

**Materials Associated With Federalist Society Teleforum Titled “[Are Existing Civil Rights Policies Based on a Statistical Understanding That Is the Opposite of Reality?](#)”
(July 24, 2017)**

Principal subject – civil rights enforcement policies based on a statistical understanding that is the opposite of reality

For decades civil rights enforcement policies involving lending, school discipline, criminal justice, voting, and employment have been based on the belief that relaxing standards or otherwise reducing the frequency of various adverse outcomes will tend to *reduce*

(a) relative (percentage) differences between rates at which more and less susceptible groups experience those outcomes, and

(b) the proportions more susceptible groups make up of persons experiencing the outcomes.

In fact, reducing any adverse outcome tends to *increase*, not reduce, both (a) and (b) as to the outcome. Because of the government’s misunderstanding of this matter, there are many situations where by acceding to government encouragements to relax standards entities covered by civil rights laws increase the chances that the government will sue them for discrimination.¹

Part of a larger failure of understanding.

The failure of understanding discussed here is part of a larger failure of understanding among persons analyzing demographic differences. Virtually all analyses of demographic differences in outcome rates are unsound for failure to recognize (and address) the ways the measures employed tend to be affected by the frequency of an outcome.²

Essentially all analyses of discrimination issues involving rates of experiencing some favorable or adverse outcome are fundamentally unsound.³ That is so whether the issue is characterized as disparate impact or disparate treatment.

The points discussed here apply only to discrimination/disparate impact issues involving rates of experiencing some outcome or its opposite (*i.e.*, mortgage approval/mortgage rejection, hire/non-

¹ See, e.g., “[Misunderstanding of Statistics Leads to Misguided Law Enforcement Policies](#),” *Amstat News* (Dec. 2012); “[The Paradox of Lowering Standards](#),” *Baltimore Sun* (Aug. 5, 2013); “[Things government doesn’t know about racial disparities](#),” *The Hill* (Jan. 28, 2014); “[Things DoJ doesn’t know about racial disparities in Ferguson](#),” *The Hill* (Feb. 22, 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); “[Racial Impact Statement Laws in New Jersey and Elsewhere](#),” *Federalist Society Blog* (Mar. 20, 2017).

² See [Comments for Commission on Evidence-Based Policymaking](#) (Nov. 14, 2016); “[The Mismeasure of Health Disparities](#),” *Journal of Public Health Management and Practice* (July/Aug. 2016); “[Race and Mortality Revisited](#),” *Society* (July/Aug. 2014).

³ See [The Mismeasure of Discrimination](#),” Faculty Workshop, University of Kansas School of Law (Sept. 2013); [Amicus Curiae Brief in Texas Department of Housing and Community Development, et al. v. The Inclusive Communities Project, Inc.](#), Supreme Court No. 13-1731 (Nov. 17, 2014); “[The Perverse Enforcement of Fair Lending Laws](#),” *Mortgage Banking* (May 2014); “[The Mismeasure of Discrimination](#),” Methods Workshop, Center for Demographic and Social Analysis, University of California, Irvine (Jan. 20, 2015).

hire). They do not apply to analysis of continuous variables like salary and loan costs (save when those variables are functions of dichotomies).

Most analyses of discrimination issues involving continuous variable are unsound, however, because they fail to examine the entire universe of persons subject to the process at issue.⁴

Key statistical pattern and its corollary

Inherent in most distributions of factors associated with experiencing some outcome or its opposite is a pattern whereby the rarer an outcome

(a) the greater tends to be the relative (percentage) difference in experiencing it, and

(b) the smaller tends to be the relative difference in avoiding it (*i.e.*, experiencing the opposite outcome).

By way of the simplest of examples, and as will be shown, lowering a test cutoff tends to increase relative differences in failure rates at the same time that it reduces relative differences in pass rates.

A corollary pattern is that whereby the rarer an outcome, the greater tend to be the proportion the group more susceptible to the outcome makes up of both persons who experience the outcome and persons who avoid the outcome. Thus, reducing an out tends to

(a) *increase* all measures of difference between the proportion that group makes up of persons potentially experiencing the outcome (the pool) and the proportion it makes up of persons actually experiencing the outcome, and

(b) *reduce* all measures of difference between the proportion that group makes up of the pool and the proportion it makes up of persons avoiding the outcome.

Some more obvious implications

Relaxing lending, discipline, educational, or job hiring or performance standards, while tending to reduce relative differences in meeting the standards, will tend to increase relative differences in failing to meet the standards.

Limiting the circumstances where a police officer may use force in the course of an arrest, while tending to reduce relative differences in rates at which arrestees avoid the use of force, will tend to increase relative differences in rates at which arrestees are subject to the use of force.

⁴ See references in prior note. See also "[Partial Picture Issue Undermines Chadbourne Pay Equity Case](#)," Law360 (Jan. 25, 2017).

Changing a three-strikes law to a four-strikes law, while tending to reduce relative differences in rates of avoiding being sentenced under the law, will tend to increase relative differences in being sentenced under the law.

Reducing the difficulties of securing a proper voter ID, while tending to reduce relative differences in securing such an ID, will tend to increase relative differences in failing to secure it.

Some less obvious implications

Relative differences in mortgage rejection rates and loan foreclosure or will tend to be larger, while relative differences in mortgage approval rates and rates of avoiding foreclosure will tend to be smaller, among higher-income than lower-income borrowers/mortgagees.

Relative differences in suspensions will tend to be comparatively large, while relative differences in rates of avoiding suspension will tend to be comparatively small, in suburbs and other places where suspension rates are comparatively low.⁵

Relative racial differences in suspensions will tend to be greater, while relative differences in rates of avoiding suspensions will tend to be smaller, among girls than boys. Gender differences in suspensions will tend to be larger, while gender differences in avoiding suspensions will tend to be smaller, among whites than blacks.⁶

Relative differences in selection rates (for hire, loans, or anything else) will tend to be smaller, while relative differences in rejection rates will tend to be larger, among applicants with higher qualifications than among applicants with lower qualifications.

Relative differences between callback rates of persons with criminal records will tend to be greater, while relative differences rates of receiving no callback will tend to be smaller among, among blacks than whites. Relative racial differences between callback rates will tend to be larger, while relative racial differences between rates of receiving no callback will tend to be smaller, among persons with criminal records than persons without criminal records.⁷

All other things being equal, the police officer who is more circumspect about the use of force will tend to show larger relative differences in the use of force, though smaller relative differences in avoiding the use of force than, than the police officer who is less circumspect about the use of force.

Observers will draw inferences about processes on the basis of the comparative size of relative differences in different settings or for different subgroups based on whichever of

⁵ See [Suburban Disparities](#) subpage of the [Discipline Disparities](#) page; [Letter to Boston Lawyers' Committee for Civil Rights and Economic Justice](#) (Nov. 12, 2015)

⁶ See [Discipline Disparities](#) page of [jpscanlan.com](#).

⁷ See Table 7 of "[Race and Mortality Revisited](#)," Society (July/Aug. 2014) and the [Criminal Record Effects](#) subpage of the Scanlan's Rule page of [jpscanlan.com](#).

the relative differences (for the favorable or the corresponding adverse outcome) they happen to be examining. For example, some may draw inferences from the fact that having high income reduces mortgage rejection rates proportionately more for white than blacks while other draw inferences from the fact that having high income increases mortgage approval rate proportionately more for blacks than whites. They will invariably do so without imagining that examining the comparative size of the relative difference for the opposite outcome would support a very different, if not opposite, inference, much less that this will typically be the case.

No more than a handful of persons analyzing demographic differences recognize that it is even possible for relative differences in one outcome and relative differences in the corresponding opposite outcome to change in opposite direction as the frequency of an outcome changes.

Table 1a. Illustration of effect of lowering test cutoff on relative (percentage) difference between pass rates of advantaged group (AG) and disadvantaged group (DG) – Basic terms with AG pass rate in numerator of pass rate ratio

AG Pass Rate	DG Pass Rate	AG/DG Pass Ratio
80%	63%	1.27

AG pass rate is 1.27 times (27% greater than) DG pass rate.

The purpose of this table is simply to explain the terms and show the relationship of the relative difference to the rate ratio where the larger of the two figure is used as the numerator in the rate ratio

Table 1b. Illustration of effect of lowering test cutoff on relative (percentage) difference between pass rates of advantaged group (AG) and disadvantaged group (DG) – Pass rate ratios at high and low cutoffs

Cutoff	AG Pass Rate	DG Pass Rate	AG/DG Pass Ratio
1 High	80%	63%	1.27
2 Low	95%	87%	1.09

- At higher cutoff, AG pass rate is 1.27 times (27% greater than) DG pass rate.
- At lower cutoff, AG pass rate is 1.09 times (9% greater than) DG pass rate.
- Lowering cutoff reduced relative differences in pass rates.

The purpose of this table is simply to show how lowering a test cutoff tends to reduce relative differences in pass rates. This pattern is well understood. That understanding underlies the view that lowering a test cutoff tends to reduce the disparate impact of tests on which some groups outperform others.

Table 1b', on the final page of this document, explains, for the benefit of those accustomed to seeing the disadvantaged group's rate in the numerator of the rate ratio for passing a test of other favorable outcome (as with the four-fifth rule of the Uniform Guidelines on Employee Selection Procedures) that, while I prefer the larger figure in rate ratio, choice of numerator in the rate ratio is irrelevant to the issues addressed here .

Table 2. Illustration of effects of lowering a test cutoff on (a) relative differences between pass rates of AG and DG and (b) relative differences between failure rates of AG and DG

Cutoff	(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
1 High	80%	63%	20%	37%	1.27	1.85
2 Low	95%	87%	5%	13%	1.09	2.60

Column 5 shows that lowering cutoff *reduces* pass rate ratio from 1.27 to 1.09 (i.e., reduces relative difference from 27% to 9%)

Column 6 shows that lowering cutoff *increases* failure rate ratio from 1.85 to 2.60 (i.e., increases relative differences from 85% to 160%)

The purpose of this table is to show how lowering a test cutoff tends to (a) reduce relative differences in pass rates and (b) increase relative differences in failure rates.

While most persons dealing with discrimination issues are aware of (a), virtually no one is aware of (b).

Table 3. Illustration of effects of lowering a test cutoff on (a) relative differences between pass rates of AG and DG, (b) relative differences between failure rates of AG and DG, and (c) proportion DG makes up of persons who pass and persons who fail (where DG makes up 50% of test takers)

Cutoff	(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 High	80%	63%	20%	37%	1.27	1.85	44%	65%
2 Low	95%	87%	5%	13%	1.09	2.60	48%	72%

- **Relative differences – already shown in Table 2**
- **Column 5 shows that lowering cutoff *reduces* pass rate ratio from 1.27 to 1.09 (i.e., reduces relative difference from 27% to 9%) (column 5)**
- **Column 6 shows that lowering cutoff *increases* failure rate ratio from 1.85 to 2.60 (i.e., increases relative differences from 85% to 160%)**
- **Proportions DG makes up of persons who pass and fail – what this table adds**
- **Column 7 shows that lowering cutoff *increases* the proportion DG makes up of persons who pass from 44% to 48% (thus, *reducing* differences between proportion DG makes up of pool and proportion it makes up of persons who pass).**
- **Column 8 shows that lowering cutoff *increases* the proportion DG makes up of persons who fail from 65% to 72% (thus *increasing* difference between DG proportion of pool and DG proportion of persons who pass).**

This table is the same as Table 1 of the April 13, 2017 [Letter to Department of Justice](#) (Sessions letter)

Table 3 (repeated). Illustration of effects of lowering a test cutoff on (a) relative differences between pass rates of AG and DG, (b) relative differences between failure rates of AG and DG, and (c) proportion DG makes up of persons who pass and persons who fail (where DG makes up 50% of test takers) (with measures commonly examined in the contexts at issue here highlighted)

Cutoff	(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 High	80%	63%	20%	37%	1.27	1.85	44%	65%
2 Low	95%	87%	5%	13%	1.09	2.60	48%	72%

Some observations about Table 3

Observers focused on the favorable outcome would maintain that lowering the cutoff reduced the disparate impact of the test (columns (5) and (7)). Persons focused on the adverse outcomes would maintain that lowering the cutoff increased the disparate impact of the test (columns (6) and (8)). Whether lowering the cutoff in fact increased or decreased the disparate impact is more complicated.⁸

Assuming the two rows of Table 3 are based on the favorable and adverse outcome rates of two decision-makers, there is no rational basis for maintaining that one decision-maker is more likely to have engaged in discrimination than the other.

Assuming the two rows reflect the favorable and adverse outcome rates as to the use of force by police officers or suspensions by school administrators, other things being equal, the more the actors follow guidance to limit adverse outcomes the more their results will be like those in row 2 than row 1 – that is, will show larger relative differences in adverse outcomes and will show more susceptible groups making up higher proportions of persons experiencing the adverse outcomes. Focus will commonly be on columns (6) or (8).

In many settings where the principal focus is on adverse outcomes, at least some matters are commonly examined in terms of favorable outcomes. The Baltimore Police consent decree, in addition to addressing criminal justice issues, addresses issues regarding disparate impact in hiring. These can involve matters sometimes examined in terms of relative differences in favorable outcomes (as with tests) or relative differences in adverse outcomes (as with disqualifying criteria). The Ferguson Police consent decree addresses criminal justice and employment issues with regard both to matters that are commonly examined in terms of relative differences in adverse outcomes and matters that are commonly examined in terms of relative differences in favorable outcomes.⁹

⁸ See [The Mismeasure of Discrimination](#),” Faculty Workshop, University of Kansas School of Law (Sept. 2013) (Section E); [“Is the Disparate Impact Doctrine Unconstitutionally Vague?”](#) Federalist Society Blog (May 6, 2016).

⁹ See [Comments of James P. Scanlan on \(Baltimore\) Consent Decree Monitor Selection](#) (June 26, 2017); [Submission of James P. Scanlan re Ferguson Consent Decree](#) (Apr. 11, 2016).

Table 4. Illustration of effects of lowering an income requirement on relative differences between white and black rates of meeting the requirement and relative differences between black and white rates of failing to meet the requirement (based on published income data)

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

Column 5 shows how lowering the requirement *reduces* relative differences in rates of meeting the requirement.

Column 6 shows how lowering the requirement *increases* the relative difference in rates of failing to meet the requirement.

This table is the same as Table 2 of the Sessions letter.

Table 5. 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

Column 5 shows how lowering the requirement *reduces* relative differences in rates of meeting the requirement

Column 6 shows how lowering the requirement *increase* the relative difference in rates of failing to meet the requirement

This table is the same as Table 3 of the Sessions letter.

Table 6. Illustration of effect of giving all persons a reprimand instead of their first suspension on proportion black students make up of persons experiencing one or more suspensions

Setting	Outcome	Black Proportion of Students Experiencing the Outcome
K-12	One or more suspensions	37%
K-12	Two of more suspensions	43%
Preschool	One or more suspensions	44%
Preschool	Two of more suspensions	48%

Final column shows that giving all students a reprimand for what would otherwise be their first suspension would increase the proportion black students make up of suspended K-12 students from 37 percent to 43 percent and the proportion black students make up of suspended preschool students from 44% to 28%.

*Blacks make up 16% of K-12 students and 18% of preschool students. These figures are not included because they are irrelevant to the point. See references in note 2 regarding the fact that one may be able to quantify differences in the circumstances of two groups reflected by their outcome rates (or, otherwise put, the strength of the forces causing the outcome rates to differ) when one has the actual outcome rates, one can never quantify such differences based solely on information as to the proportion a group makes up of persons potentially experiencing an outcome and the proportion the group makes up of persons actually experiencing the outcome.¹⁰ See Table 8 of “[Race and Mortality Revisited](#),” *Society* (July/Aug. 2014), regarding a comparison of preschool and K-12 racial differences in multiple suspensions (showing that, to the extent, the strength of the forces causing black and white outcome rates to differ can be measured, it is about the same in the two settings).*

¹⁰ See also [IDEA Data Center Disproportionality Guide](#) subpage of the [Discipline Disparities](#) page of [jpscanlan.com](#) and slides 53 to 50 of [Irvine](#) workshop.

Table 7. Change in black proportion of persons searched by U.S. Customs Service between 1998 and 2000 (a period during which the Service enacted reforms restricting the use of searches, including by, inter alia, requiring supervisory approval for intrusive searches)

Year	Total Searches	Black Searches	Black Proportion of Persons Searched
1998	43,606	6,141	14.1%
2000	9,020	2,441	27.1%

Data in the table are from June 28, 2001 Washington Post article titled “[New Policies Aim to Discourage Racial Profiling](#).” The article discussed that between 1998 and 2000 the U.S. Customs Service implemented a number of reforms aimed at reducing racial disproportionality in searches by generally restricting the use of searches. Reforms included requiring supervisory approval for intrusive searches. The article discussed the program, which dramatically reduced the number of searches, as one that in fact was reducing racial disproportionality. The proportion blacks made up of persons passing through Customs was not known for either year. But presumably that proportion would be similar in the two years.

The pages that follow contain annotated bibliographies and some other referential information mainly pertaining to the central issues of addressed in the teleforum as it bears on the following subjects: (a) lending/foreclosure issues; (b) public school discipline issue; (c) criminal justice issues; (d) employment issues; (e) voter ID issues. Treatments regarding matters are related to the subjects addressed here but do not involve the main statistical issues denoted with a red asterisk

Lending and Foreclosure Issues

- A. [Lending Disparities](#) page of [jpscanlan.com](#) and its subpages
- B. Some early treatments of perceptions about relative differences in mortgage rejection rates
1. "[Bias Data Can Make the Good Look Bad](#)," *American Banker* (Apr. 27, 1992)
 2. "[When Statistics Lie](#)" (*Legal Times*, Jan. 1 1996)
(discusses putative class action against Washington, DC lender that study found to show largest relative racial differences in mortgage rejection rates in DC area)
 3. "[Perils of Using Statistics to Show Presence or Absence of Loan Bias](#)," *American Banker* (Jan. 3, 1997)
 4. "[Race and Mortality](#)," *Society* (Jan./Feb. 2000)
- C. Treatments of perceptions about relative differences in assignment to subprime status or differences in loan terms (with focus on large recoveries against Countrywide Financial and Wells Fargo Bank)
1. [The Lending Industry's Conundrum](#)," *National Law Journal* (Apr. 2, 2012)
(“conundrum” involves fact that government expect lenders to reduce rates of assignment to subprime status while measuring compliance on basis of relative differences to subprime status)
 2. "[Disparate Impact': Regulators Need a Lesson in Statistics](#)," *American Banker* (June 5, 2012)
 3. "[Misunderstanding of Statistics Leads to Misguided Law Enforcement Policies](#)," *Amstat News* (Dec. 2011)
 4. "[The Perverse Enforcement of Fair Lending Laws](#)," *Mortgage Banking* (May 2014)
 5. "[Partial Picture Issue Undermines Chadbourne Pay Equity Case](#)," *Law360* (Jan. 25, 2017)
 6. Amicus curiae [brief](#) of James P. Scanlan in *Texas Department of Housing and Community Development, et al. v. The Inclusive Communities Project, Inc.*, Supreme Court No. 13-1731 (Nov. 17, 2014)
(Items 4 to 6 discuss the impossibility of analyzing a discrimination case based solely on information on persons who accepted some outcome or situation)*
- D. [Bank of America Corp. et al. v. City of Miami, Florida](#), Nos. 15-1111, 15-1112 (May 1, 2017)

Decision upholds cause of action of cities for financial harm resulting from concentration of foreclosure in minority neighborhoods alleged to be result of discrimination in lending terms. Arguments in case reflect all the misunderstandings discussed in references in Section C plus failure to recognize that the fewer foreclosures there are (and the more lenient are banks foreclosure practices) the larger will tend to be relative racial differences in foreclosures and the more the foreclosures will be concentrated in minority neighborhoods. Similarly the Home Affordable Modification Program (HAMP) and other measures aimed at generally reducing

foreclosures (see June 7, 2017 Consumer Financial Protection Board [Consent Order](#) with Fay Servicing, Inc., requiring compliance with rules on providing information to delinquent borrowers on ways to avoid foreclosure will tend to increase relative racial differences in foreclosure rates and concentration of mortgage foreclosure in minority neighborhoods). Some of the obligations the defendants assumed under \$25 billion settlement with the DOJ and 49 state attorneys general addressing mortgage loan servicing and foreclosure abuses unrelated to claims of discrimination would, by generally reducing foreclosures tend to tend to increase relative racial differences in foreclosure rates and concentration of mortgage foreclosure in minority neighborhoods.

E. Pertinent Correspondence to Federal Government

1. [United States Department of Justice](#) (Apr. 23, 2012)
2. [Federal Reserve Board](#) (March 4, 2013)
3. [Investigations and Oversight Subcommittee of House Finance Committee](#) (Dec. 4, 2013)
4. [Financial Markets and Community Investment Program, Government Accountability Office](#) (Sept. 9, 2014)

Educational Discipline/Achievement Issues

One overriding consideration implicit in the materials referenced in Section A through D below, regarding education issues is that, having misled lawmakers and school authorities to believe that relaxing standard and otherwise reducing the frequency of adverse discipline outcome will tend to reduce relative differences in discipline rates and the proportions more susceptible groups make up of persons disciplined, the Departments of Education, Health and Human Services, and Justice have an obligation to explain to such entities that the opposite is the case. An overriding consideration implicit in the materials in Sections A through E, is that the Department of Education should suspend all funding into the analyses of demographic differences regarding education outcomes until it is satisfied that the analyses are sound. See fourth recommendation in [Comments](#) for Commission on Evidence-Based Policymaking (at 45-46).

A. Treatments of Misperceptions about Relationship of Stringency of Standards and Measures of Demographic Differences

1. Discipline Disparities page of jpscanlan.com
2. "[Misunderstanding of Statistics Leads to Misguided Law Enforcement Policies](#)," *Amstat News* (Dec. 2012);
3. "[The Paradox of Lowering Standards](#)," *Baltimore Sun* (Aug. 5, 2013);
4. "[Things government doesn't know about racial disparities](#)," *The Hill* (Jan. 28, 2014).

B. Jurisdictions Where Recent Reductions in Discipline Rates Have Been Accompanied by Increased Relative Differences in Discipline Rates (subpages of Discipline Disparities Page)

1. [California Disparities](#)
2. [Colorado Disparities](#)
3. [Connecticut Disparities](#)
4. [Florida Disparities](#)
5. [Maryland Disparities](#)
6. [Minnesota Disparities](#)
7. [Oregon Disparities](#)
8. [Rhode Island Disparities](#)
9. [Utah Disparities](#),
10. [Beaverton, OR Disparities](#)
11. [Denver Disparities](#)
12. [Henrico County, VA Disparities](#)
13. [Los Angeles SWPBS](#)
14. [Minneapolis Disparities](#)
15. [Montgomery County, MD Disparities](#),
16. [Portland, OR Disparities](#)
17. [St. Paul Disparities](#)
18. [South Bend Disparities](#)

C. Correspondence to Entities Whose Activities are Affected by the Misunderstanding of Relationship Between Stringency of Standards and Relative Differences in Discipline Rates

1. [Department of Justice](#) (Apr. 13, 2017)
2. [Pyramid Equity Project](#) (Nov. 28, 2016)
(Letter discusses \$1 million DOE contract based on belief about effects of modification to discipline practices of relative racial differences in discipline rates)
3. [Oklahoma City School District](#) (Sept. 20, 2016)
(Letter discusses recent agreement that presents good illustration of situation where more the more district and its components comply with agreement, the more they will be deemed not to comply.)
4. [Antioch Unified School District](#) (Sept. 9, 2016)
5. [University of Oregon Institute on Violence and Destructive Behavior and University of Oregon Law School Center for Dispute Resolution](#) (July 5, 2016)
6. [University of Oregon Institute on Violence and Destructive Behavior and University of Oregon Law School Center for Dispute Resolution](#) (July 3, 2016)
6. [Houston Independent School District](#) (Jan. 5, 2016)
7. [Boston Lawyers' Committee for Civil Rights and Economic Justice](#) (Nov. 12, 2015)
(Letter addresses failure to understand that Massachusetts has large relative differences in discipline rates because it has low discipline rates; see University of Massachusetts Medical School Workshop titled "The Mismeasure of Health Disparities in Massachusetts and Less Affluent Places," ([abstract](#)))
7. [McKinney, Texas Independent School District](#) (Aug. 31, 2015)
8. [Department of Health and Human Services and Department of Education](#) (Aug. 24, 2015)
(Letter discusses DOE/HHS joint statement reflecting that fact reflects that HHS now thinks reducing frequency of an outcome tends to reduce relative differences in rates of experiencing an outcome even though its component National Center for Health Statistics recognized the opposite more than a decade ago.)
9. [Texas Appleseed](#) (Apr. 7, 2015)
10. [Vermont Senate Committee on Education](#) (Feb. 26, 2015)
11. [Portland, Oregon Board of Education](#) (Feb. 25, 2015)
12. [United States Department of Justice](#) (Apr. 23, 2012)
13. [United States Department of Education](#) (Apr. 18, 2012)

D. Treatments of Miscellaneous Discipline Issues

1. [Restraint Disparities](#) subpage of Discipline Disparities page
(Page way DOE perceptions about restraint disparities are the opposite of reality)
2. [Offense Type Issues](#) subpage of Discipline Disparities page
(Page discusses that failure to understand ways measures tend to be affected by the frequency of an outcome leads to mistaken inferences relating to likelihood of bias as a cause of discipline disparities.)
3. [DOE Equity Report](#) subpage of Discipline Disparities page

(Page discusses DOE report showing that racial disproportionality in expulsions is greater in districts without zero tolerance policies than in districts with zero tolerance policies.)

4. [APA Zero Tolerance Study](#) subpage of Discipline Disparities page *

(Page discusses dubious reasoning underlying belief that stringent discipline policies have adverse effects on educational outcomes/environments.)

E. Educational Outcomes Disparities Issues*

1. [Educational Disparities](#) page of [jpscanlan.com](#) and its subpages

2. [Letter to Education Trust](#) (April 30, 2014)

3. [Letter to Annie E. Casey Foundation](#) (May 13, 2014)

4. [Letter to New York City Center for Innovation through Data Intelligence](#) (June 6, 2016)

(These materials discuss that there is no sound research on educational outcomes, regardless of the measure employed. In the case of studies relying on relative differences, there is no recognition whatever that improvements in education tend to reduce relative differences in favorable outcomes (proficiency/grade promotion/graduation) while increasing relative differences in the corresponding adverse outcomes (non-proficiency/retention/failure to graduate). Very often of educational outcomes apart from discipline (especially as to proficiency) are measured in terms of absolute (percentage point) differences between rates, but invariably without recognition of the ways absolute differences tend to be affected by the frequency of out outcome. As uncommon outcomes increase in frequency, absolute differences tend to increase; as common outcomes increase in frequency absolute differences tend to decline. Thus, improvements in education tend to increase absolute differences in rates of achieving advanced proficiency or proficiency in very hard subjects (where proficiency rates are low), but reduce absolute differences in rates of achieving basic proficiency of proficiency in very easy subjects (where proficiency rates are often high).

Criminal Justice Issues

A. Treatments Regarding Mistaken Belief that General Lowering Incarceration Rates Will Reduce Proportions Racial Minorities Make Up of Prison Populations.

1. [“Things the President Doesn’t Know About Racial Disparities,”](#) Federalist Society Blog (Aug. 5, 2016)
2. [Letter to American Statistical Association](#) (July 25, 2016)
3. [“Racial Impact Statement Laws in New Jersey and Elsewhere,”](#) Federalist Society Blog (Mar. 20, 2017)

B. Treatments Regarding Misunderstandings Underlying Department of Justice Actions Regarding Ferguson, Missouri (report, decree), Baltimore, Maryland (report, decree), Chicago, Illinois (report, probably will not be a decree)

1. [Letter to United States Department of Justice](#) (Apr. 13, 2017)
2. [“Racial Impact Statement Laws in New Jersey and Elsewhere,”](#) Federalist Society Blog (Mar. 20, 2017)
3. [Letter to the Honorable James K. Bredar \(Judge handling Baltimore Consent Decree](#) (Feb. 14, 2017)
4. [“Compliance Nightmare Looms for Baltimore Police Department,”](#) Federalist Society Blog (Feb. 8, 2017)
5. [Submission of James P. Scanlan re Ferguson Consent Decree](#) (Apr. 11, 2016)
6. [“Things DOJ doesn’t know about racial disparities in Ferguson,”](#) *The Hill* (Feb. 22, 2016)
7. [Letter to United States Department of Justice and City of Ferguson, Missouri](#) (Mar. 9, 2015)

C. [Attorney General Jeff Sessions March 31, 2017 Memorandum Regarding Review Consent Decrees Etc.](#)

Memorandum calls for review of consent decrees and other agreements or activities regarding state and local law enforcement undertaken without yet understanding the statistical reasons call providing compelling reason to undertake such reviews.

Understanding of statistical issues addressed here would seem to require that DOJ advise all courts and parties to decrees/agreements of the extent to which the decrees agreements are based on a mistaken understanding of the effects of reducing adverse criminal justice outcomes on relative differences in rates of experiencing those outcome and proportions more susceptible groups make up of persons experiencing those outcomes.

Employment Discrimination Issues

A. The General Failure to Understand How to Measure Differences in Outcome Rates

1. "[The Mismeasure of Discrimination](#)," Faculty Workshop, University of Kansas School of Law (Sept. 20, 2013)
2. "[The Mismeasure of Discrimination](#)," Methods Workshop, Center for Demographic and Social Analysis, University of California, Irvine (Jan. 20, 2015).
3. "[Race and Mortality Revisited](#)," Society (July/Aug. 2014)
(See discussion regarding Tables 5 and 7)
(Items address the problematic nature of analyses of discrimination issues on the basis of relative difference in some favorable or adverse outcome and the impossibility of analyzing a discrimination issue on the basis of the difference between the proportion a group makes up of persons potentially experiencing an outcome and the proportion it makes up of persons actually experiencing an outcome.)

B. Misunderstanding Relating to Failure to Understand Effects of Reducing Adverse Outcomes on Measures of Difference Between Adverse Outcome Rates

1. "[Getting it Straight When Statistics Can Lie](#)," *Legal Times* (June 23, 1993
(Article discusses, inter alia, (a) Seventh Circuit case that regards large relative difference in termination for failure to meet performance standards (b) study that fails to grasp that procedural protections for employees tend to increase relative differences in terminations; (c) study that fails to grasp that improving performance for all employees will tend to increase relative differences in termination; (d) failure to recognize that reducing scope of rule calling for disqualifications because of criminal records will tend to increase relative differences in disqualifications)
2. [Jones v. City of Boston](#) Subpage of [Disparate Impact](#) page of jpscanlan.com
(Page discusses First Circuit decision that, in analysis of disparate impact claim, measured disparity in terms of larger relative difference in termination for failure of drug test while discussing small relative difference in passing drug test, but without recognizing that relaxing the policy would tend to increase relative differences in terminations.)
3. [Four-Fifths Rule](#) Subpage of [Disparate Impact](#) page of jpscanlan.com
(Page discusses that Uniform Guidelines on Employee Selection Procedures impliedly contemplates that lowering standards will tend to reduce the impact of a selection criterion until a certain point where further reductions will tend to increase the disparate impact – but without any understanding that lowering standards tends to increase relative differences in failing to meet the standard.)

C. Impossibility of Analyzing Discrimination Claims that Consider Data Solely on Persons Who Accepted Some Outcome or Situation*

1. "[Partial Picture Issue Undermines Chadbourne Pay Equity Case](#)," Law360 (Jan. 25, 2017)

2. "[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)
 3. "[Unlucky Stores: Are They All Guilty of Discrimination?](#)" *San Francisco Daily Journal* (Jan. 29, 1993)
 4. "[Are Bias Statistics Nonsense?](#)" *Legal Times* (Apr. 17, 1989)
 5. "[Illusions of Job Segregation](#)," *Public Interest* (Fall 1988)
- (Item 1 addresses problems in pay discrimination that fail to consider persons who refused an offer or left the organization; items 2 to 5 address claims based on the fact that putative victim group was hired into a job deemed less desirable than another job.)

Voter ID Issues

A. Misperception That Large Relative Differences in Failure to Secure a Voter ID Results From Difficulty Rather Than Ease of Securing an ID.

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)
2. "[Will Trump Have the First Numerate Administration?](#)" Federalist Society Blog (Jan. 4, 2017)

B. [Denial of Certiorari in Abbott v. Veasey](#), S. Ct. No. 16-393 (Jan. 23, 2017)

Case was returned to the district court to determine whether voter ID law was discriminatorily motivated. DOJ is a party. Assuming DOJ learns that, contrary to what it has previously suggested, reducing the difficulty of securing an ID would tend to increase the relative difference in failure to secure an ID, it would seem to have a duty to explain this to the district court and the other parties.

Table 1b'. Illustration of effect of lowering test cutoff on relative (percentage) difference between pass rates of advantaged group (AG) and disadvantaged group (DG) – Clarification regarding UGESP four-fifths rule

Cutoff	AG Pass Rate	DG Pass Rate	AG/DG Pass Ratio	DG/AG Pass Ratio
1 High	80%	63%	1.27	.79
2 Low	95%	87%	1.09	.92

- Approach employed here (blue):
 - At higher cutoff, AG pass rate is 1.27 times (27% greater than) DG pass rate.
 - At lower cutoff, AG pass rate is 1.09 times (9% greater than) DG pass rate.
- UGESP approach (yellow):
 - At high cutoff, DG pass rate is 79% of (21% less than) AG pass rate.
 - At low cutoff, DG pass rate is 92% of (8% less than) AG pass rate.
- Under either approach, lowering the cutoff reduces the relative difference in pass rates. Choice of numerator in rate ratio is irrelevant to the points made here.

The purpose of this table is to show, for benefit of persons familiar with the four-fifth rule of the Uniform Guidelines on Employee Selection Procedures (UGESP), that it does not matter which figure is used as the numerator of the rate ratio. Using the larger figure in the numerator (my preferred approach), the larger the rate ratio, the larger the relative difference; using the smaller figure as the numerator (UGESP approach), the smaller the rate ratio the larger the relative difference. Regardless of which figure is used as the numerator of the rate ratio, lowering the cutoff tends to reduce the relative difference in pass rates. I have at times used the UGESP approach. But lately I always put the larger figure as the numerator in the ratio because I think the matter is easier to understand where the larger the rate ratio, the larger the relative difference. See my [“The Mismeasure of Discrimination,”](#) Faculty Workshop, University of Kansas School of Law (Sept. 20, 2013) at 6 n.2.