

Materials for Meeting of Department of Education Staff with James Scanlan
(Mar. 22, 2018)

Issues (pages 1-2)

Illustrative Tables and Figures (pages 3-7)

Extended References (pages 8-11)

ISSUES

Issue 1:

Guidance by the Department of Education (DOE), as well as Departments of Justice (DOJ) and Health and Human Services (HHS), regarding school discipline policies has been premised on the belief that relaxing standards and otherwise generally reducing suspension rates will tend to reduce (a) the ratio of the African American suspension to the white suspension rate and (b) the proportion African Americans make up of suspended students. In fact, exactly the opposite is the case.

Recommendations for DOE action:

a. Communicate (ideally in conjunction with DOJ and HHS) to school administrators, the public, and Congress (by Dear Colleague letters and otherwise) that prior guidance as to the effects of policies on measures of racial disparity was incorrect.

b. Advise Congress of the ways statutes involving education and youth justice issues are premised on the mistaken belief that generally reducing adverse outcomes will tend to reduce the measures of disproportionality typically used by the government.

c. Review all agreements with school districts to determine whether the agreements require modifications to practices that tend to increase (a) and (b) while contemplating measuring compliance in terms of reductions in (a) and (b).

Issue 2:

There exists a general failure of persons and entities analyzing demographic differences regarding rates at which advantaged and disadvantaged groups experience favorable or adverse outcomes to recognize the ways measures employed in such analyses tend to be affected by the prevalence (frequency) of the outcomes. Analyses of such differences and guides thereon have almost invariably been unsound and misleading because they have not addressed (a) the extent to which observed patterns of changes in a measures are functions of the change in the prevalence of the outcome and (b) the extent to which such patterns reflect something significant about underlying processes, including the effects of policies aimed at mitigating the comparative disadvantage of certain groups.

Recommendations for DOE action:

a. Withdraw (or withdraw DOE association with) all research involving analyses of demographic differences that has attempted to quantify such differences, and all materials providing guidance on quantifying those differences, that have failed to consider the effects of the prevalence of an outcome on measures employed or discussed.

b. Review all DOE research and research grants to determine whether they fail to address the implications of the effects of the prevalence of an outcome on the measures employed or discussed; halt all funding that cannot be shown to address those implications in a useful manner.

c. In conjunction with other agencies, form a committee to reform the analyses of demographic differences.

Key references (available on web by means of title search or on Measurement Letters page of jpscanlan.com):

Statement of James P. Scanlan Prepared for U.S. Commission on Civil Rights Briefing “The School to Prison Pipeline: The Intersection of Students of Color with Disabilities” (Dec. 8, 2017)

“Innumeracy at the Department of Education and the Congressional Committees Overseeing It,” Federalist Society Blog (Aug. 24, 2017)

Letter to United States Departments of Education, Health and Human Services, and Justice (July 17, 2017)

Comments of James P. Scanlan for Commission on Evidence-Based Policymaking (Nov. 14, 2016)

ILLUSTRATIVE TABLES AND FIGURES

Table 1. Illustration of effects of lowering a test cutoff on measures of differences in test outcomes of advantaged group (AG) and disadvantaged group (DG) (based on situation where groups are of equal size) (Table 1 of July 17, 2017 letter to DOE, HHS, DOJ)

| 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% |

Table 1 illustrates that lowering a test cutoff – and thereby generally increasing pass rates and generally reducing failure rates – tends to *reduce* relative differences in pass rates (Column 5) and *increase* relative difference in failure rates (Column 6). Table also shows that lowering cutoffs tends to *increase* both the proportion DG makes up persons who pass (Column 7) and the proportion DG makes up of persons who fail (Column 8).

Considerations:

- Improving education in way that enables everyone scoring between the two cutoffs to reach the higher cutoff will have the same effect as lowering the cutoff.
- In circumstances where favorable and adverse outcome rates in the two rows result from actions of decisionmakers, there is no rational basis for distinguishing between the two rows with respect to the likelihood of decisionmaker bias.
- Other things being equal, decisionmaker who employs more relaxed standards or are more cautious about imposing adverse outcomes will tend show results more like those in Row 2 than Row 1.
- Patterns in the two rows are akin to those one would find where Row 1 involves more serious (often deemed objectively-identified) offenses while Row 2 involves less serious (often deemed subjectively-identified) offenses. See Offense Type Issues subpage of Discipline Disparities page of jpscanlan.com.
- Regarding Columns 4 and 8, a pattern that it is crucial to know, though virtually no one in fact knows, is that generally reducing an adverse outcome tends to (a) **reduce** the proportion of a disadvantaged group that experiences the outcome but (b) **increase** the proportion the disadvantaged group makes up of persons who experience the outcome.
- Lowering the cutoff decreased the absolute (percentage point) difference between pass (or fail) rates from 17 to 8. Usually when observers say that general reductions in suspensions decreased a disparity (mainly Daniel Losen and colleagues), they are referring to the percentage point difference. That does not mean that the absolute difference is a useful measure of association. See "Race and Mortality Revisited," *Society* (July/Aug. 2014) and Figures 1 and 2 and Table 6 *infra*.

Table 2. Illustration of effect of giving all students a reprimand instead of their first suspension on proportion African Americans make up of K-12 and preschool students receiving one or more suspensions (Table 4 of testimony to Commission on Civil Rights)

| Setting | Number of Suspensions | AA Proportion of Students Experiencing the Outcome |
|-----------|-----------------------|--|
| K-12 | One or more | 37% |
| K-12 | Two or more | 43% |
| Preschool | One or more | 44% |
| Preschool | Two or more | 48% |

Table 2 illustrates that a policy of giving reprimands instead of what would otherwise be first suspensions will tend to increase proportion African Americans make up of persons with one or more suspensions.

Table 3. African American and white rates of multiple suspensions in preschool and K-12, with measures of difference (Table 8 of Commission on Civil Rights testimony and Table 8 or “Race and Mortality Revisited,” Society (July/Aug. 2014))

| Level | (1) AA Multiple Susp Rate | (2) Wh Multiple Susp Rate | (3) AA/Wh Ratio Mult Susp | (4) Wh/AA Ratio No Mult Susp | (5) EES |
|-----------|---------------------------------|---------------------------------|---------------------------------|------------------------------------|------------|
| Preschool | 0.67% | 0.15% | 4.41 | 1.01 | .49 |
| K12 | 6.72% | 2.23% | 3.01 | 1.05 | .51 |

Table 3 illustrates that relative differences in receiving multiple suspensions are larger (Column 3), but relative differences in avoiding multiple suspensions are smaller (Column 4), in preschool (where multiple suspensions are comparatively rare) than in K-12 (where multiple suspensions are more common). Column 5 shows that, to the extent that the forces causing black and white rates to differ can be measured, they are about the same in both settings. Illustration is based on data from March 21, 2014 DOE report titled “Data Snapshot: Early Childhood Education” underlying the fact highlighted in the document, and much-cited in discussions of it, that African American children, who make up 18% of preschool students, make up 48% of preschool students with multiple suspensions.

Table 4. States regarded favorably and unfavorably in March 21, 2014 DOE document. 1) titled “Data Snapshot: School Discipline.”

| State | Proportion of restrained students who were students with disabilities | Way state was regarded by DOE | Likely degree to which states follows DOE guidance on restraints |
|-------------|---|-------------------------------|--|
| Nevada | 96% | Unfavorably | High |
| Florida | 95% | Unfavorably | High |
| Wyoming | 93% | Unfavorably | High |
| Arkansas | 43% | Favorably | Low |
| Louisiana | 41% | Favorably | Low |
| Mississippi | 40% | Favorably | Low |

See Restraint Disparities subpage of the Discipline Disparities page of jpscanlan.com regarding reasons why following DOE guidance to restrict the use of physical restraints to the most extreme cases tends to increase, not reduce, the proportion students with disabilities make up of restrained students.

Table 5: Proportions African Americans make up of expelled students overall and in schools with zero tolerance policies, with ratio of the African American expulsion rate to the white expulsion rate (based on 2012 DOE report titled “Helping to Ensure Equal Access to Education: Report to the President and Secretary”) (Table 9 of Commission on Civil Rights testimony)

| Setting | (1) AA Proportion of Students | (2) AA Proportion of Expulsions | (3) AA/Non-AA Expulsion Ratio |
|------------------------|-------------------------------------|---------------------------------------|-------------------------------------|
| Overall | 18% | 39% | 2.91 |
| Zero Tolerance Schools | 19% | 33% | 2.10 |

Table 5 illustrates that the African American/white expulsion ratio is greater in schools without zero tolerance policies than in schools with zero tolerance policies.¹

¹ One can derive the rate ratio in Column 3 from the figures in Columns 1 and 2 even though one does not have the actual rates. One needs the actual rates to attempt to determine whether forces causing rates to differ are greater in schools with or without zero tolerance policies. This is one of the reasons, but not the only reason, one can never analyze a demographic difference in the basis of a comparison between the proportion a group makes up of students and the proportion it makes up of students experiencing an outcome. See Section C the Kansas Law paper “The Mismeasure of Discrimination,” Section I.B of the Texas Department of Housing brief, and Section C of the November 14, 2016 Comments to the Commission on Evidence-Based Policy Making (listed in Section B of Extended References); see also the IDEA Data Center Disproportionality Guide subpage of the Discipline Disparities page of jpscanlan.com.

Figure 1. Absolute differences between rates of AG and DG pass (or fail) rates at various cutoff points defined by AG fail rate (Figure 2 CEBP Comments)

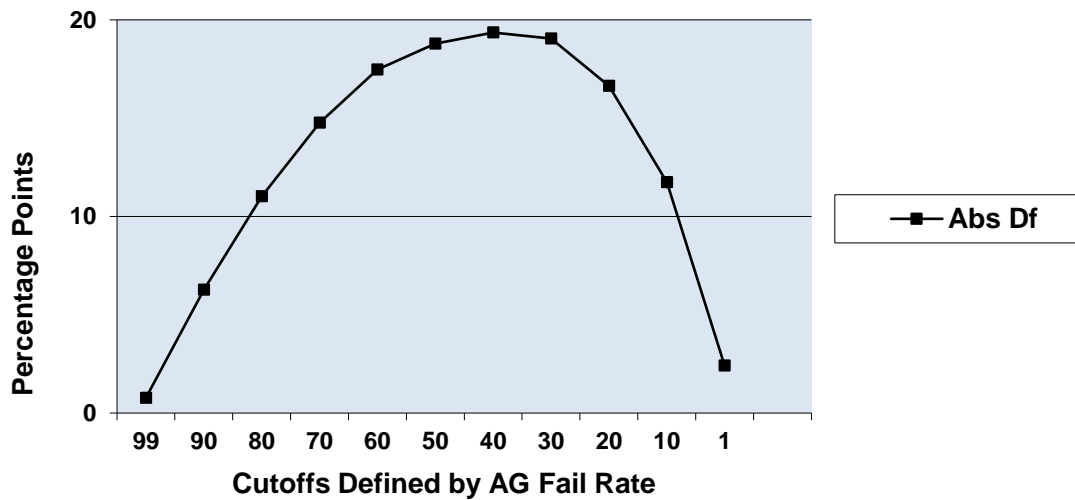
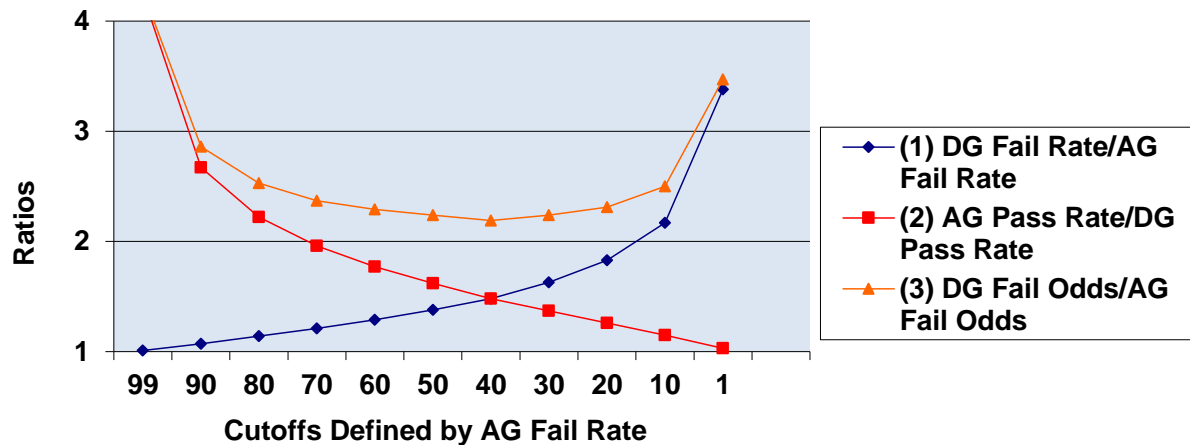


Figure 2. Ratios of (1) DG fail rate to AG fail rate, (2) AG pass rate to DG pass rate, (3) DG failure odds to AG failure odds (Figure 2 from the CEBP Comments)



Figures 1 and 2, which are based on the same specifications as Table 1, illustrate the effect of lowering a cutoff from a point where almost everyone fails to the point where almost everyone passes. Notice that direction of change in the absolute difference tends to track direction of change of the smaller of the two relative differences (initially (1)/diamond marker, later (2)/rectangle marker). Because observers who rely on relative differences to measure disparities commonly rely on the larger of the two relative differences (school discipline, mortgage outcomes, poverty, unemployment), such observers tend to reach opposite conclusions about directions of changes in disparities from observers who rely on absolute differences.

Table 6. Favorable outcome rates of advantaged group (AG) and disadvantaged group (DG) at four levels of prevalence with different favorable outcome frequencies, with measures of difference

| | (1) AG Fav Rate | (2) DG Fav Rate | (3) AG/DG Fav Ratio | (4) DG/AG Adv Ratio | (5) Absolute Diff (Perc Points) | (6) Odds Ratio |
|---|-----------------------|-----------------------|---------------------------|---------------------------|---------------------------------------|----------------------|
| A | 20.0% | 9.0% | 2.22 (1) | 1.14 (4) | 11.0 | 2.53 |
| B | 40.0% | 22.6% | 1.77 (2) | 1.29 (3) | 17.4 | 2.28 |
| C | 70.0% | 51.0% | 1.37 (3) | 1.63 (2) | 19.0 | 2.24 |
| D | 80.0% | 63.4% | 1.26 (4) | 1.83 (1) | 16.6 | 2.31 |

Table 6 illustrates that across all prevalence ranges general increases in favorable outcomes tend to reduce relative differences in those outcomes (Column 3) while increasing relative differences in the corresponding adverse outcomes (Column 4). The highlighted absolute difference column (5) shows that generally increasing an uncommon outcome (e.g., rates of advanced proficiency) tends to increase absolute (percentage point) differences between rates, as reflected by movement from row A to Row B; but generally increasing a common outcome (e.g., rates of achieving basic proficiency) tends to reduce absolute differences between rates, as reflected by movement from Row C to Row D.

See Educational Disparities page of jpscanlan.com and its subpages. See discussion of Table 5 in "Race and Mortality Revisited.," *Society* (July/Aug. 2014) and discussion (at 337-339) regarding the implications of failure to understand the pattern by which absolute differences tend to be affected by the prevalence of an outcome with respect to disparities reduction elements in pay-for-performance programs, especially in Massachusetts.

EXTENDED REFERENCES

All items listed below are available online and most can be accessed by web searches for their titles. Items that may not be found by web searches should be available on the Measurement Letters page of jpscanlan.com.

A. Short items explaining the mistaken understanding of effects of relaxing standards on measures of demographic difference involving school discipline or criminal justice outcomes (essentially primers on Issue 1)

“Things Do doesn’t know about racial disparities in Ferguson,” *The Hill* (Feb. 22, 2016)

“Things government doesn’t know about racial disparities,” *The Hill* (Jan. 28, 2014).

“The Paradox of Lowering Standards,” *Baltimore Sun* (Aug. 5, 2013)

“Misunderstanding of Statistics Leads to Misguided Law Enforcement Policies,” *Amstat News* (Dec. 2012)

“An Issue of Numbers,” *National Law Journal* (Mar. 5, 1990)²

B. More extensive treatments of Issue 1 or Issue 2 with respect to the full range of matters to which the issues pertain

Statement of James P. Scanlan Prepared for U.S. Commission on Civil Rights Briefing “The School to Prison Pipeline: The Intersection of Students of Color with Disabilities” (Dec. 8, 2017)

Comments of James P. Scanlan 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)

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)

“The Mismeasure of Discrimination,” Faculty Workshop, University of Kansas School of Law (Sept. 20, 2013)

“Measuring Health and Healthcare Disparities,” Federal Committee on Statistical Methodology 2013 Research Conference (Nov. 2013)

² Explains that lowering National Collegiate Athletic Association academic standards for participation in intercollegiate athletics will tend to increase the proportion African Americans make up of athletes disqualified from participation.

C. Recent articles or blog posts discussing, with respect to certain current issues, government policies or actions based on an understanding of the effects of generally reducing school discipline or criminal justice outcomes on measures of racial disparity that is the opposite of reality

“The misunderstood effects of the Baltimore police consent decree,” *The Daily Record* (Feb. 15, 2018)

“The Misunderstood Relationship Between Racial Differences in Conduct and Racial Differences in School Discipline and Criminal Justice Outcomes,” Federalist Society Blog (Dec. 20, 2017).³

“United States Exports Its Most Profound Ignorance About Racial Disparities to the United Kingdom,” Federalist Society Blog (Nov. 2, 2017)

“The Pernicious Misunderstanding of Effects or Policies on Racial Differences in Criminal Justice Outcomes,” Federalist Society Blog (Oct. 12, 2017).

“Innumeracy at the Department of Education and the Congressional Committees Overseeing It,” Federalist Society Blog (Aug. 24, 2017) *

“The Government’s Uncertain Path to Numeracy,” Federalist Society Blog (July 21, 2017)

D. Web pages on jpscanlan.com

Discipline Disparities page and 41 subpages

Subpages address various issues. About 25 pertain to situations where general reductions in discipline rates were in fact associated with increased relative racial/ethnic differences in discipline rates or where the settings with comparatively low discipline rates had comparatively high relative demographic differences in discipline rates.

Education Disparities page and its 7 subpages

The subpages mainly pertain to research examining demographic differences in educational outcomes in terms of relative differences in the favorable or the adverse outcome, or absolute differences between rates, without consideration of the ways the measures employed tend to be affected by the prevalence of the outcome. That is, researchers failed to understand that general improvements in educational outcomes tend to reduce relative differences in favorable outcomes while increasing relative differences in the corresponding adverse outcomes, or that such improvements tend to increase absolute differences for uncommon outcomes like advanced proficiency but reduce absolute differences for common outcomes like basic proficiency.

³ This item also discusses some complex issues regarding inferences related to likelihood that bias plays a role in racial differences akin to those addressed on the Offense Type Issues subpage of the Discipline Disparities page of jpscanlan.com.

E. Letters to DOE, DOJ, or HHS Regarding School Discipline Issues

Departments of Education, Health and Human Services, and Justice (July 17, 2017)
Department of Justice (Apr. 13, 2017)
Departments of Education and Health and Human Services of Education (Aug. 24, 2015)
Department of Justice (Apr. 23, 2012)
Department of Education (Apr. 18, 2012)

F. Letters to DOE contractors and grantees and other entities that conduct research or provide guidance on research regarding demographic differences in discipline or education outcomes (known DOE contractors/grantees denoted with asterisk)

American Institutes for Research (Aug. 25, 2017) *
Pyramid Equity Project (Nov. 28, 2016) *
University of Oregon Institute on Violence and Destructive Behavior and University of Oregon Law School Center for Dispute Resolution (July 5, 2016) *
University of Oregon Institute on Violence and Destructive Behavior and University of Oregon Law School Center for Dispute Resolution (July 3, 2016) *
New York City Center for Innovation through Data Intelligence (June 6, 2016)
Texas Appleseed (Apr. 7, 2015)
Wisconsin Council on Families and Children's Race to Equity Project (Dec. 23, 2014)
Education Law Center (Aug. 14, 2014)
IDEA Data Center (Aug. 11, 2014) *
Annie E. Casey Foundation (May 13, 2014)
Education Trust (April 30, 2014)

G. Letters to school districts regarding difficulties in their particular situations arising from their own mistaken beliefs, or the mistaken beliefs of others, that generally reducing discipline rates will tend to reduce (a) relative differences in discipline rates or (b) the proportion disadvantaged groups make up of persons disciplined

Metro Nashville Public Schools (Feb. 14, 2018)
Loudoun County Public Schools (Sept. 5, 2017)
Duval County Public Schools (Aug. 2, 2017)
Oklahoma City School District (Sept. 20, 2016)
Antioch Unified School District (Sept. 9, 2016)
Houston Independent School District (Jan. 5, 2016)
McKinney, Texas Independent School District (Aug. 31, 2015)

H. DOE-sponsored documents warranting withdrawal

As suggested in the Recommendations regarding Issue 2, all DOE-sponsored documents measuring or providing guidance on measuring demographic differences in educational outcomes should probably be withdrawn. Those listed below are merely some notable examples.

IDEA Data Center Technical Assistance Guide titled “Methods for Assessing Disproportionality in Special Education (revised March 2014).”⁴

Institute of Education Sciences study titled “Disproportionality in school discipline: An assessment of trends in Maryland, 2009-12” (March 2014).⁵

Institute of Education Sciences/Regional Educational Laboratory guide titled “School discipline data indicators: A guide for districts and schools” (April 2017).⁶

DOE Regulation 24 CFR Part 300 – Assistance to States for the Education of Children with Disabilities; Preschool Grants for Children with Disabilities.⁷

⁴ See the IDEA Data Center Disproportionality Guide subpage of the Discipline Disparities page of jpscanlan.com. See also pages 8-9 of the August 24, 2015 letter to the Secretaries of DOE and HHS.

⁵ This item, which is made available on the DOE “School Climate and Discipline: Know the Data” page and treated on the Maryland Disparities subpage of the Discipline Disparities page of jpscanlan.com, is problematic both because it measures suspension disparities in relative terms and because it reflects the mistaken belief that generally reducing discipline suspension rates would be expected to reduce relative racial differences in suspension rates.

⁶ This item has problems similar to those of the IDEA Data Center Technical Assistance Guide.

⁷ On February 28, 2018, DOE postponed implementation of this regulation until 2020. By then the agency should recognize that one cannot usefully measure demographic based on relative differences in outcome rates (or other measures that tend to change solely because the prevalence of an outcome changes).