

DATA AND DISCIPLINE

By

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Most people can accept that there might be some disparity in discipline rates of white and minority students without assuming that there has been discrimination. Even within the same schools minority students will on average come from lower socioeconomic backgrounds, and there will tend to be some correlation between discipline problems and socioeconomic background. Thus, there is reason to expect some disparity in discipline rates as result of different rates of violating disciplinary rules.

When disparities between white and minority discipline rates are extremely large, however, many question whether disparities that large could possibly result from even-handed application of discipline policies. Some would even contend that, whether or not extreme disparities are the result of discrimination, the policies causing such disparities need to be reconsidered.

Consider the data on racial disparities in suspensions and expulsions in ten large school districts discussed in a *Washington Post* article on December 17, 1999. The data had been compiled by the Oakland-based Applied Research Center (ARC), which intends to release a larger study early this year. According to the *Post* article, the ARC study reflects the first effort to examine racial disparities in school discipline rates since “zero tolerance” policies have been implemented to address school discipline problems around the country. Citing ARC findings that in some school districts blacks were being suspended as often as five times as frequently as whites, the *Post* article discussed the growing body of opinion that blacks are disproportionately bearing the brunt of

recently-implemented policies requiring automatic expulsion for aggressive behavior and other security violations.

Actually, the *Post* was a bit off in its math. The statement that blacks were disciplined five times as often as whites was based on the fact that in Phoenix, Arizona, blacks comprised four percent of students, but made up 21 percent of those suspended or expelled. Taking into account that whites comprised 74 percent of students in Phoenix but only 18 percent of those disciplined, we see that the black rate in fact was about 22 times the white rate.

In Decatur, Illinois, where a court recently rejected an effort to challenge the widely-publicized expulsion of six black students, the plaintiffs had relied on statistics showing that black students comprised 82 percent of expulsions while making up just under 50 percent of all students. Taking into account that whites comprised just over 50 percent of students but only 18 percent of expulsions, we learn that the black expulsion rate was over 5 times the white rate.

But is a five-fold or a 22-fold disparity extremely large? The answer to that question is not as obvious as it seems.

Whenever there exists some average difference in susceptibility to some outcome, the size of an observed disparity in experiencing the outcome is a function of both the size of the average difference and the frequency of the outcome. When the outcome is very rare, even a quite small average difference can translate into a seemingly huge disparity in experiencing the outcome. Perhaps more important in developing policy, however, is that it is also

the case that the rarer the outcome the smaller will tend to be the disparity in avoiding it.

This tendency is readily illustrated in the testing context. When a test is perceived to have a racially discriminatory effect, lowering cutoff scores is universally regarded as a way of reducing the discriminatory effect because lowering cutoffs reduces racial disparities in pass rates. However, lowering cutoff scores also increases racial disparities in failure rates. And when the cutoff is lowered to a point where almost everyone passes, even a modest difference in average scores can translate into an enormous disparity in failure rates.

For example, without getting into the nuances of normal distributions, when the minority pass rate is 50 percent and the white pass rate is 70 percent, the minority pass rate is 71 percent of the white pass rate and the minority failure rate is 1.6 times the white rate failure (50 over 30). When the cutoff is lowered to point where, say, the minority pass rate is 95 percent and white pass rate is 99 percent, the minority pass rate almost equals the white pass rate but the minority failure rate is five times the white failure rate. As the white pass rate inches ever closer to 100 percent, the fact that the minority pass rate is several percentage points lower can result in huge disparities in failure rates. No one disputes, however, that lowering cutoff scores on such tests enhances minority opportunity.

The misunderstanding of this statistical tendency also has a number of implications with respect to school discipline. First of all, the perception that the disparities in suspension and expulsion rates cited in the *Post* article are consequences of automatic suspension/expulsion policies is probably inaccurate. More flexible policies – i.e., those that, like lowering cutoff scores, will

reduce racial disparities in avoiding an adverse outcome – will likely lead to greater racial disparities in the smaller number of suspensions and expulsions that still occur.

The recent attention to racial disparities in discipline rates may cause schools to carefully scrutinize the fairness of their discipline policies. That will probably reduce any discrimination that may exist. However, the reduction of overall suspension/expulsion rates that invariably results from such heightened scrutiny is likely to increase the racial disparities in suspension/expulsion rates even when that additional scrutiny is also weeding out some amount of discrimination.

Yet neither the schools nor the federal enforcement agencies show any sign of understanding the relevant statistical tendency. Recently a school official in Akron, Ohio responded to a Department of Education investigation of racial disparities in the school district's suspension rates by observing that he welcomed the investigation as an opportunity to showcase new programs aimed at lowering suspension rates. If those programs are effective, however, they are likely to increase the disparities that drew the Department's attention in the first place.

Zero tolerance policies may or may not be sensible responses to school violence. But those who consider flexibility or leniency in the administration of school discipline to be desirable policies must learn not to focus on the types of racial disparities that more flexible policies can be expected to increase.

And there may or may not be racial discrimination in the administration of a particular school's disciplinary policies. But there will be little prospect of discovering whether such discrimination exists unless those studying the matter do so with a greater understanding of elementary

statistics than one generally observes in such efforts.

WIDESPREAD MISUNDERSTANDING

Unfortunately, school discipline is but one of many areas where the failure to understand the implications of lowering cutoffs and other measures aimed at increasing everyone's chance of success has resulted in misguided commentary and chaotic policies. Large disparities in rates at which certain groups have been terminated from employment have been perceived as resulting from unduly stringent performance standards or inadequate training, and measures to improve everyone's chance of succeeding have been suggested as remedies. These may well be good ideas, but they will tend to increase the disparities that initially prompted the concern.

Banks with the largest racial disparities in mortgage rejection rates have been vilified in studies and singled out for enforcement efforts without anyone's understanding that such banks tend to have the lowest racial disparities in approval rates. Indeed, the federal government encourages banks to relax lending criteria in order to enhance minorities' access to credit, but federal agencies nevertheless focus their enforcement efforts on the disparities in rejection rates that the relaxation of lending criteria will tend to increase.

A number of studies of California's criminal justice system, including one reported in *The Washington Post* on February 3, 2000, have found evidence of discrimination in the fact that racial disparities increase at each deeper level of the system. They have also found the seemingly huge disparities between the rates at which whites and minorities are affected by extreme measures like the three-strikes law as reasons for modifying the law. But the increasing racial disparities at each deeper level of the criminal justice system are entirely to be expected for the same

reason that increasing racial disparities in falling below increasingly lower cutoffs in a test are to be expected; the pattern tells nothing about whether discrimination is involved. And modification of measures like the three-strikes law – for example, by making it a four-strikes law – are likely to increase the racial disparities among those who continue to be affected.

As a result of increasing attention to racial profiling, more and more jurisdictions will be collecting data on the race of persons stopped on highways. Assuming that there is any racial difference in giving cause for legitimate stops, however, there is reason to expect that, all else being equal, where a police force (or officer) is lazy or circumspect or has limited resources, the data will show larger racial disparities than elsewhere. But there is little likelihood that such tendency will be considered in the analysis of such data.

The law is not the only area where the misunderstanding of this tendency leads to the misinterpretation of data on group differences. For more than two decades—and with no sign of stopping—the social science community has been appraising changes in relative poverty rates without recognizing that almost invariably when poverty declines demographic disparities in poverty rates will increase, or that when poverty increases demographic disparities will decline.

For that matter, the leading medical journals of the United States and United Kingdom – as well as the Center for Disease Control and Prevention – have for more than a decade been lamenting that racial and socioeconomic disparities in mortality rates have been increasing despite overall declines in mortality. They have done without recognition that racial disparities in mortality increase because of overall declines in mortality or that such increase in mortality rate differences are accompanied by decreases in survival rate differences.

WHAT IS A LARGE DISPARITY?

The analysis of racial and other demographic disparities and what they tell about the way people are treated, however, involves a problem that goes beyond the misunderstanding of the curious relationship between disparities in failure rates and disparities in success rates. That problem involves the almost metaphysical issue of what is a large difference, or, more precisely, when a difference large enough that it can tell you something.

Consider the commonplace employment discrimination cases with which the courts have been dealing for over thirty years. When the cases are sensibly analyzed, the ultimate issue generally distills to whether a particular disparity is so large that it is unreasonable to believe that the disparity could be explained by the fact that one group is somewhat less qualified for (or interested in) certain jobs than another.

Consider a situation where group that is somewhat less qualified than another comprises 20 percent of an employer's applicants but only 10 percent of the employer's hires. This means that applicants from the somewhat more qualified group at 2.25 times as likely to be hired as those from the less qualified group. To understand the difficulty of determining how large that disparity is, contrast it with an employer down the road where the less qualified group comprises 20 percent of applicants but only 5 percent of hires, which means that applicants from the more qualified group are 4.75 times as likely to be hired as applicants from the less qualified group.

There is insufficient data here to answer the question of which is the larger disparity with respect to the crucial issue of whether the disparity could be explained by differences in qualifications. For even to begin to answer that question one needs to know what proportion of total applicants

each employer hires. Yet, I am aware of only one reported case where the courts have even scratched the surface of this complex issue, and none that has addressed it in the last ten years.

The issue attracting particular attention lately involves race and the death penalty. Many who believe racism is somehow involved indiscriminately talk of race-of-defendant discrimination and race-of-victim discrimination, though generally with an eye on the seemingly disproportionately black representation on death row. But the studies of race in the administration of the death penalty have found only a race-of-victim effect. Not only does race-of-victim discrimination raise different philosophical issues from race-of-defendant discrimination, but, because the overwhelming majority of black murder victims have been murdered by other blacks, such race-of-victim bias as does exist tends to reduce the black proportion of inmates on death row. Elimination of such bias would therefore increase that proportion.

The Justice Department has indicated that it will now be studying the administration of the death penalty for federal crimes. I do not know, or know whether the Justice Department itself knows, whether it will be studying both race-of-defendant and race-of-victim bias. The interaction of the two complicates any study of race and the death penalty, however, for race-of-victim bias will tend to mask (and diminish) race-of-defendant bias, while race-of-defendant bias will tend to mask (and diminish) race-of-victim bias.

In any event, as in the case of almost all such studies, ultimately the Department of Justice likely will be left with some seemingly large disparity and faced with trying to figure out whether the disparity is large enough to compel an inference of discrimination. But like just about every other person or entity studying demographic

disparities, the Justice Department has yet to suggest that it even knows what a large disparity is.