrimination issues that examine data solely on persons who accepted some outcome or situation is addressed in Section F (at 32-35) of the Kansas Law paper, Section I.C (at 27-30) of the TDHCA brief, and Part II (at 41-43) of the CEBP comments. This problem has been present in almost all race or gender discrimination suits that have yielded recoveries in excess of \$50 million dollars. With regard to the so-called job segregation or

¹⁵ It is important to understand that the strength of an association reflected by a pair of rates involves a different issue from that of whether any observed difference is statistically significant. See Section D (at 26-27) regarding the way preoccupation with statistical significance issues has long undermined analyses of many discrimination issues.

assignment discrimination cases that were prominent in the late 1980s and the 1990s, see my "[Illusions of Job Segregation](#)," *Public Interest* (Fall 1988), "[Are Bias Statistics Nonsense?](#)" *Legal Times* (Apr. 17, 1989), "[Unlucky Stores: Are They All Guilty of Discrimination?](#)" *San Francisco Daily Journal* (Jan. 29, 1993), "[Multimillion-Dollar Settlements May Cause Employers to Avoid Hiring Women and Minorities for Less Desirable Jobs to Improve the Statistical Picture](#)," *National Law Journal* (Mar. 27, 1995). With regard to the large monetary settlements DOJ secured from Countrywide Financial Services and Wells Fargo Bank based on claims involving assignment of loans to subprime status or other loan cost issues, see my "[The Perverse Enforcement of Fair Lending Laws](#)," *Mortgage Banking* (May 2014), and "[Fair Lending Studies Paint Incomplete Picture](#)," *American Banker* (April 24, 2013).

A recent treatment of this subject with regard to a private putative class action regarding pay equity at a prominent New York law firm, and which mentions the \$54 million settlement DOJ secured against JP Morgan Chase Bank on January 18, 2017, may be found in my "[Partial Picture Issue Undermines Chadbourne Pay Equity Case](#)," *Law360* (Jan. 25, 2017). The points discussed in that item would apply as well to the pay equity claims in an administrative complaint that the Department of Labor filed the same day against JP Morgan Chase Bank.

The issues addressed in this section are quite complicated. As I suggested in the Introduction, the DOJ should form a committee to address these issues and should include on such committee representatives of other agencies whose activities involve the interpretation of data on demographic differences. In that regard, I note that I mentioned at the outset that more than a decade ago the National Center for Health Statistics recognized that improvements in health and healthcare, while tending to reduce relative differences in favorable health and healthcare outcomes, will tend to increase relative differences in adverse health and healthcare outcomes. As discussed in "Race and Mortality Revisited," however, the NCHS's actions based on the understanding were not sensible ones, and other agencies involved in health and healthcare research have yet even to shown an awareness that NCHS came to recognition. See also my "[The Mismeasure of Health Disparities](#)," *Journal of Public Health Management and Practice* (July/Aug. 2016) and "[Measuring Health and Healthcare Disparities](#)," Proceedings of Federal Committee on Statistical Methodology 2013 Research Conference (March 2014). In my view, nothing the federal government has so far produced regarding health and healthcare disparities can be regarded as statistically sound or useful for informing policy. Thus, there are many parts of the federal government that would benefit from an effort to reform the analyses of demographic differences by a committee in which I suggest that DOJ should take a lead.

The mission of the committee will have to be carefully specified. Otherwise, guidance produced by the committee, like virtually all guidance on measurement of demographic differences in outcome rates so far produced, not only will fail to address the crucial issues, but will give the false impression that no such issues exist. See "Race and Mortality Revisited" (at 343-344) and "The Mismeasure of Health Disparities" (at 419).

Many of these issues were raised in my comments to the Commission on Evidence-Based Policymaking, and the Commission is scheduled to provide a report to the legislative and

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executive branches at the end of the summer. Possibly the Commission will provide something useful regarding these issues. I do not, however, hold strong hopes in that regard. In any case, I suggest that, given the challenges the DOJ and other agencies involved with discrimination issues face on a daily basis, DOJ should not defer action while awaiting a report of the Commission.

Further, the complexity of the larger issues is not a reason to delay at all the actions warranted to correct the consequences of the DOJ's longstanding misunderstanding of the effects of reducing the frequency of an outcome on relative differences in rates of experiencing the outcome and the proportions groups most susceptible to the outcome make up of persons experiencing it. The agency should address that matter immediately in Baltimore and elsewhere.

Sincerely,

/s/ James P. Scanlan

James P. Scanlan