The University of Chicago Law Review

Rethinking Racial Profiling: A Critique of the Economics, Civil Liberties, and Constitutional Literature, and of Criminal Profiling More Generally

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INTRODUCTION

New reporting requirements and data collection efforts by over four hundred law enforcement agencies across the country—including entire states such as Maryland, Missouri, and Washington[1]—are producing a continuous flow of new evidence on highway police searches. For the most part, the data consistently show disproportionate searches of African-American and Hispanic motorists in relation

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[1]   See Clayton J. Mosher, Terance D. Miethe, and Dretha M. Phillips, *The Mismeasure of Crime* 186 (Sage 2002) ("As of March 2001, more than 400 law enforcement agencies in the United States were gathering information on the race/ethnicity of those stopped."). See also Katheryn K. Russell, *Racial Profiling: A Status Report of the Legal, Legislative, and Empirical Literature*, 3 Rutgers Race & L Rev 61, 68–71 (2001) (listing jurisdictions that have enacted data collection mandates); Brandon Garrett, *Remedying Racial Profiling*, 33 Colum Hum Rts L Rev 41, 81–83 (2001) (reviewing data collection efforts); Deborah Ramirez, Jack McDevitt, and Amy Farrell, *A Resource Guide on Racial Profiling Data Collection Systems: Promising Practices and Lessons Learned* (DOJ 2000), online at http://www.ncjrs.org/pdffiles1/bja/184768.pdf (visited July 27, 2004) (describing the data collection systems in California, New Jersey, North Carolina, and Great Britain). For the most recent data, legislation, and news, see the Northeastern University Center on Racial Profiling website at http://www.racialprofilinganalysis.neu.edu (visited July 27, 2004). See also the website of the Institute on Race & Poverty at the University of Minnesota at http://www1.umn.edu/irp/publications/racialprofiling.html (visited July 27, 2004).

to their estimated representation on the road. Economists, civil liberties advocates, legal and constitutional scholars, political scientists, lawyers, and judges are poring over the new data and reaching, in many cases, quite opposite conclusions about racial profiling.[2]

In one corner, economists are developing new models of racial profiling to test whether the consistent findings of disproportionate searches of minority motorists reflect efficiency of policing—that is, "statistical discrimination" that results from maximizing the number of successful searches of motorists for drug contraband—or raw racial animus. To economists, the fact that police disproportionately search minority motorists is not, in itself, proof of racism. What matters instead is the rate of successful searches that discover drug contraband—frequently referred to as the "hit rate." When the hit rates are the same across racial or ethnic lines, some economists argue, the police are not bigoted in their searches because they have no incentive to search more or fewer motorists of any particular race.[3] At equilibrium, the police have achieved a racial balance, though perhaps one with a racial imbalance at its heart, that they are unwilling to change on the basis of race—unless, of course, they have a taste for discrimination.

Accordingly, when the data reveal equal hit rates as between different racial groups—such as in Maryland between African-American

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[2]   The controversy over the definition of the term "racial profiling" has been rehearsed in several leading articles on racial profiling. In this Article, "racial profiling" denotes the practice of stopping and searching minority motorists at a rate in excess of their representation on the road based on the assumption that they are more likely to be transporting drug contraband. The term "racial profiling" is of recent vintage. See generally Jerome H. Skolnick and Abigail Caplovitz, *Guns, Drugs, and Profiling: Ways to Target Guns and Minimize Racial Profiling*, 43 Ariz L Rev 413 (2001), reprinted in Bernard E. Harcourt, ed, *Guns, Crime, and Punishment in America* 249 (NYU 2003) (discussing the history of the "racial profiling" expression). For discussions of the controversy over the definition of racial profiling, see, for example, Russell, 3 Rutgers Race & L Rev at 65–68 (cited in note 1); Albert W. Alschuler, *Racial Profiling and the Constitution*, 2002 U Chi Legal F 163, 168–73 & n 24; Samuel R. Gross and Katherine Y. Barnes, *Road Work: Racial Profiling and Drug Interdiction on the Highway*, 101 Mich L Rev 651, 738 & nn 278–82 (2002). For a careful definition of the term, see Mathias Risse and Richard Zeckhauser, *Racial Profiling*, 32 Phil & Pub Aff 131, 135–38 (2004).

[3]   The leading studies include John Knowles, Nicola Persico, and Petra Todd, *Racial Bias in Motor Vehicle Searches: Theory and Evidence*, 109 J Polit Econ 203 (2001); Rubén Hernández-Murillo and John Knowles, *Racial Profiling or Racist Policing?: Testing in Aggregated Data* (working paper Apr 18, 2003), online at http://www.econ.upenn.edu/~jknowles/Research/HKRacProf_2003c.pdf (visited July 27, 2004); Nicola Persico, *Racial Profiling, Fairness, and Effectiveness of Policing*, 92 Am Econ Rev 1472 (2002); Vani K. Borooah, *Racial Bias in Police Stops and Searches: An Economic Analysis*, 17 Eur J Polit Econ 17 (2001). For a fruitful discussion of the difference between statistical discrimination and naked bigotry, compare Shanti P. Chakravarty, *Economic Analysis of Police Stops and Searches: A Critique*, 18 Eur J Polit Econ 597 (2002), with Vani K. Borooah, *Economic Analysis of Police Stops and Searches: A Reply*, 18 Eur J Polit Econ 607 (2002).

and white motorists[4]—some economists conclude that the disproportionate searches of minority drivers do not reflect a taste for discrimination, but rather an attempt to maximize successful searches. When the data reveal lower hit rates for minority motorists—such as in Maryland between Hispanic and white motorists,[5] or in Missouri between African-American and Hispanic motorists on the one hand and white motorists on the other[6]—some economists reason that bigotry against minority motorists explains the disparity. And when the data reveal higher hit rates for minority motorists—such as in Maryland regarding large hauls of drugs[7]—economists conclude that reverse racism is at play—in other words, bigotry against white motorists.

In another corner, civil liberties advocates and some legal scholars dispute the economists' assumptions and claims of policing efficiency.[8] Several commentators focus on the raw disparities in searches, and argue that the disparities themselves produce large numbers of innocent minority motorists subjected to negative police interaction and state surveillance, which, they suggest, is unacceptable on its own terms.[9] Other commentators focus on indicators of actual offending rates—such as drug consumption self-report surveys—and argue that there is no evidence that minority motorists offend at higher rates than whites.[10] From their perspective, the equal or lower hit rates do not reflect policing efficiency, but rather constant rates of equal or lower offending among minorities. And if there are non-elastic similar rates of offending among minority motorists, the police should not use race in the decision to stop and search motorists. Building on this empirical foundation, they argue that it is "plainly unconstitutional" to use race in the decision to search motorists.[11] The police, they contend,

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4   See Knowles, Persico, and Todd, 109 J Polit Econ at 219 (cited in note 3).

5   Id.

6   See Hernández-Murillo and Knowles, *Racial Profiling or Racist Policing?* at 4–5 (cited in note 3).

7   See Knowles, Persico, and Todd, 109 J Polit Econ at 224–26.

8   The leading articles and books include David A. Harris, *Profiles in Injustice: Why Racial Profiling Cannot Work* (New Press 2002); Gross and Barnes, 101 Mich L Rev 651 (cited in note 2); Alschuler, 2002 U Chi Legal F 163 (cited in note 2); Samuel R. Gross and Debra Livingston, *Racial Profiling under Attack*, 102 Colum L Rev 1413 (2002); David Rudovsky, *Law Enforcement by Stereotypes and Serendipity: Racial Profiling and Stops and Searches without Cause*, 3 U Pa J Const L 296 (2001); Tracey Maclin, *The Fourth Amendment on the Freeway*, 3 Rutgers Race & L Rev 117 (2001).

9   See, for example, Harris, *Profiles in Injustice* at 91–128 (cited in note 8).

10   See, for example, Alschuler, 2002 U Chi Legal F at 230–31; Gross and Barnes, 101 Mich L Rev at 670; Rudovsky, 3 U Pa J Const L at 308–12 (cited in note 8).

11   Gross and Barnes, 101 Mich L Rev at 744 (cited in note 2). See also Rudovsky, 3 U Pa J Const L at 363–66 (cited in note 8); Maclin, 3 Rutgers Race & L Rev at 124 (cited in note 8).

can no more use race to decide whom to search than a prosecutor can use race to decide whom to charge with a capital crime.[12]

In yet a third corner, judges and several constitutional commentators draw technical distinctions to resolve legal challenges to racial profiling. First, judges distinguish between the Fourth Amendment protection against unreasonable searches and the Fourteenth Amendment guarantee of equal treatment, and largely relegate the use of race in policing to the latter. In the Fourth Amendment context, judges and some commentators distinguish between using race exclusively and as one factor among others, and tend to disregard claims that fall in the latter category, which captures most of the cases. In the equal protection context, judges and many commentators distinguish between profiling without individualized suspicion and using an eyewitness racial identification, and exclude the latter from Fourteenth Amendment scrutiny. Finally, in the equal protection context as well, judges distinguish between intentional discrimination established by evidence of specific discriminatory acts and statistical evidence of disparate treatment, and reject challenges that do not establish the former. The result is that practically all constitutional challenges to racial profiling have either failed due to one or more of these technical legal distinctions[13] or have been settled out of court, primarily for injunctive relief.[14]

The emerging debates are increasingly empirical, technical, engaged, and heated—which are all positive developments. But they suffer from one fatal flaw: no one has properly identified the conditions

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[12] See Gross and Barnes, 101 Mich L Rev at 740–41; Alschuler, 2002 U Chi Legal F at 254–55 (cited in note 2). See also Rudovsky, 3 U Pa J Const L at 322–29 (evaluating racial profiling in light of the case law on selective prosecution).

[13] See Gross and Barnes, 101 Mich L Rev at 727. There is one notorious exception, in which a court permitted the requisite discriminatory intent to be inferred from statistical evidence. *State v Soto*, 324 NJ Super 66, 734 A2d 350, 360 (1996). For commentary, see Gross and Barnes, 101 Mich L Rev at 723–30; Harris, *Profiles in Injustice* at 53 (cited in note 8); Rudovsky, 3 U Pa J Const L at 351.

[14] See Gross and Barnes, 101 Mich L Rev at 727–28; Garrett, 33 Colum Hum Rts L Rev at 75–81, 98–105 (cited in note 1) (discussing several decrees). This is not to suggest, though, that the litigation has not had significant effects in raising awareness of the issue of racial profiling, generating policy responses within police departments, and promoting agreements between police departments and anti–racial profiling organizations. An example of one such agreement entered into as a result of voluntary mediation—between the St. Paul Police Department and the St. Paul Chapter of the NAACP—is reproduced as an appendix to Lorie Fridell, et al, *Racially Biased Policing: A Principled Response* (Police Executive Research Forum 2001). That report also details six key policy responses—including police department accountability and supervision, education and training, and minority community outreach—that a number of police departments are implementing. Id at ch 3–8. See also John J. Farmer, Jr. and Paul H. Zoubek, *Final Report of the State Police Review Team* (New Jersey State Police Review Team 1999) (detailing a list of recommendations for reforms relating to racial profiling).

under which racial profiling, as a form of criminal profiling, can legitimately and constitutionally be used in policing. This failure reflects in part the fact that for many people after September 11, 2001, there *is* no longer a clear-cut answer to the puzzle of race and policing. As William Stuntz suggests, expressing the views of many after September 11, "solving the profiling problem is impossible."[15]

This, however, cannot be right. The use of race in policing is not *that* different from the use of race in other policy contexts—whether in higher education, employment, or even restitution for slavery—that conditions cannot be stated for when race may be used in policing, particularly when the government's interest in using race relates to a traditional compelling interest such as the law enforcement goal of combating crime. To the contrary, the specific conditions under which race can legitimately and constitutionally be considered in policing can be specified as follows: racial profiling for purposes of police searches is a narrowly tailored policing technique that promotes the traditional law enforcement interest in fighting crime if (1) racial profiling reduces the amount of profiled crime while (2) maintaining or increasing the efficient allocation of police resources, without (3) producing a "ratchet effect" on the profiled population. A ratchet effect occurs when racial profiling produces a supervised population disproportionate to the distribution of offending by racial group.[16]

The first condition—that racial profiling must minimize the profiled crime—is the core of the government's law enforcement interest in fighting crime. If racial profiling of minority motorists causes white motorists to offend more, and this additional offending outweighs any gains from the reduction of minority motorist offending, then racial profiling is counterproductive. If, in contrast, racial profiling reduces the profiled crime, then, as between different policing techniques, racial profiling is preferable only if it represents a more efficient allocation of resources (putting aside the issue of race for one moment).

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[15]   William J. Stuntz, *Local Policing after the Terror*, 111 Yale L J 2137, 2163 (2002). Stuntz places himself in the category of people who regard racial profiling as "occasionally tolerable"; however, Stuntz does not elaborate in detail when racial profiling is proper, other than to suggest that "[i]t all depends on the balance, on the benefits to law enforcement from using race or ethnicity as a proxy and the harm to the group that must pay [the racial] tax." Id at 2179. Overall, Stuntz writes that "racial and ethnic profiling is a fact of life that the legal system probably cannot change." Id. As a result, rather than addressing the problem head on, Stuntz suggests we implement changes in the regulation of police that will alleviate the problem—specifically, that we allow group searches not based on individualized suspicion and regulate the manner of searches. These reforms, Stuntz argues, will mitigate the problem of racial profiling. Id at 2163–76. See also R. Richard Banks, *Beyond Profiling: Race, Policing, and the Drug War*, 56 Stan L Rev 571, 602 (2003) (suggesting abandonment of the racial profiling inquiry).

[16]   The concept of a "ratchet effect" is defined and explained in detail in Part II.B.2.

Hence, the second condition. As opposed to random highway searches, racial profiling would increase the efficiency of policing if, for example, it produces higher overall rates of detection of drug contraband, that is, higher hit rates overall. However, racial profiling is *narrowly tailored* to these law enforcement goals only if the policing practices do not create a ratchet effect on the profiled population; this is the third condition. A policy of searching all members of a racial group—or for that matter, incarcerating all members of a racial group—is likely to satisfy the first requirement and significantly reduce the amount of profiled crime, but would clearly produce a ratchet effect on the members of the racial group. For the more effective and efficient policing policy to be acceptable, it must not have disproportionate collateral consequences on the profiled population. It must not produce a racial imbalance in the supervised or carceral population relative to the racial breakdown of offenders.

Under these three conditions, racial profiling would be an effective, efficient, and narrowly tailored law enforcement technique that promotes the compelling government interest in combating crime, here the highway transportation of illicit drugs. This is not to say that it would have no costs. Like all other policies that use a category distinction—especially race—it would inflict costs on members of the profiled group. More minority motorists—innocent and guilty—would be subjected to intrusive, unpleasant, and possibly humiliating searches on the side of the road. But all distinctions based on race—including affirmative action programs—distribute costs *based on race*. The fact that there are costs is not dispositive. What matters is whether the race-based policy is narrowly tailored to minimize costs. Nor does the satisfaction of the three constitutional conditions establish that the benefits of drug interdiction outweigh these substantial costs. We can debate at length the pros and cons of the war on drugs. But, policy debates aside, if the three conditions are met, racial profiling of police searches should survive constitutional scrutiny.

There may well be other non–law enforcement interests that warrant using race in policing as well. For instance, having a carceral population that reflects more accurately the demographic distribution of the offending population or the general population may constitute a compelling interest. If so, it may be necessary to profile white motorists to balance the demographics of the prison population. It may be necessary to employ affirmative action in policing. Again, this would have costs—increased searches of innocent white motorists—and, as a policy matter, those costs may be equally troubling; however, as a constitutional matter, if the reverse racial profiling is narrowly tailored to

the compelling interest in reducing minority representation in prison, then the policy would also survive judicial scrutiny. Alternatively, combating crimes committed against historically disadvantaged populations, such as African-Americans or Hispanics, may be a compelling interest. If so, here too it may be necessary to be race conscious in policing. But with regard to the specific compelling interest in fighting crime—in this case, interdicting the highway transportation of drug contraband—race can properly be used in policing only if the three narrow conditions specified above are satisfied.

Properly defining these conditions greatly clarifies the racial profiling debate. As a preliminary matter, it becomes clear that the new economic models and the debates over "policing efficiency" are *maximizing the wrong thing*: instead of maximizing the success rate of searches, the police should seek, first and foremost, to maximize the reduction in the profiled crime and associated policing costs—in other words, to minimize the social costs associated with the profiled crime and profiling technique. As a result, the new economic models *track the wrong statistic*: rather than focusing on hit rates, the models should focus on the overall amount of profiled crime and costs to society of the searches. Moreover, the models need to address the additional question of whether racial profiling produces a ratchet effect on the profiled population.

A second major implication is that the new data do not contain enough information to address these questions—neither the narrow question of whether racial profiling maximizes the success rate of searches, nor the larger questions of whether it reduces the amount of the profiled crime or causes a ratchet effect. The three narrow conditions that would make racial profiling acceptable will be satisfied only under very specific circumstances of comparative elasticity of offending to policing and of comparative offending as between the two racial groups. The new data, however, lack this information. The data contain only two of at least four necessary quantities of interest. The data include, first, the number and proportion of drivers searched by race and, second, the success rate of searches by race. (There is also more detailed information about types and amounts of drugs seized, location, type of searches, etc., which can produce more refined but not fundamentally different analyses.) The data, however, are entirely silent regarding the *comparative* elasticity of offending to policing and the *comparative* natural offending rates by racial group. They also lack information on the selective use of other search criteria by race. Without this information, the data can say little *empirically* about the narrow efficiency of racial profiling or about the impact of racial profiling

on the profiled crime and the profiled population. For example, equal *official* hit rates may mask higher *real* offending rates for minority motorists if the police rely less on other search criteria for minority motorists, or they could mask lower *real* offending rates for minority motorists if the police use additional sub-search processes for minority motorists, both of which would be consistent with bigotry. The official hit rates, it turns out, are extremely difficult to interpret.

When we correct for these deficiencies and make reasonably conservative assumptions from other available evidence, it becomes clear that racial profiling probably does *not* satisfy all three conditions. Minority motorists, in all likelihood, have slightly lower elasticity of offending to policing than white motorists because of reduced employment opportunities, and have slightly higher offending rates when drug trafficking is included. Under these conditions, racial profiling on the highways may well increase the amount of profiled crime and costs associated with police searches, resulting in numerically more white motorists offending because of a perceived sense of immunity. In addition, racial profiling on the highways is likely to have a ratchet effect on the profiled population, resulting in a greater disproportion of minority arrests or negative contacts with the police over and above the higher offending rate. This increase in negative police contacts will aggravate the disproportional representation of minorities in the correctional population, more unevenly distribute criminal records, supervision, and post-punitive collateral consequences, and significantly boost the public perception that minorities are drug users, traffickers, and couriers.

The central problems with racial profiling on the highways, then, are the likely ratchet effect on the profiled population and, possibly, an adverse long-term effect on the profiled crime and costs of police searches. These are not really problems about *racial* profiling, but problems about racial *profiling*.[17] Or to put it another way, these are problems that might infect any profiling scheme, whether based on race, or gender, or wealth, or class, or physical demeanor. Although practically everyone in the criminal justice field endorses criminal profiling as a law enforcement technique outside the racial profiling con-

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[17] In this sense, my thesis in this Article goes directly against that of Frederick Schauer in his most recent book, *Profiles, Probabilities, and Stereotypes* (Harvard 2003). Schauer argues that "the problems with racial profiling . . . are not problems of profiling, with race being merely an example. Rather, . . . the problem is about race and not about profiling." Id at 197–98. The purpose of this Article is to demonstrate the exact opposite: the problem is about profiling, not about race. The problem has to do with comparative elasticities and offending rates, and may plague any criminal profiling scheme, not just racial profiling.

text, the fact is that criminal profiling advances the larger interest of crime reduction only under very *specific* circumstances.

The ratchet effect is also a problem with criminal profiling more generally. What the ratchet effect does is violate a core principle of punishment theory, namely that anyone who is committing the same crime should face the same likelihood of being caught, and that race, gender, social status, class, wealth, or other irrelevant categories simply should not matter in that equation. When profiling *works*—when it targets a higher offending population—it likely produces a ratchet effect that violates this fundamental idea. It distributes the costs of the penal system along troubling lines—race, gender, class, status, wealth, and the like.[18] It runs against a basic ideal of our criminal justice system: that all similarly situated persons be treated alike. The best way to achieve that goal is to avoid criminal profiling entirely and to police color-blind, or gender-blind, or class-blind: rather than profile the wealthy for tax evasion, select at random; rather than profile on race for automobile searches, select color-blind.

Naturally, race is what makes racial profiling on the highways so controversial and, at least at the level of public rhetoric, so condemned. But it is important to rethink racial profiling through the lens of *criminal profiling*—to reduce race to the role that it purportedly plays in racial profiling, namely a predictive factor; to treat race no differently than we would gender, class, age, or any other profile that works; to take the focus away from race and place it on criminal profiling more generally.

Rethinking racial profiling through the lens of criminal profiling sheds light on and raises important questions about the larger issue of criminal profiling. The fact is that criminal profiling tends to accentuate the prejudices and biases that are built into the penal code. This is, naturally, all for the good when we come out on the winning side or when we punish the worst offenders. But it is problematic in the gray area of the criminal law, in the mass of cases that engulf the criminal justice system—the drug users, the quality-of-life offenders, the tax cheats. There, matters are less clear. The prejudices and biases of the penal law in those cases are more questionable. In the mass of criminal cases, criminal profiling may have adverse effects by aggravating

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18 There may well be certain profiles that distribute the costs along lines about which we are somewhat indifferent. So, for instance, we might not care about the distributional consequences of profiling along the lines of out-of-state tags or rental cars if these are, in fact, profiles that *work* (though it is often easy to find associations between these seemingly innocent traits and traits that do bother us). But most of the profiles that we care about and debate involve those more sensitive traits, such as race, gender, physical attributes, wealth, class, etc.

the correlations between status and crime. What criminal profiling does, in effect, is to leverage any structural tilt and exploit any associations between crimes and identifiable or profilable traits. It magnifies these correlations into carceral distortions. Racial profiling on the highways is a good example of this, but it is by no means the only example. The same would hold true for other forms of profiling, whether profiling the wealthy for tax evasion or single mothers for welfare fraud.

This Article is an attempt at ground clearing. It seeks to clarify the empirical controversies surrounding racial profiling and thereby shed light on the policy and constitutional law debates. The organization of the Article is as follows. Part I reviews and evaluates the recent economics literature on racial profiling, and argues that the new economic models focus attention on the wrong question and track the wrong statistic. Part II reviews and assesses the civil liberties scholarship on racial profiling, and contends that its response unwittingly embraces the logic of the economic models and perpetuates the problematic focus on hit rates. Part III reviews and assesses the constitutional framework that judges have constructed to resolve legal challenges to racial profiling and, based on the prior empirical analysis, offers an alternative approach. Part IV sets forth the type of empirical evidence that would be necessary to venture more informed speculation regarding the effects of racial profiling on the highways. Based on reasonably conservative assumptions from other available evidence, Part IV concludes that racial profiling on the roads likely does not meet the three narrow conditions that would satisfy the basic policy threshold or constitutional review. I conclude by raising critical questions about the larger issue of criminal profiling.

I. THE ECONOMICS LITERATURE

Drawing on Gary Becker's work on tastes for discrimination,[19] several economists are developing econometric models of racial profiling in an effort to distinguish between efficiency and racial animus in policing. The economic models rest on a few core assumptions. The first is that police officers seek to maximize the success rate of automobile searches given the cost of searching cars. The second is that the motorists who might be transporting drug contraband seek to maximize the payoff of carrying contraband; facing a negative payoff, they will not carry drugs. The third is that racist police officers experience a lower cost for searching minority motorists than for searching white

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[19] Gary S. Becker, *Accounting for Tastes* (Harvard 1996).

motorists. The fourth is that minority motorists offend at higher rates than white motorists.

Given these assumptions, the models predict that police officers will target minority motorists for police searches to maximize their search hit rates. Searching minority motorists disproportionately, however, will reduce the rate of minority offending: as the search rate of minority motorists increases, the payoff of transporting drugs among minority motorists decreases, and fewer minority motorists will carry drug contraband. Police officers will continue to search minority motorists disproportionately until the point of equilibrium where minority and white motorists offend at the same level.

At that point, it will be possible to distinguish between the efficient nonracist police officer and the racist officer who has a taste for discrimination. The efficient, nonracist police officer will no longer care about race and will try to maintain the distribution of searches so as to maintain equal search success rates. In fact, maintaining that equilibrium will reflect the fact that the police officer is efficient rather than racist. Maintaining that particular equilibrium will maximize the likelihood that the next search will be successful: if the police, on the one hand, were to search proportionally more minority motorists, they would be dipping into a pool of motorists with a hit rate below the hit rate they could achieve by searching an additional white motorist; on the other hand, if the police were to search proportionally more white motorists, given elasticity here too, the hit rate of white motorists would fall below that of similarly situated minority motorists, thus reducing overall efficiency.

Given a relatively fixed level of law enforcement resources, there is only one equilibrium point that will maximize hit rates if the police officer is not racist—the point at which the hit rates are the same across racial lines. At that equilibrium, the police officer is engaged in maximally efficient searches. In contrast, the racist police officer will continue to target more minority motorists because his cost of searching minority motorists is lower. In other words, at the efficiency equilibrium, he will still be able to maximize his utility (search success rate minus cost) by searching more minority motorists. Depending on how great a taste for discrimination this racist police officer possesses, he will find his own point of equilibrium at some distribution where the hit rate of minority motorists is below the hit rate of white motorists. The hit rate of searches, then, indicates whether the police officer is purely efficient or bigoted. John Knowles, Nicola Persico, and Petra Todd, some of the leading economists working on racial profiling, explain:

The key implication of the model is that if a police officer has the same cost of searching two subgroups of the population and if these two subgroups are searched at equilibrium, then the returns from searching will be equal across the subgroups. For example, suppose that searching one subgroup of motorists yielded a higher return. Then police would always search these motorists, who would in turn react by carrying contraband less often, until the returns to searching are equalized across groups. If the returns to searching are equal across *all* subgroups distinguishable by police, they must also be equal across *aggregations* of these subgroups, which is what we can distinguish in the data. Thus equality of the returns to searching can be tested without knowing all the characteristics observed by the police.[20]

This economic model of racial profiling can be represented in a graph, making some basic assumptions about offending and elasticity that will be discussed in greater detail in Part I.B below.[21] Graph 1 shows the relationship between the internal rate of searches conducted within each racial group to the offending rate of the different racial groups. At Time 1, the police are engaged in color-blind policing: assuming a certain level of searches, the police are searching both groups at the same internal search rate of 10 percent. If minority motorists represented 20 percent of the total motorists on the road, then the police would be searching 20 percent minority motorists and 80 percent white motorists. Given that distribution of searches by race, minority motorists are offending at a higher rate than white motorists—6 percent versus 4.5 percent—resulting in higher hit rates for minority motorist searches. This reflects the assumption that minority motorists are offending at a higher rate than white motorists.

Given the higher marginal hit rate for minority motorists, the police begin to search minority motorists far more than their share of the motorist population: as the proportion of searches targeting minority motorists increases, the offending rate of minority motorists decreases. The police continue to search marginally more minority motorists until Time 2 when the offending rates for white and minority motorists are the same—5 percent. Now the police are using race in the decision to search: the police are searching 20 percent of the minority motorists on the road and 7.5 percent of the white motorists on the road, resulting in a hypothetical total distribution of searches of, say, 60 percent

20   Knowles, Persico, and Todd, 109 J Polit Econ at 206 (cited in note 3).
21   I take full responsibility for this graphical representation. The economists developing the models of racial profiling have not attempted to translate their equations into graphs.

minority and 40 percent white motorists. At that distribution of searches, the offending rates are similar—and, one can infer, so are the hit rates. At that distribution, the efficient police officer has no reason to change the racial distribution of searches: the officer has no incentive to search more minority motorists than the 60/40 total distribution, which produces these different internal group search rates.

If the police officer is, in fact, searching more minority motorists and getting to Time 3, where the offending rate of minority motorists is lower than that of white motorists—4.8 percent versus 6 percent—then the officer must be racially bigoted. The only reason that the officer would search more minority motorists than at the Time 2 equilibrium—that is, would search, say, 70 percent minority motorists and 30 percent white motorists, instead of the Time 2 distribution of 60 percent minority and 40 white motorists—would be if the officer had a *taste* for discrimination resulting in higher utility even though fewer minority motorists were offending.

The three hypothetical distributions of searches—20/80, 60/40, and 70/30—correspond to three different sets of internal group rates of searches within the different racial groups. These three scenarios also correspond to the three equilibrium points for the color-blind, efficient, and racist police officer. The three scenarios are represented in Graph 1.[22]

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[22] This graph reflects many simplifying assumptions about the comparative elasticities among different racial groups, the comparative offending rates between racial groups, the selectiveness with which race is used in the searching process, and several other complicating matters. See Parts I.B and II.B.

GRAPH 1
An Economic Model of Racial Profiling
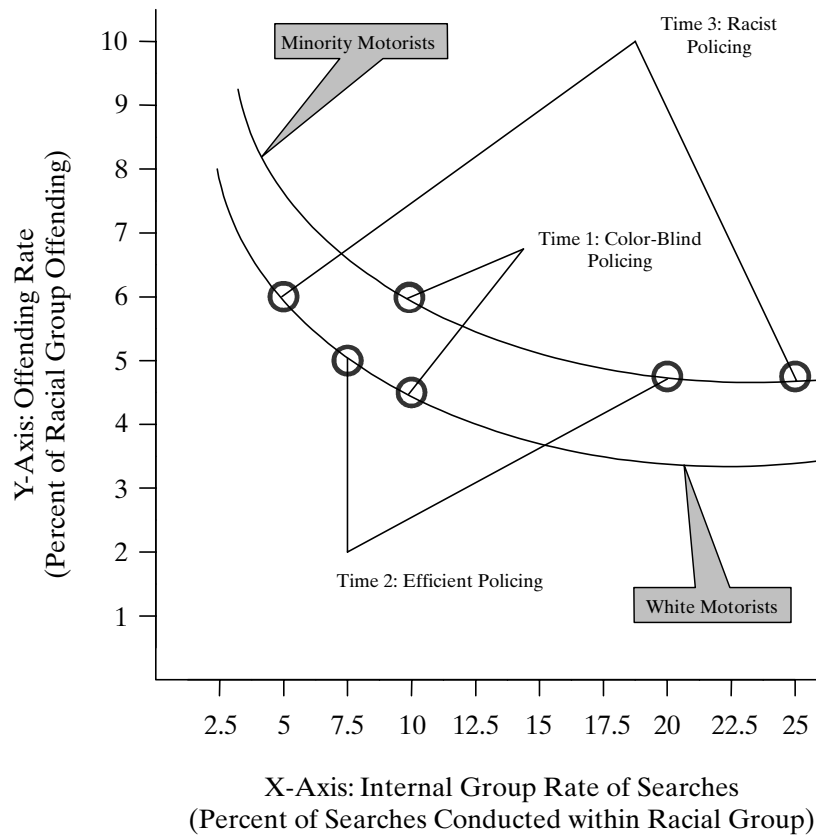
The basic assumptions reflected in the graph include, first, elasticity among both citizen motorists and police officers. Motorists, whether minority or white, are assumed to reduce their drug trafficking on the road when the police increase the proportion of searches conducted on members of their racial group. As Rubén Hernández-Murillo and John Knowles explain: "The key assumption in the analysis is that while motorists differ in their propensity to carry contraband, those who face a high probability of being searched will tend to reduce their probability of carrying contraband in the vehicle."[23] This is

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[23] Hernández-Murillo and Knowles, *Racial Profiling or Racist Policing?* at 3 (cited in note 3). See also Knowles, Persico, and Todd, 109 J Polit Econ at 212 (cited in note 3) ("Our model assumes that motorists respond to the probability of being searched.").

the assumption of elasticity of offending to policing—more technically, of transporting drug contraband to police searches. In this Article, I will refer to this as "the elasticity of offending to policing" or sometimes by the shorthand "elasticity." Police officers as well are assumed to respond to the likelihood of successful searches, targeting their searches at populations with higher hit rates.

Another key assumption reflected in the graph is that African-Americans have a higher rate of transporting drug contraband, all other things equal. If it takes such disproportionate searches of African-Americans and whites (for example, 63 percent versus 29 percent in Maryland) to achieve comparable success rates for searches (34 percent versus 32 percent respectively in Maryland),[24] this assumes that African-Americans would offend at a much higher rate than whites if they were being stopped in proportion to their representation on the road. As Knowles, Persico, and Todd explain: "Our model implies that at equilibrium, both races should have the same probability of carrying drugs, but one race may be searched more often than another. In fact, searching some groups more often than others may be *necessary* to sustain equality in the proportions guilty across groups."[25]

A final key assumption reflected in the graph has to do with the way in which racism manifests itself—namely, through the lower cost to racist police officers of searching minority motorists. It is in this sense that the crux of the economic models is derived from Gary Becker's work on discrimination, specifically on the central insight that "tastes for discrimination lead to lower profits for the discriminators."[26] By assuming that all police officers seek to maximize the search success rate minus the cost of searching, and that racism enters the picture by means of the cost of conducting a search, the economic models are able to factor out of the analysis all the other traits that lead police officers to search motorists—such as age, tinted windows, bumper stickers, car model, etc. As discussed below in Part I.B, this is both a strength and weakness of the economic models.

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[24]   Knowles, Persico, and Todd, 109 J Polit Econ at 218 (Table 1), 222 (Table 2) (cited in note 3).

[25]   Id at 227. See also Borooah, 17 Eur J Polit Econ at 35 (cited in note 3) ("If the likelihood of being stopped was the same for blacks and whites, then the likelihood of being arrested after a stop would be substantially higher for blacks.").

[26]   Knowles, Persico, and Todd, 109 J Polit Econ at 208. See generally Becker, *Accounting for Tastes* at 140–42 (cited in note 19) (noting that "when minority members are a sizable fraction of the total [population], discrimination by members of the majority injures them as well [as the minority members]").

One additional point. When the economists investigate data revealing disproportionate searches of minority motorists, their models do not attempt to explain away the disproportionality by holding constant other search criteria. Instead, they essentially assume that the imbalance is intentional and attempt to test the data to explain whether the inequality is due to statistical discrimination or racial bigotry. In this sense, the economists' approach differs significantly from the more traditional multiple-regression approach of political scientists—represented, for example, by the work of Mitchell Pickerill, Clayton Mosher, Michael Gaffney, and Nicholas Lovrich. These political scientists focus their research on identifying the other possible traits that may account for police searches to determine whether the contribution of race vanishes when other nonracial factors are held constant.[27]

In most cases, the economists' approach seems more realistic given that the rates of disproportionality are consistent and often high. In Maryland, for instance, between January 1995 and January 1999, 63 percent of those stopped and searched by the state police along Interstate I-95 were African-American, and 29 percent were white.[28] Other similar statistics have been rehearsed in leading law review articles and books. In Volusia County, Florida, on a stretch of I-95 in the mid- to late-1980s, 70 percent of those stopped were minority motorists and 80 percent of the cars searched belonged to minority motorists, even though minorities represented only 5 percent of motorists.[29] In Illinois in the early 1990s, under "Operation Valkyrie," the state police searches were comprised of approximately 30 percent Hispanic drivers even though Hispanics represented only about 8 percent of the state population.[30] In litigation in New Jersey, the state court credited defense experts' findings that suggested absolute disparities of 32.7 percent (46.2 percent of stops were of African-Americans, 13.5 percent of drivers were African-American) and 22.1 percent (35.6 percent stops of African-Americans, 13.5 percent African-American drivers)

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[27] See J. Mitchell Pickerill, et al, *Search and Seizure, Racial Profiling and Traffic Stops on Washington State Highways* 15–26 (unpublished paper prepared for annual meeting of the Law & Society Association, Pittsburgh, Pennsylvania, June 5–8, 2003) (on file with author).

[28] Knowles, Persico, and Todd, 109 J Polit Econ at 218 (Table 1) (cited in note 3).

[29] See Harris, *Profiles in Injustice* at 62–64 (cited in note 8). See also Rudovsky, 3 U Pa J Const L at 300 (cited in note 8); Russell, 3 Rutgers Race & L Rev at 73 (cited in note 1).

[30] See generally Rudovsky, 3 U Pa J Const L at 300–01; Harris, *Profiles in Injustice* at 64–66 (cited in note 8). See also *Chavez v Illinois State Police*, 251 F3d 612, 634–48 (7th Cir 2001) (reviewing the empirical evidence of racial profiling and rejecting the equal protection claim).

based on stops at different intervals of the New Jersey Turnpike.[31] In other policing contexts, the racial disproportionalities are often also very high.[32] Given these data, the economic models focus attention on the right issue—not whether the disproportionality can be explained away, but rather whether it reflects racial prejudice. Let's turn now to the specific contributions.

A.   The Economic Models of Racial Profiling

   1.   Knowles, Persico, and Todd (2001).

In *Racial Bias in Motor Vehicle Searches: Theory and Evidence*, John Knowles, Nicola Persico, and Petra Todd develop a model of police officer and citizen motorist behavior to test whether recent empirical data concerning police searches of vehicles on Interstate 95 in Maryland reflect efficient policing—what they refer to as "statistical discrimination"—or racial animus. Their model of citizen and police behavior uses the rationality assumptions discussed above; the ultimate determination whether the police are racially prejudiced, then,

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[31]   See *State v Soto*, 324 NJ Super 66, 734 A2d 350, 353 (1996). See generally Harris, *Profiles in Injustice* at 53–60 (cited in note 8); Rudovsky, 3 U Pa J Const L at 299–300 (cited in note 8); Russell, 3 Rutgers Race & L Rev at 74–75 (cited in note 1). Civil liberties advocates also refer to Philadelphia, where the ACLU analyzed police stops of motorists and pedestrians in several districts in the late 1990s and found significant disparities. See generally Rudovsky, 3 U Pa J Const L at 301; Russell, 3 Rutgers Race & L Rev at 73–74. "For a one-week period in July, 1999, for car and pedestrian stops made in predominantly white police districts, the ratio of African-Americans who were stopped was up to ten times higher than one would expect from population data." Rudovsky, 3 U Pa J Const L at 301. Data from the Richmond, Virginia, Police Department from 2000 reveals that the percentage of automobile stops that resulted in a search was most likely determined by location in a predominately African-American neighborhood. See Matthew Petrocelli, Alex R. Piquero, and Michael R. Smith, *Conflict Theory and Racial Profiling: An Empirical Analysis of Police Traffic Stop Data*, 31 J Crim Just 1, 7 (2003). Data from San Diego for the year 2001 reveal that "[o]n average, Black/African American drivers had about a 60% greater chance of being stopped during the year than White drivers; the comparable figure for Hispanic drivers was about 37% greater than for White drivers." Gary Cordner, Brian Williams, and Alfredo Velasco, *Vehicle Stops in San Diego: 2001* 2 (San Diego Police Department Nov 2002), online at http://www.sannet.gov/police/pdf/stoprpt.pdf (visited Aug 19, 2004). Data from the San Jose Police Department for 2001 reveal that Hispanic and African-American motorists are stopped at a higher rate than their demographic representation. See San Jose, California, Police Department, *Vehicle Stop Demographic Study* 6 (2002), online at http://www.sjpd.org/images/VehicleStops2001.pdf (visited Aug 23, 2004); *Racial Profiling: Limited Data Available on Motorist Stops* 1 (GAO Mar 2000), online at http://www.gao.gov/new.items/gg00041.pdf (visited Aug 19, 2004) (reviewing five early racial profiling studies and finding that, although the studies contain methodological limitations, "the cumulative results of the analyses indicate that in relation to the populations to which they were compared, African American motorists in particular, and minority motorists in general, were proportionately more likely than whites to be stopped on the roadways studied").

[32]   See, for example, Bernard E. Harcourt, *Illusion of Order: The False Promise of Broken Windows Policing* 173–75 (Harvard 2001) (discussing New York City stop-and-frisks).

turns on whether the hit rates are lower for minority motorists. "[I]f police are prejudiced," Knowles, Persico, and Todd explain, "the equilibrium returns to searching members of the group that is discriminated against will be below average."[33]

Knowles, Persico, and Todd apply their model to the Maryland data, finding that the police in Maryland disproportionately target African-Americans for searches of their vehicles.[34] Between January 1995 and January 1999, 63 percent of the persons stopped and searched by the state police along I-95 were African-American and 29 percent were white (of a total 1,590 observations).[35] The assumed proportion of African-American drivers on the road was roughly 18 percent.[36] In contrast, both groups have nearly equivalent offending rates based on those searches. With regard to African-Americans, 34 percent of the searches turn up some evidence of drug carrying; with regard to whites, 32 percent of the searches turn up some evidence of drugs.[37]

Based on data concerning the raw number of drug seizures, Knowles, Persico, and Todd conclude that there is no evidence that the police officers are displaying a taste for discrimination. They write that "[a]lthough African-American motorists are much more likely to be searched by police, the proportion of guilty motorists among whites and African Americans whose cars are searched is nearly identical (0.32 vs. 0.34)—a result that is consistent with the hypothesis of no racial prejudice."[38] In contrast, they do find racial prejudice against Hispanics because the success rate of searches is far lower—11 percent.[39] In other words, far more Hispanics are being stopped than would be necessary to get them to offend less (assuming they had higher natural offending rates).

Based on data concerning drug seizures of amounts that exceed the felony threshold,[40] however, Knowles, Persico, and Todd find racial discrimination but discover that the prejudice works against whites. Their results here are that African-Americans are significantly more

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33   Knowles, Persico, and Todd, 109 J Polit Econ at 208 (cited in note 3).

34   A number of other studies also explore the Maryland data. See Gross and Barnes, 101 Mich L Rev at 662–95 (cited in note 2); John Lamberth, *Report of John Lamberth on Racial Disparities in Police Searches along the I-95 Corridor* (1996), online at http://archive.aclu.org/court/lamberth.html (visited Aug 19, 2004).

35   Knowles, Persico, and Todd, 109 J Polit Econ at 218.

36   Id at 204.

37   Id at 222.

38   Id at 219.

39   Id at 222 ("The lower guilty rate for Hispanics is suggestive of prejudice against this group.").

40   Id at 225–26.

likely to be found guilty than white motorists—13 percent versus 3 percent. The authors conclude:

> In our data, vehicles of African-American motorists are searched much more frequently than those of white motorists. However, the probability that a searched driver is found carrying any amount of contraband is very similar across races. Thus we cannot reject the hypothesis that the disparity in the probability of being searched is due purely to statistical discrimination and not to racial prejudice. When we look at the probability that a searched driver is carrying contraband in excess of a high threshold, this probability is higher for African Americans. Under our model, this would imply a bias against white motorists.[41]

2.   Hernández-Murillo and Knowles (2003).

In *Racial Profiling or Racist Policing?: Testing in Aggregated Data*, Rubén Hernández-Murillo and John Knowles apply the Knowles, Persico, and Todd model to aggregated Missouri data and find that the data are consistent with racial prejudice rather than statistical discrimination. The data set from Missouri consists of aggregated data by race and police force from an annual report published by the State of Missouri, the "2001 Annual Report on Missouri Traffic Stops," mandated by the recently revised Traffic Regulation Laws.[42]

The core data reveal the following: the proportion of each group stopped in Missouri is 31.5, 43.1, and 31.7 percent respectively for whites, African-Americans, and Hispanics. The proportion of stops that lead to a search is 6.5, 11.4, and 12.9 percent respectively for whites, African-Americans, and Hispanics. The hit rate for drugs is 19.7, 12.3, and 9.8 percent respectively.[43] Based on this aggregated data, Hernández-Murillo and Knowles "reject statistical discrimination as an explanation of the higher search rates of African-Americans and Hispanic motorists in Missouri,"[44] because searches of minority motorists "are less likely to be successful, with significantly lower probability of turning up drugs or other contraband."[45] They calculate that 18 percent of the excess search rate of African-Americans would be elimi-

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41   Id at 206–07.

42   Hernández-Murillo and Knowles, *Racial Profiling or Racist Policing?* at 4 & n 4 (cited in note 3).

43   Id at 31 (Table 1).

44   Id at 4.

45   Id at 5.

nated "if search rates were set so as to equalize success rates across racial groups."[46]

Because the data are aggregated and not individual observations, the authors are not able, strictly speaking, to hold other relevant variables—such as type of search—constant. The State of Missouri in fact argues in the report that the lower hit rates for African-Americans and Hispanics may stem from higher rates of arrest and mandatory search,[47] but Hernández-Murillo and Knowles use sophisticated (non-parametric) statistical methods in an effort to take account of this variable (given that they have the relative arrests/searches rate), and contend that this factor does not account for the racial differentials. They conclude: "We found strong evidence in support of racial bias against African-American motorists, even when controlling for sex and age."[48]

3. Borooah (2001).

In *Racial Bias in Police Stops and Searches: An Economic Analysis*, Vani Borooah develops a similar model of police behavior intended to distinguish between bigotry and efficiency, which he calls "business necessity," and applies it to data from the British Home Office on stops and searches of citizens in ten police areas in England. He finds wide disparities in the proportion of the racial groups searched, but far lower disparities in the rates of success, and concludes that the only discrimination is "on grounds of business necessity."[49] Borooah deduces that the racial disparities in stops are "untainted by racism" and have contributed positively to the efficiency of policing.[50]

Borooah's enthusiasm rests, in part, on his belief that "statistical discrimination [business necessity], untainted by bigotry, is optimal from a policing perspective because it maximizes the number of arrests consequent upon a given number of persons stopped."[51] But he realizes that there is a tradeoff between efficiency and the appearance of fairness with regard to the stops, and that the ultimate decision is a normative one. Borooah is agnostic about questions of fairness. He recognizes that societies may prefer to equalize the likelihood of being stopped and searched, or may want to equalize the rate of success

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[46] Id.

[47] Id at 4–5.

[48] Id at 26.

[49] Borooah, 17 Eur J Polit Econ at 35 (cited in note 3).

[50] Id at 36.

[51] Id at 19.

of searches. As he suggests: "The conflict between the two types of equality arises because they represent different perspectives to the welfare aspects of police stops."[52]

B.   A Critique of the Economic Models of Racial Profiling

The problem with the economic models of racial profiling is that they do not properly specify what counts as "success" for purposes of a highway drug interdiction program. The models assume that a non-racist police officer seeks to maximize the rate of successful searches that discover drug contraband. That, however, is simply the wrong objective. The proper goal for the police is to minimize the social cost of crime—in this case, to minimize the transportation of drug contraband on the highways and the social cost of policing. And the fact is, under certain identifiable conditions, minimizing the social costs of crime is at odds with maximizing search success rates. Under certain conditions, statistical discrimination leads to *higher* overall social costs associated with the profiled crime and the costs of searches. Under these conditions, racial profiling on the highways is socially counterproductive and should be avoided. The use of racial profiling under these circumstances would amount to a racist practice—whether intentionally or not—because it would disproportionately target minority motorists while increasing the overall costs to society: it would use a race classification without promoting a law enforcement interest.

1.   Rethinking success.

The economic models focus the definition of policing efficiency exclusively on maximizing search success rates. Knowles, Persico, and Todd, for instance, draw the line between efficiency and racial bigotry in the following terms: "Police may use race as a criterion in traffic stops *because they are trying to maximize successful searches* and race

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[52]   Id at 27. Shanti Chakravarty, in a critique of Borooah, takes Borooah to task for failing to recognize that bigotry and business necessity may be commingled. Chakravarty argues that the data may be contaminated because, if both groups have the same likelihood of offending, the bigotry in the selection of persons to stop and search is not wiped away by the similarity of the offending rates. See Chakravarty, 18 Eur J Polit Econ at 605 (cited in note 3). In reply, Borooah calls this a "fairly obvious" point. The "whole point of my paper," he argues, is that under conditions of elasticity, the similar success rates show nonprejudice. Borooah, 18 Eur J Polit Econ at 607 (cited in note 3). The data suggest that "Blacks have a greater mean probability of offending than Whites." Id. Because the rates of success are the same, the data show no bigotry. As a result, the argument against racial profiling, Borooah explains, does not go to the effectiveness of policing, but to the costs of stopping more blacks. It is about "the *consequences* of policing in terms of harassing the innocent and, as a corollary, in terms of the broader message that is issued to the Black community at large." Id at 608.

helps predict criminality or because they prefer stopping one racial group over another."[53] The only other factor that the authors take into account—other than the success rate of searches—is "the cost of searching motorists" in terms of police time, effort, and taste for discrimination.[54]

What is absent from the models is the effect of racial profiling on the absolute number of motorists transporting illicit drugs.[55] The long-term consequences on the *amount* of the profiled crime are simply not factored into the economic models. This is problematic because the two objectives—maximizing search success rates and minimizing crime—may conflict under certain conditions. If the police shift their allocation of resources away from white motorists and toward minority motorists, the offending rate among minority motorists may well decrease, but simultaneously the offending rate among white motorists may increase. The problem is, of course, that there are more white motorists. Depending on the relationship between the comparative elasticity of offending to policing as between white and minority motorists and the comparative offending rates, the total increase in white motorist offending in absolute numbers may outweigh the total decrease in absolute numbers of minority offending.

Assuming fixed law enforcement resources, racial profiling will reduce total crime only if the ratio of the minority to white motorist population is greater than the differential of the change in offending by race. Whether this condition is satisfied or not, however, will depend entirely on comparative elasticities and offending rates. Let me be more precise. In terms of notation, let $r \in \{M, W\}$ denote the race

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53   Knowles, Persico, and Todd, 109 J Polit Econ at 205 (cited in note 3) (emphasis added).

54   Id at 205–06 ("Our model assumes that the police maximize the number of successful searches, net of the cost of searching motorists.").

55   Many other commentators who discuss policing efficiency make the same error and draw on a similarly narrow definition of success. John Derbyshire, for instance, also focuses narrowly on the police officer trying to maximize his arrests: "A policeman who concentrates a disproportionate amount of his limited time and resources on young black men is going to uncover far more crimes—*and therefore be far more successful in his career*—than one who biases his attention to, say, middle-aged Asian women." John Derbyshire, *In Defense of Racial Profiling*, 53 Natl Rev 38, 39 (Feb 19, 2001) (emphasis added). See also George Will, *Exposing the "Myth" of Racial Profiling*, Wash Post A19 (Apr 19, 2001) (attributing the disproportion in stops of minority motorists to effective policing, and noting the "truism" that "minority groups dominate . . . [drug] trafficking"); Jackson Toby, *Racial Profiling Doesn't Prove Cops Are Racist*, Wall St J A22 (Mar 11, 1999) (arguing that "if drug traffickers are disproportionately black or Hispanic, the police don't need to be racist to stop many minority motorists; they simply have to be efficient in targeting potential drug traffickers"). See generally Gene Callahan and William Anderson, *The Roots of Racial Profiling: Why Are Police Targeting Minorities for Traffic Stops?*, Reason 37 (Aug–Sept 2001) (noting, in the context of discussing commentators' diverse reactions to racial profiling, that "[i]f police have a goal of maximizing drug arrests, they may indeed find that they can achieve this most easily by focusing on minorities").

of the motorists, either minority or white. Let Pop_r denote the representation of each racial group in the total population. Let O_r denote the offending rate of each racial group. Let ΔO_r denote the absolute value of the change in the offending rate of the racial group from Time 1 to Time 2.

Racial profiling will be beneficial from a long-term crime fighting perspective only if total crime at Time 1 (pre–racial profiling) is greater than total crime at Time 2 (with racial profiling). This happens if:

$$Pop_M O_M + Pop_W O_W > [Pop_M(O_M - \Delta O_M)] + [Pop_W(O_W + \Delta O_W)] \quad (1)$$

We can rewrite this equation as follows:

$$\frac{Pop_M}{Pop_W} > \frac{\Delta O_W}{\Delta O_M} \quad (2)$$

From equation (2), racial profiling will decrease overall crime only if the ratio of the minority to white motorist population—"the population differential"—is greater than the ratio of the absolute value of the change in white motorist offending to the absolute value of the change in minority motorist offending—"the differential of the change in offending by race."

If we assume that minority motorists represent approximately 20 percent of the motorists on the road—in Maryland, for example, research reveals that African-American motorists represent 17 to 18 percent of the motorists—we can substitute estimated values for the population differential. What this suggests is that racial profiling is effective as a long-term crime fighting strategy only if:

$$0.25 > \frac{\Delta O_W}{\Delta O_M} \quad (3)$$

In other words, for racial profiling to work, it has to be the case that the change in the offending rate of minority motorists is more than four times *greater* than the change in the overall offending rate of white motorists. If the minority representation is smaller than 20 percent, the required differential in the change of offending must be even greater. By the same token, if the minority representation is larger, then the required differential in the change in offending need not be as large. To put some numbers on this, if the minority population represents 12 percent of the total population, then the change in the

minority offending rate must be at least 7.4 times greater than the change in the offending rate of white motorists. If the minority population represents 28 percent of the total population, then the change in the minority offending rate has to be at least 2.6 times greater. The smaller the minority population, the larger the required differential on change of offending rates.

Whether this ratio is satisfied depends on the relative elasticity of offending to policing and the relative offending rates of the two racial groups. If minority motorists have the same elasticity of offending to policing as white motorists, then racial profiling will work if the offending rate of minority motorists is greater than the offending rate of white motorists at Time 1 (under conditions of no racial profiling). As I demonstrate in the more technical Appendix, the reason is that, by definition, if the elasticity is the same as between racial groups and there are resource constraints, the change in offending of the two racial groups will reflect the population differential. By definition, if elasticity is the same, then the following will also be true:

$$\frac{\Delta O_W}{\Delta O_M} = \frac{O_W}{4O_M} \qquad (4)$$

If we substitute this into equation (3), then racial profiling will reduce crime only if the offending rate of minority motorists (O_M) is greater than the offending rate of white motorists (O_W) under conditions of no racial profiling. The same is true if minority motorists have higher elasticity of offending to policing than white motorists.

But if minority motorists have *lower* elasticity than white motorists, then racial profiling will decrease the profiled crime only if the offending rate differential at Time 1 is greater than the difference in elasticity. Let E_r denote the elasticity of each racial group. If E_M is less than E_W, we can denote the relationship in the following way:

$$xE_M = E_W \quad \text{where} \quad x > 1 \qquad (5)$$

If we assume that minority motorists have lower elasticity by a factor of x, then, by definition and substituting into equation (3), racial profiling will decrease the profiled crime only if the following condition holds true:

$$O_M > xO_W \qquad (6)$$

In other words, if minority motorists have *lower* elasticity than white motorists, racial profiling will decrease the amount of profiled crime only if minority motorist offending is greater than white motorist offending times the elasticity differential. If, for example, white motorist elasticity is two times greater than minority motorist elasticity, then racial profiling will reduce crime only if minority motorist offending is more than two times greater than white motorist offending.

As a result, the key statistics for purposes of determining the effect of racial profiling on the profiled crime are the elasticity and offending differentials. If minority motorists have lower elasticity, racial profiling may well increase overall profiled crime. The problem with the narrow definition of efficiency—maximizing search success rates—is that it may effectively mask racial prejudice. If a police officer or police department engages in disproportionate searches of minority motorists in order to maximize the success rate of searches and pays no attention to the consequences on long-term trends in the transportation of drug contraband—or if we as modelers and policymakers focus on narrow efficiency—then the police may endorse a scheme of racial profiling that may in fact promote more crime in the long term. The police may promote, whether intentionally or unwittingly, a policy that discriminates on the basis of race and increases overall crime. That would not be efficient. To the contrary, it would in effect be racially prejudiced.

What is most troubling is that there are good reasons to suspect that minority and white motorists may have different elasticities of offending to policing and that the elasticity of minority motorists may be *less* than that of white motorists. Elasticity is going to depend in large part on the existence of legitimate work alternatives, as well as on different cultural scripts and community norms. Economist Nicola Persico suggests that, as a theoretical matter, the elasticity for African-Americans may be less than for whites because they may have fewer job opportunities and therefore fewer alternatives to crime. As Persico explains, "the amount of criminal activity—and hence also the elasticity of crime to policing—depends on the distribution of legal earning opportunities."[56] This may affect the transportation of illicit drugs for personal use as well as the substitutability of drug couriers.

A couple of additional observations. First, the analysis has assumed fixed law enforcement resources. This is, after all, the most realistic, reasonable, and conservative assumption, since the police budget is fixed by political processes that have little to do with hit rates or ef-

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56   Persico, 92 Am Econ Rev at 1474 (cited in note 3).

fects on profiled crime. Nevertheless, even if we relax the assumption of resource constraint, the same analysis would apply to the allocation of the additional police resources. Under conditions of lower elasticity, maximizing search success rates may possibly increase overall crime.

Second, it is important to emphasize that the problem with the economic models of racial profiling is *not* that the economists *over-value* efficiency.[57] The problem is that they do not define efficiency properly in the policing and criminal justice context. A proper model of police behavior would assume that police departments and police officers seek first and foremost to minimize the number of persons carrying drug contraband on the highway. If searches are the most effective way to promote this objective—more effective, for instance, than advertisements or public announcements—then, and only then, should the police seek to allocate resources to maximize search success rates minus the cost of searching cars.

This discussion has been somewhat technical and abstract, but the point can be made more directly with one simple hypothetical. Let us assume a city with a population of one million residents, of which 20 percent (200,000) are minorities and the other 80 percent (800,000) are majorities. Let's assume that the police search 1 percent of the population each year, effectively conducting 10,000 stop-and-searches per year, and that, in Year 1, the police stop and search randomly—they are color-blind. In order to make the profiling in Year 2 nonspurious, let's also decide that minorities offend at a higher rate, say 8 percent, versus majorities who offend at a rate of 6 percent. Under these assumptions, the searches will prove successful in the case of 8 percent of the 2,000 minority searches (or 160 minority searches) and 6 percent of 8,000 majority searches (or 480 majority searches). As for the total criminal population in the city, it would consist of 16,000 minorities (8 percent of the total 200,000 minority population) and 48,000 majorities (6 percent of the total 800,000 majority population)—or a total of 64,000 offenders overall. We can reflect these simple assumptions and results in Table 1:

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[57] Most of the economists recognize fully that the goal of narrow efficiency may be offset by other social ends. "Statistical discrimination, even if not due to prejudice, may be considered unfair because innocent drivers experience different probabilities of being searched depending on their race." Knowles, Persico, and Todd, 109 J Polit Econ at 228 (cited in note 3). Borooah also recognizes that statistical discrimination "may be reprehensible to society" and that "society may prefer its police to implement a 'colour-blind' policy." Borooah, 17 Eur J Polit Econ at 19 (cited in note 3).

TABLE 1

	Total	**Minority**	**Majority**
City population	1,000,000	200,000 (20%)	800,000 (80%)
Police searches	10,000	2,000 (20%)	8,000 (80%)
Searches as % of relevant population	1%	1%	1%
Offending rate	6.4%	8%	6%
Successful searches	640	160 (8% of 2,000)	480 (6% of 8,000)
Number of offenders	64,000	16,000 (8% of 200,000)	48,000 (6% of 800,000)

Now, let us assume in Year 2 that the police decide to profile minorities for searches since they have a higher offending rate. The increased searches of minorities will decrease their offending patterns since they will find offending more costly, and therefore less attractive. On the flip side, majorities will offend more now that they are being searched less. Let's assume, then, that the police decide to search twice as many minorities, and that the police have the same amount of resources and so can only search 1 percent of the population. In Year 2, the police search 4,000 minorities and 6,000 majorities. Moreover, the police profile to this point because it is the most efficient point from a search perspective—the point, according to the economic model of racial profiling, where the offending rates are the same as between minorities and majorities. Let's decide that the two groups have different elasticities of offending to policing: minority offending goes down to 7 percent and majority offending goes up to 7 percent. Table 2 shows the effect on successful searches and on total crime, using the same computation on the new values for Year 2:
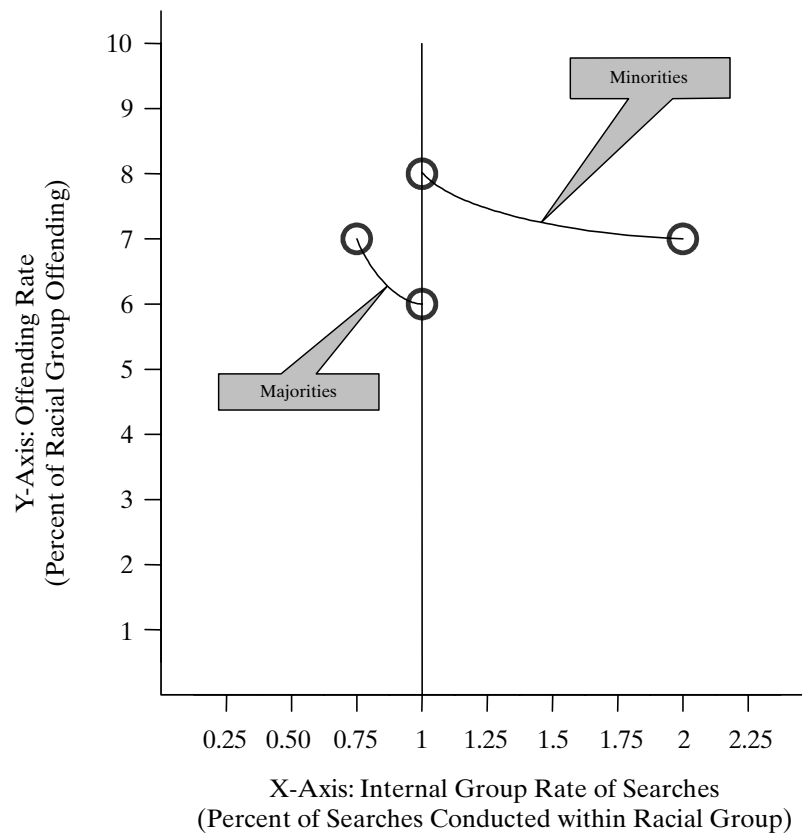
TABLE 2

	Total	Minority	Majority
City population	1,000,000	200,000 (20%)	800,000 (80%)
Police searches	10,000	4,000 (40%)	6,000 (60%)
Searches as % of relevant population	1%	2%	0.75%
Offending rate	7%	7%	7%
Successful searches	700	280 (7% of 4,000)	420 (7% of 6,000)
Number of offenders	70,000	14,000 (7% of 200,000)	56,000 (7% of 800,000)

Clearly, the use of racial profiling has increased the efficiency of the police searches. The same number of police searches has produced a higher number of successful searches—searches that have discovered contraband. And in fact, this is the optimally efficient allocation of resources from the perspective of successful searches because it is the point where the hit rates are the same.

However, the racial profiling has also *increased* the overall amount of crime in the city. Whereas before there were 64,000 offenders in the city, now there are 70,000 offenders. Why? Because the elasticity of minorities is less than that of majorities. The shift in policing has reduced the offending of minorities, but increased the offending of majorities—and there are more majorities in the city. In other words, the increased efficiency of racial profiling has also increased overall crime in the city.

What makes this so troubling in the real world is that we have no data on how the elasticities compare as between the two groups. Assuming lower elasticity for minorities, racial profiling may very well increase overall crime. In fact, it *will* increase crime in our hypothetical so long as the hit rates equalize above 6.4 percent, which was the average offending rate for the total population in Year 1. The relative elasticities and offending rates are visually represented in Graph 2. Note that, as long as the equal hit rate exceeds 6.4 percent, profiling in Year 2 will be more efficient in terms of successful searches but counterproductive in terms of total crime in society.

GRAPH 2
Offending Rates at Different Levels of Internal Search Rates

Y-Axis: Offending Rate
(Percent of Racial Group Offending)

X-Axis: Internal Group Rate of Searches
(Percent of Searches Conducted within Racial Group)

2.   An alternative model.

In order to model police behavior properly, we must focus not on maximizing search success rates, but on minimizing the costs associated with the profiled crime, including the social costs of the crime itself and of the policing technique.[58] Here, we need not assume fixed police budgetary resources, because the analysis would be the same with or without resource constraints. First, we must minimize the costs to society defined in terms of the profiled crime. For purposes of notation, let D denote the social loss associated with one instance of the profiled crime, namely the transportation of illicit drugs on the high-

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[58]   Special thanks to Gary Becker for helping me think through this model.

way.[59] Let I_r denote the rate at which motorists are being searched. O_r (defined earlier as the internal rate of offending for each group) is a function of I_r and so will be noted accordingly. In more technical terms, then, the cost to society associated with the profiled crime can be captured by the following expression:

$$D \ \left[O_M(I_M)Pop_M \ + \ O_W(I_W)Pop_W \right] \tag{7}$$

Second, we need to minimize the social costs associated with searching motor vehicles for contraband. For purposes of notation, let Q denote the cost associated with one instance of a police search.[60] In more technical terms, the cost to society associated with the searches of automobiles can be captured by the following expression:

$$Q \ \left[I_M Pop_M \ + \ I_W Pop_W \right] \tag{8}$$

To minimize the total costs to society, we would need to take the derivative of the total cost function, denoted as C_r, which would be a function of I_r and would contain both equations (7) and (8). The total cost function can be expressed as follows:

$$C_M(I_M) \ + \ C_W(I_W) \ = $$
$$D \ \left[O_M(I_M)Pop_M \ + \ O_W(I_W)Pop_W \right] + \ Q \ \left[I_M Pop_M \ + \ I_W Pop_W \right] \tag{9}$$

Using partial differentiation to resolve separately for the two racial groups, if we were to minimize the social costs, it would produce the following:

$$C_r'(I_r) \ = \ D \ \left[O_r'(I_r)Pop_r \right] + \ Q \ Pop_r \tag{10}$$

If we solve for the case where cost is zero, and rewrite the equation, we would obtain the following:

$$-\frac{Q}{D} \ = \ O_r'(I_r) \tag{11}$$

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[59]   It is assumed here that the social cost is the same for all incidents, regardless of the type of drugs, the quantity, or the race of the carrier. This is, naturally, a simplifying assumption given that the transportation of drugs for personal use or for drug trafficking have very different costs for society as a whole.

[60]   Here too it is assumed that the social cost is the same for all searches, regardless of the type of car, the kind of search, or the race of the motorist.

Since we are assuming that Q and D are the same for white and minority motorists—that is, we are assuming nonracist police officers—minimizing total social costs produces the following first-order condition:

$$O'_M(I_M) \;=\; O'_W(I_W) \tag{12}$$

Since $O'_r(I_r)$ is the slope of O_r at point I_r, or $[\Delta O_r / \Delta I_r]$, we can rewrite this first-order condition as follows:

$$\frac{\Delta O_M}{\Delta I_M} \;=\; \frac{\Delta O_W}{\Delta I_W} \tag{13}$$

We can rewrite this as follows, multiplying both sides by 1:

$$\frac{\Delta O_M}{\Delta I_M}\;\frac{I_M}{O_M}\;\frac{O_M}{I_M} \;=\; \frac{\Delta O_W}{\Delta I_W}\;\frac{I_W}{O_W}\;\frac{O_W}{I_W} \tag{14}$$

Given the definition of elasticity and using E_r to denote elasticity, the first-order condition can be expressed as follows:

$$E_M\;\frac{O_M}{I_M} \;=\; E_W\;\frac{O_W}{I_W} \tag{15}$$

This first-order condition must be satisfied to minimize the total social costs associated with the illicit transportation of drug contraband on the highways. Whether the condition is satisfied will depend on the comparative elasticities, natural offending rates, and search rates. It is possible to construct a three-by-three table to identify the conditions under which the police should search different racial groups at different rates. Table 3 summarizes the nine findings:

TABLE 3
Minimizing Total Social Costs

	$E_M = E_W$	$E_M < E_W$	$E_M > E_W$
$O_M = O_W$	$I_M = I_W$ (No Racial Profiling)	$I_M < I_W$ (Profile Whites)	$I_M > I_W$ (Profile Minorities)
$O_M > O_W$	$I_M > I_W$ (Profile Minorities)	$I_M < I_W\,[O_M/O_W]$ (Not Clear)	$I_M > I_W$ (Profile Minorities)
$O_M < O_W$	$I_M < I_W$ (Profile Whites)	$I_M < I_W$ (Profile Whites)	$I_M > I_W\,[O_M/O_W]$ (Not Clear)

The two shaded cells represent situations where racial profiling may *increase* total social costs. In the case where minority motorists have lower elasticities of offending to policing and higher natural offending rates, and similarly where minority motorists have higher elasticities but lower natural offending rates, racial profiling may increase overall social costs depending on the relationship between the relative offending and search rates. Note that this result does not even take into account the ratchet effect discussed in Part II.B.[61]

The foregoing underscores the myopia of an efficiency analysis that looks solely for equal hit rates and elides elasticities and offending differentials. As the model makes clear, minimizing the costs to society will entail a distribution of searches between white and minority motorists that will depend on the relative elasticities of offending to policing and on the relative natural offending rates. In other words, *the equilibrium point is not defined by the equality of hit rates, but instead depends on comparative elasticities and the relationship between offending and search rates*. As a result, the focus of the analysis should turn on the size and characteristics of the group of persons at the margins who are most likely to be influenced one way or the other to carry illicit drugs on the highway for personal or commercial purposes. In this sense, the analysis will call not only for modeling skills and better data on overall elasticities and offending rates, but also for sociological and ethnographic studies of the groups of individuals who are most likely to respond to shifts in the allocation of policing resources.

The economic modelers may respond that they are merely trying to distinguish between the racist and the success-maximizing line police officer. And, to be sure, some police officers may measure success by the narrow metric of successful searches. This response, though, does not square with basic assumptions of rationality or police behavior. The broader notion of efficacy—associated with the long-term effects on the profiled crime—makes far more sense from the perspective of police officers and police departments. The bottom line for policing is crime rates, not hit rates. In fact, if the police focus exclusively on narrow efficiency, the economic models are irrelevant to the contemporary criminological and policing debates. A finding that the police conduct themselves in a narrowly efficient manner may point to a principal-agent problem in policing. But it does not resolve the key question of racial profiling, namely whether it is racist. If targeting mi-

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[61] By way of illustration, in Maryland if minority motorist elasticity is lower, then social costs are minimized only if the search rate of minority motorists is less than .34/.32 or 1.0625 times the search rate of white motorists. Given that approximately 63 percent of searches are of minority motorists, this condition likely does not obtain. See note 24 and accompanying text.

nority motorists *increases* long-term offending on the highways or the overall costs to society, then it is *in effect* racially prejudiced. It may be inadvertent and mistaken, but it is effectively racist because it uses a racial category without any benefit to society.

3.   The problem of selectivity.

Even setting this aside and adopting the narrow—and incorrect—definition of efficiency, there is a second problem with the economic models of racial profiling: the models do not properly address issues surrounding the selectiveness with which the police use race and other search criteria for purposes of searching and sub-searching members of different racial groups. As a result, the models place too much faith in their interpretation of hit rates—or, to say this slightly differently, the official hit rates do not necessarily mean what the economists claim.

There is good reason to believe that a police officer who is racist is going to use race differently in the decision to search a minority motorist than in the decision to search a white motorist. A racist police officer might decide, for instance, to search all available motorists when it comes to African-American motorists on the one hand, but only young drivers driving late-model cars with tinted windows and counterculture bumper stickers when it comes to white motorists. In other words, the racist police officer may use other search criteria more or less selectively depending on whether the motorist is white or minority. If the police are more or less selective when it comes to minority motorists, then the equal *official* hit rates would mask different *actual* offending and hit rates among minority drivers. If so, the fact that there are equal *official* hit rates would not signal narrowly efficient policing.

a) Selecting on race. The fact is that the police do not profile on race *alone*. They also profile on car models, vehicle attributes, rental cars, stickers, location, direction, motorist appearance, age, etc.[62] The police use these various attributes—as well as, possibly, race—to narrow down the pool of likely suspects.[63] We know that they are doing this successfully. The pool of motorists who are being searched are

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[62]   Knowles, Persico, and Todd list these characteristics from a training manual of the Illinois State Police: "tinted windows, cell phones, leased vehicles, religious paraphernalia used to divert suspicion, and attorney business cards." Knowles, Persico, and Todd, 109 J Polit Econ at 204 n 2 (cited in note 3).

[63]   See Stephan Michelson, *Driving While Black: A Skeptical Note*, 44 Jurimet J 161, 178 (2004) (stating that police use other factors, such as the condition of the car and whether the lights are operable, in determining which cars to stop).

carrying at high rates, far in excess of the population as a whole. In Maryland, for instance, about 34 percent of African-American and 32 percent of white motorists searched are carrying drugs.[64] That is far higher than rates of personal drug use among surveyed adults,[65] and far higher than success rates at nondiscretionary roadblocks (about 4.7 percent in Indianapolis in 1998[66]). It is also higher than success rates in Missouri (12.3 percent for African-Americans and 19.7 percent for white motorists).[67] By not stopping elderly motorists on their way to church or synagogue, the police can and are successfully narrowing down the pool of suspects. We see here that criminal profiling probably "works": it can increase the success rates of searches.

What we do not know, however, is whether and to what extent the police are engaging in racial discrimination in the treatment of race as a *selection criterion*, and to what extent, if any, that is helping to make the profiling work. We do not know whether the police use more factors to identify white suspects than African-American or Hispanic suspects. If the police are in fact searching any available minority motorist and being more selective for white motorists, then the *official* hit rates compare apples and oranges. They compare all minority motorists on the one hand and a class of high risk white motorists on the other. If this is true, then the *actual* offending rate for all African-American motorists is probably higher than for all white motorists, despite the equal official hit rates. The equal hit rates would be deceptive: they would not signal narrowly efficient policing, but would instead mask a form of racism—selectively differential use of other search criteria—that would escape detection. To make matters worse, we do not know the direction of bias that would necessarily result if the police were using more characteristics for white motorists than for minority motorists. It would depend entirely on how predictive the other characteristics are and how they offset each other. Some characteristics may actually retard the success rate. For instance, the fact that an automobile is swerving may be a very strong predictor of DUI, but

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[64]   Knowles, Persico, and Todd, 109 J Polit Econ at 222 (Table 2) (cited in note 3) (listing the proportion of vehicles searched found to be carrying drugs, broken down by race).

[65]   See Part IV.B.1(a).

[66]   See *City of Indianapolis v Edmond*, 531 US 32, 35 (2000) (noting that 55 drug-related arrests were made during a total of 1,161 stops). The Indianapolis roadblock in 1998 involved random stops without police discretion whether to stop or search. The selected car would be stopped, the driver would be asked to produce a license and registration, and a dog would sniff the outside of the car. A search was to be conducted upon consent or based on a specified amount of particularized suspicion.

[67]   See Hernández-Murillo and Knowles, *Racial Profiling or Racist Policing?* at 31 (Table 1) (cited in note 3).

a very poor predictor of—or perhaps inversely related to—being a large-haul drug courier.

More technically, the economic models focus exclusively on the overall hit rates by race.[68] That is, in part, their strength, because we lack reliable data on other selection criteria. But it also presents a problem: it makes the hit rates unreliable as a test for racism because it does not account for other characteristics when comparing hit rates.

The Knowles, Persico, and Todd model does include a variable for all the other characteristics that would lead the police to search a suspect. The variable "*c*" denotes all other traits that raise police suspicion, and "*r*" represents race.[69] Their model, however, does not hold *c* constant. To the contrary, their model integrates *c* out of the final equation.

They begin, correctly, by asserting that the nonracist, efficient police officer will be indifferent with regard to the race of the next motorist searched when, *for all c*, guilt probabilities are equal across all races. They express this in an equation reproduced below as equation (16).[70] For purposes of notation, *G* denotes that the search of the motorist comes up with drugs, *A* denotes minority motorists, *W* denotes white motorists, *t* denotes the marginal cost of searching a motorist, *P*(G|c, A)* denotes the equilibrium probability that a minority motorist (*A*) of type *c* is guilty (*G*), and *c*, as we know, denotes all other traits that raise police suspicion.

Their equation posits that, *for all c*, at the equilibrium, it must be the case that:

$$P^*(G|c,A) \;=\; t \;=\; P^*(G|c,W) \qquad\qquad (16)$$

In other words, at equilibrium—the point at which the nonracist police officer will be indifferent about race—the hit rate will be the same for minority and white motorists *holding c constant*, or, to put it slightly differently, *taking into account c and solving the equation for all c*. This is correct given that the nonracist police officer by definition does not have a different cost *t* for searching motorists of different races.[71]

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[68]   See Knowles, Persico, and Todd, 109 J Polit Econ at 205–06 (cited in note 3) (contending that a "key advantage" of their model is its ability to cope with limited data, for the "equality of the returns to searching can be tested without knowing all the characteristics observed by the police").

[69]   Id at 209.

[70]   Id at 211 (equation (4)).

[71]   Recall that racial prejudice is defined as a taste for discrimination reflected in the fact that the cost of searching a minority motorist (*tA*) is different from the cost of searching a white motorist (*tW*).

In the next step of their model, Knowles, Persico, and Todd integrate out *c*. Based on equation (16) above, they come up with the following test for racial prejudice—reproduced below as equation (17).[72] In this equation, *D* represents "data on the frequency of guilt by race conditional on being searched":[73]

$$D(W) \; = \; t \; = \; D(A) \tag{17}$$

The problem is that "the frequency of guilt by race conditional on being searched" is not different conceptually from the terms $P^*(G|c, A)$ or $P^*(G|c, W)$ from equation (16) above. The latter terms were defined as, at equilibrium, "the probability that a motorist of type *c*, [*A* or *W*] carries contraband."[74] In other words, the two equations are functionally equivalent. The only difference is that the *c* term was extracted from the second equation (17). The test for prejudice, then, is whether the frequency of guilt by race conditional on being searched is the same or different—whether the hit rates are the same or different—*regardless of c*. Knowles, Persico, and Todd have effectively eliminated any consideration of other characteristics *c* from their test.

But extracting c makes a difference. Hit rates may be the same ignoring *c* even though guilt probabilities may be different *if c is held constant*. This is possible where police officers are racist, use other search criteria less selectively for minority motorists, and are not entirely concerned about maximizing overall hit rates. In this sense, equation (16) is the right test for prejudice, but equation (17) is missing the key variable of other characteristics *c*. It could be, for instance, that if we hold constant the characteristic that the automobile is swerving—or any other characteristic, such as late-model car or bumper sticker—the hit rates that seemed equal diverge. And there is no necessary bias as to the direction of the difference. This problem of selectivity distorts the interpretation of the hit rates.[75]

The economic modelers might respond that the assumption of efficiency solves all the problems: if the police are actually being less selective with minority motorists and achieving the same hit rates, then

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[72]   Knowles, Persico, and Todd, 109 J Polit Econ at 212 (equation (5)) (cited in note 3).

[73]   Id.

[74]   Id at 210.

[75]   This problem is mirrored by the model's failure to hold *c* constant for purposes of the definition of statistical discrimination. Knowles, Persico, and Todd explain: "An alternative definition of statistical discrimination would require that . . . blacks are searched at different rates than whites *with the same observable characteristics c*. This definition is more stringent than [our] definition 2 . . . . For our purposes, it is more convenient to use [our] definition 2." Id.

they would have to know that minorities are actually offending at different rates than what is reflected in the parity of hit rates, and, if they are being perfectly efficient, they will seize the marginal difference by searching more or fewer minority motorists. This is Gary Becker's brilliant insight—to operationalize racism through the taste for discrimination—and it may work remarkably well as a way to capture unconscious racism. But this explanation may not work as well if we relax slightly the assumption of rationality and assume instead that the blatantly racist police officer operates on a more simple heuristic, something like: "I'll search any minority motorist that I stop for speeding, and search any white 'druggie' motorist that I stop for speeding. By white 'druggie' motorist, I mean young white male with a fancy car and drug stickers or other drug indicia." If this heuristic is how the racist police officer operates, then the economic models cannot distinguish between the racist and the narrowly efficient police officer on the basis of hit rates, because the hit rates do not have the meaning attributed to them by the economic models.

In essence, the economic modelers' response assumes away the most interesting question—namely, *how racism expresses itself*. It places efficiency as a leading objective for *all* police officers. Yet there is no good reason to assume that the blatantly racist police officer is *also* maximally efficient in her racism. Racism and narrow efficiency may be mutually exclusive. In fact, the police officer possibly could search more minority motorists and improve the overall hit rates— which is what the officer would do *if* she were perfectly efficient and knew that the other characteristics were accurate predictors across race. Yet the racist police officer may continue to select differentially on other search criteria out of racism. This is, possibly, the paradox of inefficient racism. Her racism may be masked *to us* by the equal hit rates, which mask *to her* the fact that she could search more minorities. In any event, this form of racism would distort the interpretation of hit rates.

b) Sub-search processes. The police may also be engaging in more careful and deliberate sub-searches of stopped motorists depending on their race[76]—and this too may skew the interpretation of hit rates. The police may, because of a reduced "cost of thoroughness," call canine units more often or engage in more intrusive visual inspection, closer scrutiny of documents, or more heavy-handed interrogation with disfavored categories of motorists. These sub-search tech-

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[76] See Gross and Barnes, 101 Mich L Rev at 682–84 (cited in note 2) (discussing differential sub-searches).

niques may also affect hit rates in a statistically invisible way. And they are not accounted for in the economic models of racial profiling. As Knowles, Persico, and Todd write:

> [O]ur model abstracts from the issue of the thoroughness of searches. Suppose that it were the case that police search African-American motorists more thoroughly than whites, because of a lower "cost of thoroughness." As a result, searches of African Americans would not necessarily be more successful, because of the equilibrium reaction of motorists. In fact, we may expect searches of African Americans to be less successful since in equilibrium police equate the (lower) cost of searching thoroughly to the expected benefit from searching. Testing a model that takes into account thoroughness requires data on effort spent searching. In the absence of such data, we leave this question for future research.[77]

The differential application of sub-search processes, however, may also distort the interpretation of hit rates.

It is important to note, in both these contexts, the difficulty of identifying what counts as "racist." From one perspective, using more selection criteria (not just race, but also out-of-state tags, fancy rims, etc.) and applying more sub-search techniques (canine sniffing, heavy-handed interrogation, closer visual inspections, etc.) to one set of motorists is *more* fair toward that set of motorists, because it decreases the number of innocent motorists in that group who are subjected to full-scale searches. If we are more careful in this manner with white motorists, fewer white motorists will be unnecessarily searched; minority motorists, as a whole, will be subjected to comparatively more futile searches. From another perspective, though, the sub-search techniques themselves are often intrusive, invasive, and, for innocent motorists, may well feel like full-blown searches. On this view, the sub-search techniques count as searches, and their disproportionate application appears racist against the beneficiary—against the group subject to the practices. Moreover, the use of additional selection criteria and sub-search techniques creates a perception that the beneficiary group is more crime prone.

An important normative question then is whether to label a police officer who stops all African-American motorists because of their race alone, but who stops only white motorists with out-of-town tags and late-model cars and subjects these white motorists to a canine

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[77]   Knowles, Persico, and Todd, 109 J Polit Econ at 215 (cited in note 3).

sniff, as racist against African-American motorists (because he is less careful and causing more unsuccessful searches of innocent minority motorists) or as racist against white motorists (because he is subjecting white motorists to intrusive canine searches and jacking up their collective hit rate, thus painting them as drug dealers). For purposes of clarity, in the ensuing discussion I will label such a police officer as "bigoted against minorities (or whites)."

The bottom line is that, when the hit rates are 34 percent for African-American motorists and 32 percent for white motorists along Maryland I-95, we do not know if the police have searched African-American motorists simply based on their race and white motorists because of five other suspicious traits. If that is the case, clearly, the African-American motorists actually have far higher average hit rates than the average white motorist. Alternatively, this might be offset by differential sub-search techniques, which would increase the hit rate. Lower or equal official hit rates would mask much higher real offending rates.

The only way to address this issue is to get the relevant data—offending or hit rates—holding c constant and holding constant sub-search processes. That would be difficult, but not impossible. It would require asking the police officer to report all grounds of suspicion and to report all sub-search processes administered. It would then be possible to hold c constant in the offending and hit rates. Political scientists at Washington State University—Mitchell Pickerill, Clayton Mosher, Michael Gaffney, and Nicholas Lovrich—are attempting to do this, but for slightly different purposes. Their research, which involves a more traditional multiple-regression approach, seeks to identify all factors that may contribute to searches in order to determine whether any of those factors neutralize the role of race.[78] In their re-

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[78] Their data consist of every stop made by a Washington State Patrol officer from March 2002 through October 2002, which amounts to 677,514 cases. Pickerill, et al, *Search and Seizure* at 17 (cited in note 27). Of those, 23,393 (or 3.5 percent) resulted in searches. Their findings are preliminary, but they also find that race plays an important role in the incidence of searches by the Washington State Police. "Even when we control for other factors that influence whether or not searches are conducted after motorists are contacted by the WSP, we find that race still has an impact on the likelihood of a search." Id at 26. Specifically, Native Americans are searched at much higher rates than whites, African-Americans and Hispanics are searched at moderately higher rates than whites, and Asians are searched at slightly lower rates than whites. Whereas 3 percent of white motorists who were stopped were searched, the search rates were 15 percent, 7.6 percent, 6.7 percent, and 2.5 percent respectively for Native Americans, African-Americans, Hispanics, and Asians. Id at 21. Although Pickerill, et al, do not develop an economic model of racial profiling focused on hit rates, they do nevertheless report the hit rates from the data. They find that, overall, white motorists are the most likely to be found with contraband. The disparities are greater with regard to discretionary searches—not surprisingly. Adding both types of searches, it turns out that the hit rates are 24.8 percent for whites, 18.9 percent for African-

search, they find that some of these other factors affect the racial disparities. The strongest predictor of a search is the seriousness of the violation associated with the stop. The influence of race is mitigated by other variables, including the age of the driver, geographical location, time of day, and the seriousness of the violation triggering the traffic stop. Most important, they find that the disparities in searches do not vary much between searches that are nondiscretionary (which they define as searches incident to arrest, "impound searches," and "warrant searches") and those that are discretionary (which they define as canine searches, consent searches, and pat-down searches).[79] Their primary purpose is to test whether the consistently disproportionate searches of minority motorists are an artifact of some other *nonracial* factor—in other words, whether the race correlations would vanish if some other variable were held constant.[80] Nevertheless, it would eventually be possible to use their data to examine hit rates holding c constant.

In the final analysis, the economic models of racial profiling are inadequate. The models, in essence, maximize the wrong thing: instead of maximizing hit rates, the models should maximize the crime-fighting punch of the searches. The models incorrectly assume that it is efficient and nonracist for the police to maximize the success rate of searches. Moreover, even assuming the models' soundness, they fail to account for differential selection criteria or sub-search techniques that distort the data the models purport to interpret.

Americans, 21.4 percent for Native Americans, 16.7 for Hispanics, and 12.2 percent for Asians. Id at 34 (Table 4).

  [79]   Id at 18. Pickerill, et al, infer from this that "this is one indicator that while there may be racial disparities in search rates, those disparities do not appear to be the result of intentional discrimination by the officers." Id.

  [80]   As they explain:

> While virtually every extant study of such data indicates that racial profiling *may* be occurring, it is important to stress that these studies do not provide *proof* that biased policing exists. Without appropriate "denominator" data keyed to specific racial and ethnic populations, and without the addition of appropriate contextual information concerning traffic stops to multivariate analyses, it is not possible to distinguish biased policing from entirely appropriate, but demographically disproportionate, enforcement outcomes with respect to racial and ethnic characteristics.

Id at 11. See also Michelson, 44 Jurimet J at 166–70 (cited in note 63) (suggesting that the existing studies do not prove discriminatory impact because they fail to account for the proportions of drivers excessively speeding and do not measure the extent to which police officers can discern motorists' race). But see *Soto*, 734 A2d at 354–57 (recounting plaintiffs' experts addressing these and other concerns).

II. The Civil Liberties Literature

Civil liberties advocates and legal scholars are also scrutinizing the same new data. For the most part, these scholars point to evidence of similar drug consumption across racial groups and assert that the equal or lower hit rates reflect nothing more than equal or lower offending rates. They conclude from this that the disproportionate searches of minority motorists are racially discriminatory and do not reflect policing efficiency. In effect, these scholars refer to the same empirical evidence, rely on the same key statistic (hit rates), assume similar offending and no elasticity, and claim racial discrimination. As it should be clear from Part I, however, the focus on hit rates is misplaced. Let's start, though, by exploring the specific contributions.

A. The Civil Liberties Model of Racial Profiling

1. Harris (2002).

In *Profiles in Injustice: Why Racial Profiling Cannot Work*, David Harris reviews extensively the data on police searches and argues against racial profiling on several grounds. His primary argument, though, is that it simply does not work because the hit rate for minority motorists is equal to or less than that for white motorists.[81] Harris argues that the new data "offer an irrefutable statistical argument against the practice."[82] Harris writes:

> Despite the widespread belief that racial profiling, reprehensible though it may be, is an effective and efficient way of catching criminals—a "rational" approach to law enforcement—newly collected information about "hit rates" gives the lie to this assumption: the numbers just don't add up. Data emerging from studies done over the last few years demonstrate conclusively that hit rates—the rates at which police actually find contraband on people they stop—run contrary to long-held "commonsense" beliefs about the effectiveness of racial profiling. The rate at which officers uncover contraband in stops and searches is *not* higher for

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[81] Harris, *Profiles in Injustice* at 13 (cited in note 8). Harris correctly points out that racial profiling is a form of criminal profiling, that its supporters believe that it is an efficient and rational law enforcement technique because of offending differentials, and that it flourishes where the police use high-discretion methods. "If racial profiling is what directs police suspicion at minorities, it is high-discretion police tactics that put these suspicions into action, turning profiles into police investigations," Harris explains. Id at 11. "These high-discretion methods allow police to detain, question, and search people who have exhibited no concrete evidence of wrongdoing." Id at 11–12.

[82] Id at 13.

blacks than for whites, as most people believe. Contrary to what the "rational" law enforcement justification for racial profiling would predict, *the hit rate for drugs and weapons in police searches of African Americans is the same as or lower than the rate for whites*. Comparing Latinos and whites yields even more surprising results. Police catch criminals among Latinos at *far lower rates* than among whites. These results hold true in studies done in New York, Maryland, New Jersey, and other places.[83]

Harris also emphasizes that the benefits in terms of drug interdiction are negligible. He points to the fact that, "while it is true that automobile stops sometimes result in large seizures of drugs, . . . [t]he quantities discovered seldom exceed enough for personal use and often amount to even less—so-called trace amounts that can be detected but not used."[84] From this, Harris concludes that racial profiling "simply does not work as a law enforcement tactic."[85] It does not help identify likely drug suspects and it does not result in significant drug interdiction.[86]

Sympathetic critics of David Harris have pointed out that his argument misses a step. As Samuel Gross and Katherine Barnes write, "hit rates alone are insufficient to distinguish discrimination from evenhanded treatment of groups with different behavior patterns."[87] In all fairness to Harris, though, Harris does infer from the data that the basic assumption of higher minority offending is mistaken. He writes, for instance:

> All of this exposes the rational law enforcement argument as, at best, the product of *a set of mistaken assumptions*. If blacks and Latinos who are stopped as a result of racial profiling *are no more likely or are even less likely to be in possession of drugs or other contraband than whites*, it simply doesn't make sense to enforce the law in this way."[88]

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[83]   Id. See also id at 79–84 (discussing hit rates for highway and street searches); David A. Harris, *The Reality of Racial Disparity in Criminal Justice: The Significance of Data Collection*, 66 L & Contemp Probs 71, 81–82 (Summer 2003).

[84]   Harris, *Profiles in Injustice* at 13–14 (cited in note 8). See also id at 84–87 (discussing the incorrect perception of successful interdiction efforts and the infrequency of large drug seizures).

[85]   Id at 14.

[86]   Id.

[87]   Gross and Barnes, 101 Mich L Rev at 690 (cited in note 2). See also Alschuler, 2002 U Chi Legal F at 215 n 216 (cited in note 2) (concluding that Harris's "data say nothing at all about the empirical success or failure of racial profiling").

[88]   Harris, *Profiles in Injustice* at 14 (emphasis added).

It should be clear from the notion of a *mistaken* assumption that Harris is in effect inferring from the evidence that minority motorists *do* have equal or lower offending rates. In this respect, Harris's argument is not very different than the position advocated by Gross and Barnes, which I discuss in detail below.[89] Harris's argument, in sum, is that racial profiling fails as a law enforcement tactic for lack of an offending differential.

2. Rudovsky (2001).

David Rudovsky, in *Law Enforcement by Stereotypes and Serendipity: Racial Profiling and Stops and Searches without Cause*, argues against racial profiling on three grounds. First, he reviews evidence regarding the relative offending rates in the context of both use and sale of illicit drugs, and concludes that no evidence supports the claim of differential offending.[90] Second, he challenges the elasticity assumption: "[A]s a statistical matter, the [economic models] assume[] that the extremely small number of searches (compared to the motoring population and to the number of motorists actually stopped) was sufficient to deter African-American drivers from transporting drugs (there are no data to show the rate of transportation pre–racial profiling)."[91] Third, anticipating later more sustained critiques, Rudovsky challenges the validity of the underlying data: "The study also assumes that the police are accurately reporting searches where nothing is recovered even though there is evidence to suggest the contrary."[92]

Rudovsky challenges, in effect, the key assumptions of the economic models—the assumptions regarding offending and elasticity and the reliability of the data. The reliability of the data is, of course, central to drawing any inferences; and the assumptions of offending and elasticity are central to the economic models. Without them, the models simply cannot distinguish between efficiency and prejudice based on hit rates.

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[89] Gross and Barnes conclude that, based on available drug usage survey data, the offending rates are probably similar and therefore that the search differentials do reflect racial animus. See Gross and Barnes, 101 Mich L Rev at 690–95 (cited in note 2). Similarly, Alschuler notes that "[l]ittle evidence suggests that blacks and Latinos commit drug crimes at higher rates than whites, and whether racial profiling has even a rational basis is disputed." Alschuler, 2002 U Chi Legal F at 215 (cited in note 2).

[90] Rudovsky, 3 U Pa J Const L at 317 (cited in note 8) ("The substantial racial disparities that have been documented in stop, frisk, and search practices cannot be fully explained or rationalized by crime patterns, police deployment, or policing tactics.").

[91] Id at 312.

[92] Id.

3. Gross and Barnes (2002).

In their article, *Road Work: Racial Profiling and Drug Interdiction on the Highway*, Samuel Gross and Katherine Barnes reexamine the data from Maryland previously analyzed by Knowles, Persico, and Todd. The differences in their conclusions are stark.

Gross and Barnes's data cover stops and searches conducted by the Maryland State Police on Interstate Highway 95 from 1995 through mid-2000—a total of 8,027 searches, broken down by location, direction of travel, types of searches, quantities and types of drugs discovered, among other variables (though the data omit the number of persons stopped but not searched).[93] Approximately 40 percent of motorists searched by the Maryland State Police were African-American and 4.4 percent were Hispanic.[94] On the specific corridor of I-95 that has been singled out in the racial profiling litigation, 60 percent of the persons searched were African-American and 6 percent were Hispanic.[95] By contrast, African-American motorists represent about 17 percent of drivers and 17.5 percent of traffic violators.[96]

With regard to a narrower corridor of I-95 from the Baltimore city limit to the Delaware border, more specific data cover stops and searches between May 1997 and April 2000. African-Americans represented 27.8 percent of the motorists stopped and 51.3 percent of the motorists searched. Hispanics represented 1.3 percent of the motorists stopped and 6 percent of the motorists searched.[97] In effect, African-American drivers "were almost twice as likely to be stopped as white drivers; and more than five times as likely to be searched."[98]

The hit rates were as follows: across the entire state, 37.4, 30.6, and 11.9 percent respectively for whites, African-Americans, and Hispanics; on the I-95 corridor, 40.3, 37.8, and 15.8 percent respectively for whites, African-Americans, and Hispanics.[99] Gross and Barnes break down the data by drug, location, type of search (consent search versus probable cause, with ground given for request, such as Grateful Dead stickers or nervousness). They find, for example, that "[c]ocaine and crack were found most often in cars with black drivers; heroin and 'other' drugs in cars driven by whites."[100]

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[93] Gross and Barnes, 101 Mich L Rev at 664 (cited in note 2).
[94] Id at 663 (Table 1).
[95] Id.
[96] Id at 664 (Table 2).
[97] Id at 665 (Table 3).
[98] Id at 666.
[99] Id at 668 (Table 6).
[100] Id at 669.

Gross and Barnes begin by casting doubt on the validity and reliability of the data. They argue that because the data were collected by the state police under court order, the data are therefore likely to be tainted and misleading.[101] They write:

> The Maryland State Police did not volunteer to keep these records; that requirement was forced upon them. They knew that the information they collected would be used to judge and to criticize them, and they had every incentive to improve the picture. In other states, officers in similar circumstances have been caught falsifying information. We don't know if that happened in Maryland, but even if it did, that sort of fabrication is not the main problem. The easy, safe way to bias records is simply to skip some cases altogether. . . . There is substantial evidence that this has happened with the MSP data set, but we do not know to what extent.[102]

Despite concerns about the data, Gross and Barnes reach two conclusions. The first is that the Maryland State Police do engage in racial profiling: the disparities in stops and searches are unlikely to be the product of randomness.[103] They speculate that the police's motivation to engage in this type of racial profiling is that they are trying to intercept large quantities of drugs. "[R]acial profiling," they suggest, "seems to increase the probability of finding large hauls of drugs," because "[a]mong black and Hispanic drivers . . . , a larger minority of the searches uncovered substantial quantities of illegal drugs."[104]

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[101] Id at 659 (noting that the "data are not only limited but probably distorted as well").

[102] Id. The evidence of underreporting consists primarily of documents produced in discovery in the litigation against the Maryland State Police, showing that a regional commander ordered his officers to file reports on dozens of searches where the paperwork was missing but contraband had been found, as well as evidence of minority motorists who had been searched but who did not appear in the Maryland State Police database. See id at 680. There is similar anecdotal evidence from other jurisdictions. See id at 678–82 (discussing a variety of misreporting tactics allegedly employed by New Jersey and Illinois state troopers).

[103] Id at 660.

[104] Id. See also id at 703. Another explanation that has been offered is that the police are interested in seizing drug moneys through asset forfeitures:

> Collectively, local police departments received $490 million worth of cash, goods, and property from drug asset forfeiture programs during fiscal 1997. Sheriffs' departments had total receipts of $158 million.
>
> . . .
>
> The possibility of rich pickings through asset forfeiture, combined with the higher propensity for black motorists to carry drugs, provides police departments with a tremendous incentive to engage in racial profiling. It is hardly surprising, then, that police take the bait, even at the cost of racial bias accusations and investigations.

Callahan and Anderson, *The Roots of Racial Profiling*, Reason at 42–43 (cited in note 55).

Their second conclusion is that the disproportionate searches reflect racial prejudice, not mere statistical discrimination.[105] Gross and Barnes reach this conclusion because drug use survey data provide every reason to believe that blacks and whites offend at the same rate:

> According to the 1999 National Household Survey on Drug Abuse, 6.6% of white Americans 12 years of age or older report that they have used an illicit drug in the previous month, compared to 7.7% of blacks and 6.8% of Hispanics. There are no comparable data on drug dealers, but customers swamp sellers in any consumer market, including the market for illegal drugs.[106]

While this says nothing about dealing, trafficking, and distribution, it is relevant because, as they point out, "the great majority of the drug offenders arrested by the MSP were users rather than dealers."[107] "Statewide, 84% of those found with drugs were carrying only trace or personal-use amounts, and 68% were found with trace or personal-use quantities of marijuana only."[108]

Gross and Barnes thus reason that the hit-rate maximization model cannot explain racial profiling because it wrongly assumes "that blacks possess drugs on the highway far more often than whites, which is hard to square with what we know about drug use by race."[109] Gross and Barnes do not, however, address the question of elasticities. They suggest that the assumption of elasticity is "debatable,"[110] but do not discuss how the assumption of elasticity would affect their argument, what evidence there is for elasticity, or whether they need to contest the assumption for purposes of their argument. Gross and Barnes also argue that the hit-rate maximization model is simply implausible:

> *Why* would the MSP want to maximize the number of drug busts, however small, rather than the number of dealers they arrest or the quantities of drugs they seize? And if they did want that, why wouldn't they shift more heavily from consent searches (with a 22% hit rate) to probable-cause searches (with a 53% hit rate)?[111]

So how did the Maryland State Police get to similar hit rates even though they were pulling over so many more minority motorists? Ac-

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[105] Gross and Barnes, 101 Mich L Rev at 687 (cited in note 2).
[106] Id at 691 (internal citation omitted).
[107] Id.
[108] Id at 697.
[109] Id at 692.
[110] Id at 692 n 143 (stating that Knowles, Persico, and Todd's assumption that "motorists who might carry drugs are deterred by the race-specific probability of being searched" is "debatable").
[111] Id at 692.

cording to Gross and Barnes, by using more sub-search techniques. Having a dog sniff the outside of a car does not qualify as a search. Asking for consent and detaining someone while a canine unit arrives also does not qualify as a search.[112] Other techniques include interrogation and comparisons to drug-courier profiles.[113] These are the type of sub-searches that can be administered in a racially discriminatory manner and yet may soften the impact of the purported race differences in searches.[114]

Ultimately, what accounts for the racial profiling, Gross and Barnes speculate, is that blacks were more likely to be in possession of large hauls of drugs.[115] In addition, the authors find that the police discriminate against Hispanics by all accounts. Hispanics had much lower hit rates, reflecting a taste for discrimination.[116]

In sum, Gross and Barnes focus our attention on the fact that so many of the successful searches merely reveal personal or trace amounts of drugs. By combining this observation with the evidence that drug use is relatively similar across races, Gross and Barnes raise serious questions about racial profiling on the highway. These are, in effect, the central arguments that have made racial profiling on the highway such an "easy case," as Gross suggests in other writings with Debra Livingston.[117] This "easy case" argument emphasizes the high costs[118] and the questionable benefits of racial profiling.

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[112] Id at 683–84.

[113] Id at 685.

[114] Id at 694 (explaining that the disparate use of sub-search techniques allows police to limit searches to cars comparatively likely to contain contraband, thus boosting the hit rate).

[115] Id at 703 (noting that "84% of the big dealers arrested on I-95 north of Baltimore were black").

[116] Id at 693.

[117] Gross and Livingston, 102 Colum L Rev at 1431 (cited in note 8) ("The probability of guilt for any individual who is stopped is low; few are carrying any drugs at all, and only a tiny proportion are drug traffickers.").

[118] These include, first and foremost, the costs imposed on innocent African-American motorists. Alschuler, among others, places this cost—"the extent to which a racial classification burdens the innocent members of one race more than the innocent members of another"—at the top of his list. Alschuler, 2002 U Chi Legal F at 264 (cited in note 2). See also Harris, *Profiles in Injustice* at 94 (cited in note 8) (observing that racial profiling has a "profound impact on innocent people"). Another cost is the harm to the relationship between the African-American community and the police. As Harris writes,

> profiling, which treats all citizens of particular racial and ethnic groups as potential criminals, can do nothing but alienate these same citizens from their police. It breaks down the trust that must be at the heart of any true partnership, and it threatens to defeat community policing's best efforts to fight crime and disorder.

Id at 12. Another cost involves the reputational harm to the profiled group—what Alschuler refers to as "the social meaning of the racial classification employed by the police." Alschuler, 2002 U Chi Legal F at 265. And, of course, there is the cost to society as a whole—to the legitimacy of the criminal justice system and the legal system more generally. Harris, *Profiles in Injustice* at 117.

B. A Critique of the Civil Liberties Literature

While making important contributions, civil liberties scholars nevertheless make several critical errors. First, they take at face value the narrow definition of efficiency proposed by the economists and fail to challenge how that definition of efficiency relates to the larger goal of fighting crime. Second, while Gross and Barnes are sensitive to sub-search processes, they seem to ignore the larger issue of the selective use of other search criteria in the decision to search. Third, they fail to focus on the possible ratchet effect that would disqualify racial profiling as a narrowly tailored policing strategy.

As a result, and somewhat ironically, civil liberties advocates embrace too willingly the *logic* of the economic models of racial profiling. To be sure, they reject the two key assumptions—higher offending of minority motorists and elasticity of offending to policing—but they endorse the theory. And more importantly—and most problematically—they maintain the focus on hit rates. The lower hit rates for Hispanic motorists, they argue, *proves* that there is racial discrimination against Hispanics. The equal hit rates for African-American motorists, they argue, *corroborates* the fact that drug consumption is equal among races and therefore *establishes* racial discrimination.[119] The civil libertarians have, in effect, bought into the economic models of crime but have flipped the assumptions.

1. The difficulty of interpreting hit rates.

The problem is, of course, that hit rates are simply the wrong statistic. But even putting that aside, hit rates are far more difficult to interpret than these authors suggest given that we know little about the selectiveness with which other search criteria are used or, for that matter, about elasticities and offending rates. The new data from across the country do not contain *any* evidence concerning these key quantities of interest, without which it is practically impossible to interpret the hit rates reliably. So even if we were interested only in narrow efficiency, the fact of lower, equal, or higher hit rates tells us very little. In each case, there are multiple possible interpretations.

Three two-by-three matrices help elucidate the different possible interpretations of hit rates from the emerging data. All of the matrices assume disproportionate searches of minority motorists.[120] Each matrix addresses a different relationship between hit rates—equal, lower, or

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[119] See, for example, Gross and Barnes, 101 Mich L Rev at 693 (cited in note 2).

[120] As a result, the three matrices lack symmetry. Symmetry would require creating the three matrices for disproportionate searches of white motorists.

higher for minority motorists—given different basic assumptions about elasticity and offending. The six different assumptions (elastic/inelastic and lower/equal/higher offending) can be visualized in the following graphs:

GRAPH 3

(a) Minority Higher Offending and Elastic
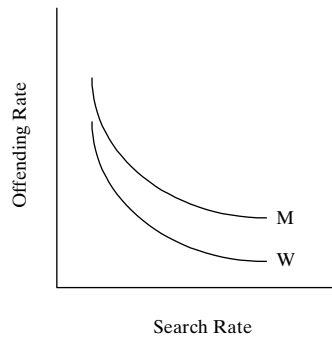
(b) Minority Higher Offending and Inelastic
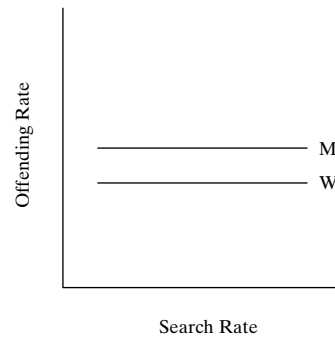
(c) Same Offending and Elastic

(d) Same Offending and Inelastic

(e) White Higher Offending and Elastic

(f) White Higher Offending and Inelastic

The following three matrices set forth the simplest and most likely explanation for the given hit rates, and then infer whether the interpretation is consistent with racism or narrow efficiency.[121] The first matrix involves disproportionate searches of minority motorists whose hit rates *equal* those of white motorists. There are six possible scenarios:
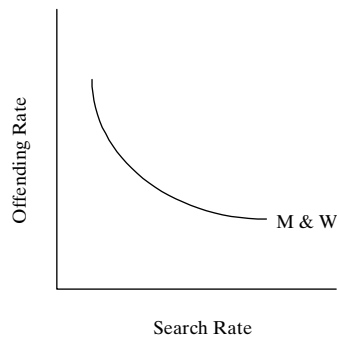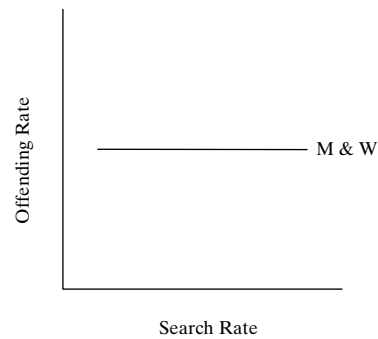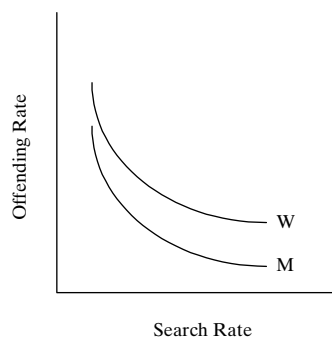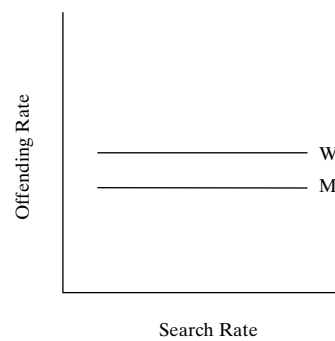
TABLE 4
Equal Hit Rates

	If offending is elastic to policing . . .	**If offending is inelastic to policing . . .**
. . . and minority motorists have higher natural offending rates than white motorists . . .	. . . the minority real offending rate may have decreased because of the disproportionate searches, which is reflected in the similar hit rates. Here (Graph 3(a)) it is narrowly efficient to police minorities at higher rates, because it reduces their offending and creates an equilibrium. There is no racial bigotry.	. . . the police perhaps are being more discriminate in their searches of whites (applying more successful profiling factors and sub-search techniques), increasing the overall white hit rates. Here (Graph 3(b)) the police are acting in a bigoted manner against minorities, because of the more careful searches of whites, and against whites from a narrow efficiency perspective, because they should not be searched at all since minorities have constant higher offending rates.

[121] Given that all of the matrices assume disproportionate searches of minority motorists, it is possible to argue in each cell that the disproportionality reflects racial prejudice simply because it considers race in the administration of criminal justice to the detriment of minority motorists. Some commentators argue that *any* recourse to race in these circumstances—regardless of relative offending or elasticities—is morally and politically offensive. This is an argument for color-blind policing practice. Randall Kennedy, for instance, argues against racial profiling on the grounds that race should not be taken into consideration in discretionary preventative policing. See Randall Kennedy, *Suspect Policy*, New Republic 30 (Sept 13, 1999). Kennedy assumes arguendo that African-Americans have higher natural offending rates, and that racial profiling is not only efficient policing but reduces the amount of crime. Despite this, Kennedy opposes racial profiling: "[I]ndividuals should be judged by public authority on the basis of their own conduct and not on the basis—not even *partly* on the basis—of racial generalization. Race-dependent policing retards the development and spread of such thinking; indeed, it encourages the opposite tendency." Id at 34. See also Harris, *Profiles in Injustice* at 12 (cited in note 8) ("It is clearly unconscionable to treat an individual as a criminal suspect simply because a small number of individuals from the same racial or ethnic group are criminals."). This argument is purely deontological. I distinguish it from the more specific argument that condemns disproportionately searching minority motorists where they are not offending at higher rates—where there is no efficiency argument. This specific argument I will include in the matrices. Because the more absolutist argument applies to every cell, however, I will put a place holder here and omit it from the matrices.

. . . and minority motorists have the same natural offending rates as white motorists . . .	. . . either the police are being more discriminate in their searches of minorities (applying more successful profiling factors or sub-search techniques), resulting in more successful minority searches, or less discriminate in their searches of whites, resulting in lower success rates for whites, or both. Here (Graph 3(c)) the police are acting in a bigoted manner against whites (or minorities) by not being as careful in the search selection process; but at the same time, the police are acting in a bigoted way against minorities because, given the equal offending rates, there is no narrow efficiency reason to search minorities disproportionately.	. . . the equal hit rates may reflect equal real offending rates. Here (Graph 3(d)) there is no narrow efficiency reason to search minorities disproportionately, and therefore the police are acting in a bigoted manner against minorities when they stop them disproportionately.
. . . and minority motorists have lower natural offending rates than white motorists . . .	. . . either the police are being more discriminate in their searches of minorities (applying more successful profiling factors or sub-search techniques), resulting in more successful minority searches, or less discriminate in their searches of whites, resulting in lower success rates for whites, or both. Here (Graph 3(e)) the police are acting in a bigoted manner against whites (or minorities); but at the same time, the police are acting in a bigoted way against minorities because, given the lower offending rates, there is no efficiency reason to search minorities disproportionately.	. . . either the police are being more discriminate in their searches of minorities (applying more successful profiling factors or sub-search techniques), resulting in more successful minority searches, or less discriminate in their searches of whites, resulting in lower success rates for whites, or both. Here (Graph 3(f)) the police are acting in a bigoted manner against whites (or minorities); but at the same time, the police are acting in a bigoted way against minorities because, given the lower offending rates, there is no efficiency reason to search minorities disproportionately.

The second matrix corresponds to disproportionate searches of minority motorists whose hit rates are *lower* than those of white motorists. Again there are six possible interpretations:

TABLE 5
Lower Hit Rates among Minorities

	If offending is elastic to policing . . .	**If offending is inelastic to policing . . .**
. . . and minority motorists have higher natural offending rates than white motorists . . .	. . . minority real offending may have decreased too much because of the disproportionate searches, which is reflected in the lower hit rates. Here (Graph 3(a)) the police have exceeded the equilibrium and are now engaging in bigotry against minorities.	. . . the police perhaps are being much more discriminate in their searches of whites, resulting in more successful searches of whites. Here (Graph 3(b)) the police are demonstrating bigotry against minorities (or whites) because of the more careful searches of whites, combined with bigotry against whites from a narrow efficiency perspective because they should not be searched at all, since the minorities have constant higher offending rates.
. . . and minority motorists have the same natural offending rates as white motorists . . .	. . . the lower hit rates for minorities may reflect the reduced real offending rates of minorities caused by the elasticity. Here (Graph 3(c)) there is no narrow efficiency reason to police minorities disproportionately, and therefore the police are exhibiting bigotry against minorities.	. . . either the police are being more discriminate in their searches of whites or less discriminate in their searches of minorities, or both. Here (Graph 3(d)) there is no narrow efficiency reason to search more minorities, and the police are also demonstrating bigotry against minorities (or whites).
. . . and minority motorists have lower natural offending rates than white motorists . . .	. . . the lower minority hit rate may reflect the lower minority offending rate and the reduced real offending from elasticity. Here (Graph 3(e)) there is no narrow efficiency reason to police minorities disproportionately, and therefore the police are exhibiting bigotry against minorities.	. . . the lower minority hit rate may reflect the lower minority offending rate. Here (Graph 3(f)) there is no narrow efficiency reason to search minorities disproportionately, and therefore the police are exhibiting bigotry against minorities.

Finally, the third matrix corresponds to disproportionate searches of minority motorists whose hit rates are *higher* than those of white motorists. Again there are six different possible scenarios:

TABLE 6
Higher Hit Rates among Minorities

	If offending is elastic to policing . . .	If offending is inelastic to policing . . .
. . . and minority motorists have higher natural offending rates than white motorists . . .	. . . minority real offending rates perhaps have not fallen enough to reach the equilibrium and so the police could efficiently search more minorities. Here (Graph 3(a)), while it is efficient to search more minorities, the disproportionality is insufficient to reduce minority offending to the same level as white offending, which is bigoted against whites.	. . . the higher minority hit rates may reflect the higher offending among minorities. Here (Graph 3(b)) it is narrowly efficient to search only minorities because they are offending at constant higher rates. In fact, it is bigoted against whites from a narrow efficiency perspective not to search *only* minorities.
. . . and minority motorists have the same natural offending rates as white motorists . . .	. . . either the police are being much more discriminate in their searches of minorities, or much less discriminate in their searches of whites, or both. Here (Graph 3(c)) the police are acting in a bigoted manner against whites (or minorities); but at the same time, the police are acting in a bigoted way against minorities because, given the equal offending rates, there is no efficiency reason to search minorities disproportionately.	. . . either the police are being more careful in their searches of minorities, or less careful in their searches of whites, or both. Here (Graph 3(d)) there is no efficiency reason for the disproportionate searches, so the police are acting in a bigoted manner against minorities; but at the same time, the police are also bigoted against whites (or minorities) in the selection and sub-searching process.
. . . and minority motorists have lower natural offending rates than white motorists . . .	. . . either the police are being much more discriminate in their searches of minorities, or much less discriminate in their searches of whites, or both. Here (Graph 3(e)) the police are acting in a bigoted manner against whites (or minorities); but at the same time, the police are acting in a bigoted way against minorities because, given the lower offending rates of minorities, there is no efficiency reason to search minorities disproportionately.	. . . either the police are being much more discriminate in their searches of minorities, or much less discriminate in their searches of whites, or both. Here (Graph 3(f)) the police are acting in a bigoted manner against whites (or minorities) by being so much less careful about which whites they search; but at the same time, the police are acting in a bigoted way against minorities because, given the lower offending rates, there is no efficiency reason to search minorities disproportionately.

Clearly, we need to know more about selectivity, elasticity, and offending before we can use the new data to test whether the police are being narrowly efficient or racist. No solid interpretive rules can be inferred from these matrices, as a summary demonstrates:

SUMMARY OF TABLE 4
Equal Hit Rates

	Elastic	**Inelastic**
Higher minority offending	Narrowly efficient	Bigoted against minorities (or whites) *and* against whites
Same offending	Bigoted against whites (or minorities) *and* against minorities	Bigoted against minorities
Lower minority offending	Bigoted against whites (or minorities) *and* against minorities	Bigoted against whites (or minorities) *and* against minorities

SUMMARY OF TABLE 5
Lower Minority Hit Rates

	Elastic	**Inelastic**
Higher minority offending	Bigoted against minorities	Bigoted against minorities (or whites) *and* against whites
Same offending	Bigoted against minorities	Bigoted against minorities (or whites)
Lower minority offending	Bigoted against minorities	Bigoted against minorities

SUMMARY OF TABLE 6
Higher Minority Hit Rates

	Elastic	**Inelastic**
Higher offending	Bigoted against whites	Bigoted against whites
Same offending	Bigoted against whites (or minorities) *and* against minorities	Bigoted against minorities *and* against whites (or minorities)
Lower minority offending	Bigoted against whites (or minorities) *and* against minorities	Bigoted against whites (or minorities) *and* against minorities

Given that the data include no information about offending or elasticity, and given the uncertainty regarding how the police are comparatively treating race and other search criteria as a factor in selection and in sub-search processes, it is extremely difficult to interpret the data on hit rates. Equal hit rates could mean narrow efficiency, but they could also signal racial discrimination.

2.   The ratchet effect.

The civil liberties scholars also fail to focus on the likely ratchet effect associated with racial profiling. A ratchet effect occurs when profiling produces a supervised population that is disproportionate to the distribution of offending by racial group. To give an example: if minority motorists represent 20 percent of motorists on the road, but 30 percent of the offenders (persons carrying drug contraband on the highway), then minority motorists are offending at a higher proportion than their representation in the general motorist population. If the police achieve equal hit rates by deploying 60 percent of their searches on minority motorists, then minority motorists will represent 60 percent of the population with negative police contacts resulting, in all likelihood, in some form of correctional relationship, whether a ticket, fine, arrest, probation revocation, supervision, or incarceration. The difference between minority motorists representing 30 percent of the offenders and 60 percent of the correctional population represents a ratchet that has significant negative effects on the minority population.[122]

The ratchet effect disproportionately distributes criminal records and criminal justice contacts, with numerous secondary implications. Disproportionate criminal supervision and incarceration reduces work opportunities, breaks down families and communities, and disrupts education. It contributes to the exaggerated general perception in the public imagination and among police officers of "black criminality" that, as Dorothy Roberts suggests, has significant collateral consequences for African-American communities.[123] This, in turn, further undermines the ability of African-Americans to obtain employment or pursue educational opportunities. It has a delegitimizing effect on

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[122]   This discussion of the ratchet effect does not even take into account the potential additional harm of increased false convictions. For a fruitful discussion of the possible increased danger of convicting the innocent minority motorist, see Nicholas L. Georgakopoulos, *Self-Fulfilling Impressions of Criminality: Unintentional Race Profiling* 5–16 (unpublished paper 2003), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=462900 (visited July 27, 2004).

[123]   See generally Dorothy E. Roberts, *Foreword: Race, Vagueness, and the Social Meaning of Order-Maintenance Policing*, 89 J Crim L & Criminol 775, 801–18 (1999).

the criminal justice system that may encourage disaffected youths to commit crime. It may also corrode community-police relations, hampering law enforcement efforts as minority community members become less willing to report crime, to testify, and to convict. And, to make matters worse, a feedback mechanism aggravates these tendencies. Given the paucity of reliable information on natural offending rates, the police may rely on their own prior arrest and supervision statistics in deciding how to allocate resources.[124] This, in turn, accelerates the imbalance in the prison population and the growing correlation between race and criminality.

Whether a ratchet effect will manifest turns on subtle variations in elasticity and offending. To grasp these effects, it makes sense to begin by graphing a basic model of racial profiling. Let us assume, first, that the elasticity of offending to policing is measured in terms of the distribution of total searches conducted by race. So on the x-axis, instead of having the internal group search rate (the rate of searches within each racial group), the graph plots the total distribution of searches as between white and minority motorists. Second, let us assume that elasticity is relatively constant and is the same for both racial groups. Third, let us assume that minority offending is consistently higher than white offending. Based on these assumptions, a simple model of racial profiling is represented by Graph 4.

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[124] See Peter Verniero, Attorney General of New Jersey, *Interim Report of the State Police Review Team Regarding Allegations of Racial Profiling* 68 (Apr 1999), online at http://www.state.nj.us/lps/intm_419.pdf (visited Aug 19, 2004) ("To a large extent, these statistics have been used to grease the wheels of a vicious cycle—a self-fulfilling prophecy where law enforcement agencies rely on arrest data that they themselves generated as a result of the discretionary allocation of resources and targeted drug enforcement efforts.").

GRAPH 4
Basic Assumptions

X-Axis: Distribution of Searches
(Percent of Searches Conducted by Racial Group)
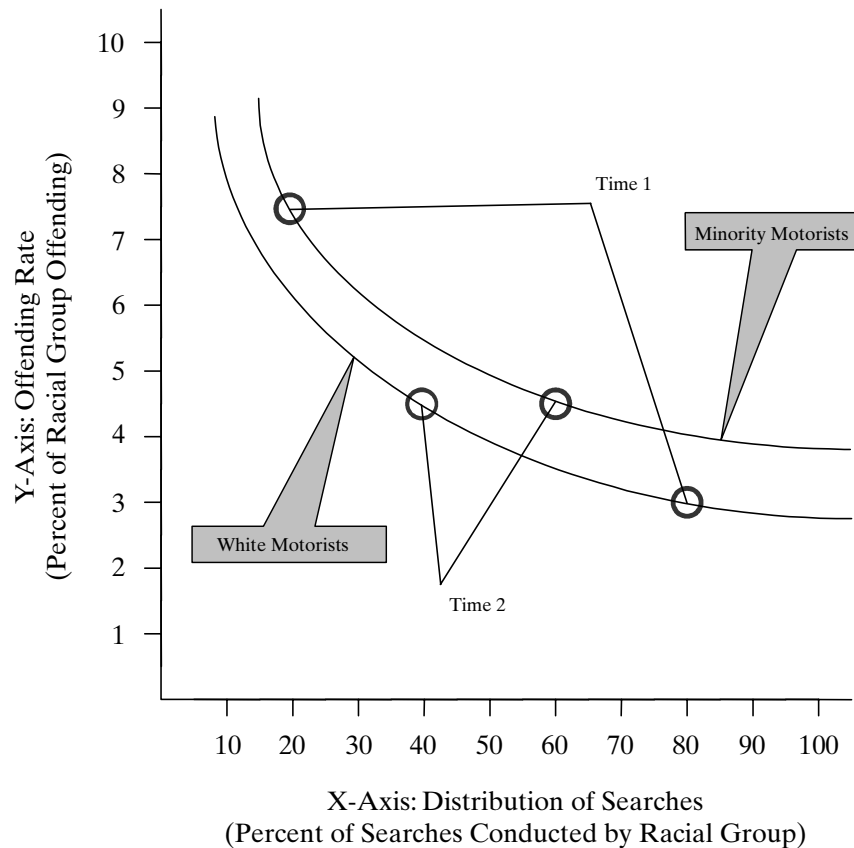
As the graph shows, if the police engage in race-neutral policing and take a random sample of the total motorist population (assume a distribution of 20 percent minority and 80 percent white motorists), then the police will search approximately 20 percent minority and 80 percent white motorists. The police searches will reflect offending rates of approximately 7.5 percent for minority and 3 percent for white motorists (Time 1). If the police engage in racial profiling in a narrowly efficient manner, they will search additional minority motorists until the hit rates converge. Based on this graph, they will need to search 60 percent minority and 40 percent white motorists, achieving equal hit rates related to equal offending rates of approximately 4.5 percent.

This simple model reflects the likelihood of a significant ratchet effect. Even if minority motorists commit more offenses than their representation in the general population—which they do under these assumptions—but far less than 50 percent of the offenses—which is likely since they constitute only 20 percent of the population—the police would nevertheless need to search minority drivers *more* than 50 percent of the time to equalize hit rates. The search differential will exceed the offending differential. This difference is precisely a ratchet effect that magnifies minority representation in the supervised population far in excess of their proportion of the offending population, much less the population as a whole.

The only way to avoid a ratchet effect on this simplified model is if white offending is *less* elastic than minority offending and the offending curves intersect at some point less than 50 percent. This is possible, but it assumes that minority offending is not higher than white offending at every point on the scale—which represents a nontrivial assumption for anyone who is assuming generally higher offending among minority motorists. The model based on these assumptions is represented in Graph 5:

GRAPH 5
Assumptions Necessary to Avoid a Ratchet Effect

Y-Axis: Offending Rate
(Percent of Racial Group Offending)

Minority Motorists

Time 1

White Motorists

Time 2

X-Axis: Distribution of Searches
(Percent of Searches Conducted by Racial Group)
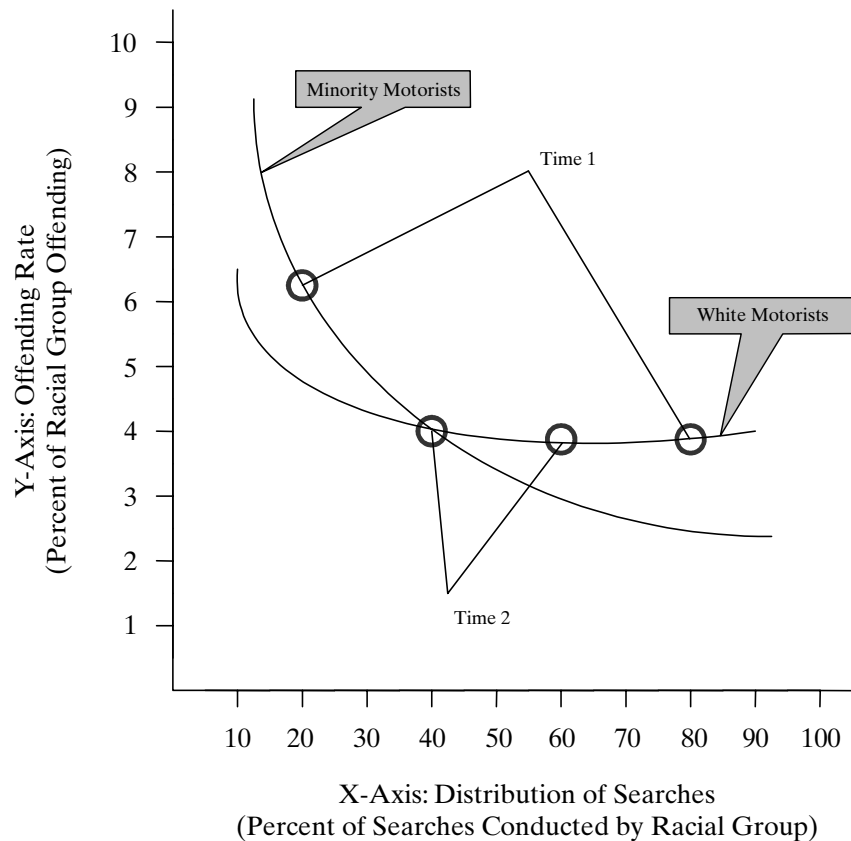
On these narrow assumptions, it would be possible for the offending differential to be reflected perfectly by the policing differential. It would be possible, for instance, for minority motorists, who represent 20 percent of the population, to represent 40 percent of offenders under conditions of random sampling, and for the police to search 40 percent minority motorists to equalize hit rates. If that were the case, there would be no ratchet effect: 40 percent of the offending population would be minority motorists, and 40 percent of the population with negative police contacts (arrests or other negative contact) would also be minority motorists. The police would have increased the overall efficiency of the searches and the total number of successful

searches, yet they would not have created a ratchet effect on the carceral population.

It is important to note, though, that it would not be possible to achieve similar hit rates on this model without a ratchet effect if the point of intersection were at a point greater than 50 percent, as demonstrated in Graph 6. If the point of intersection is to the right of the 50 percent mark, then there is simply no way for the police to equalize hit rates.

GRAPH 6
Different Elasticity and Offending, But No Equal Hit Rates

Y-Axis: Offending Rate
(Percent of Racial Group Offending)

X-Axis: Distribution of Searches
(Percent of Searches Conducted by Racial Group)
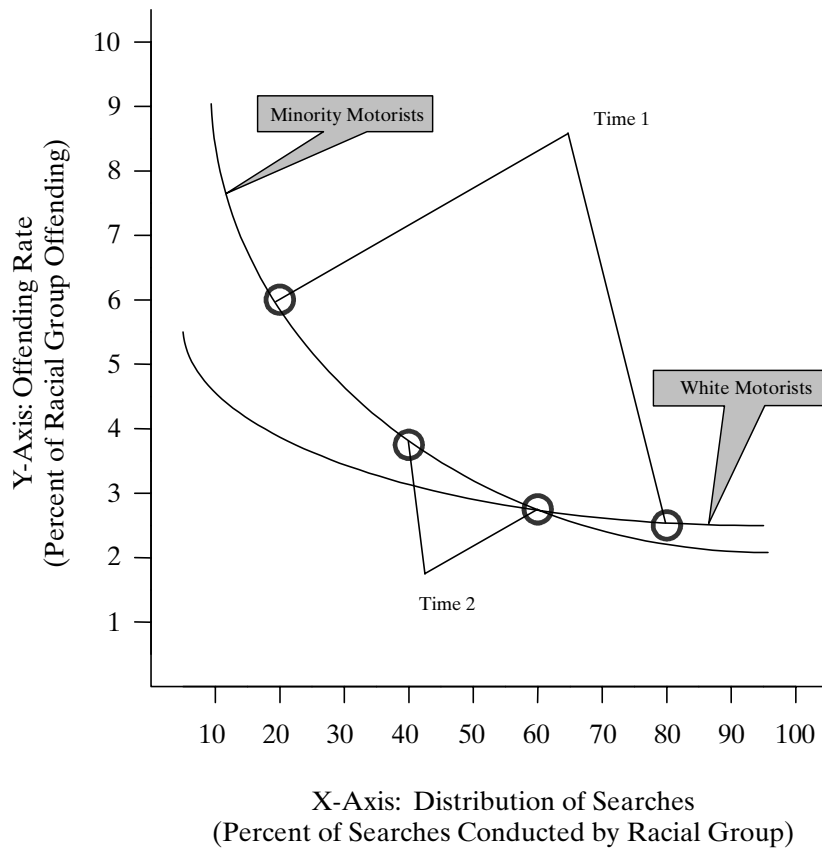
The bottom line is that a ratchet effect is likely under the more common assumptions concerning offending and elasticity. In the model presented here, a ratchet is avoided only if there is lower elasticity for white motorists and the point of intersection is at less than 50

percent. But these assumptions are unrealistic: if minority motorists offend at higher rates than white motorists, there is no apparent reason why that would be the case less than 50 percent of the time. Moreover, although elasticity as between racial groups may differ, there is little reason to believe that white motorists would have *lower* elasticity.[125]

In the final analysis, the civil liberties advocates err in embracing too fully the logic of the economic models of racial profiling. The proper question to ask, at the empirical level, is not whether racial profiling maximizes the success rate of searches, but whether it reduces the profiled crime—namely the illicit transportation of drug contraband on the highways—without creating a ratchet.

III. THE CONSTITUTIONAL LITERATURE

Whether racial profiling reduces the profiled crime without creating a ratchet is also the key question for purposes of constitutional analysis since it ties most directly into the traditional law enforcement interest in combating crime. Unfortunately, the courts and many commentators fail to address the question directly. Instead, they deploy a set of four technical legal distinctions that insulate them from the hard question of race in policing. None of the four distinctions, however, is tenable.

A. The Constitutional Model of Racial Profiling

1. The Fourth versus the Fourteenth Amendment.

The Supreme Court's decision in *Whren v United States*[126] set the stage for the first two legal distinctions. In *Whren*, the police used a minor traffic violation as a pretext to stop and investigate two motorists in a car for drugs. The police suspected the two young African-American men, who were sitting in a Pathfinder with temporary license plates, because they were stopped for a longer than usual amount of time—more than twenty seconds—at a stop sign in a high-drug area and the driver was apparently looking down into the lap of his companion. The two men challenged the pretextual stop as unreasonable under the Fourth Amendment, and argued that allowing such practices would enable the police to stop motorists based on an impermissible factor—race.[127] The Supreme Court rejected their argu-

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125 See Part IV.A.
126 517 US 806 (1996).
127 Id at 808–09.

ment. The Fourth Amendment, the Court declared, does not concern itself with the subjective intentions of police officers, including their possible reliance on race, so long as they had reasonable suspicion or probable cause to justify the seizure—in this case, the traffic violation. Race claims should be addressed to the Equal Protection Clause, not the Fourth Amendment, the Court concluded.[128]

The Court's ruling in *Whren* sent two signals. First, Fourth Amendment analysis differs in kind from equal protection analysis, and claims of racial bias should be addressed to the latter, not the former. Second, and more indirectly, in the Fourth Amendment context race can legitimately be considered as a factor in the determination to stop an individual so long as the police independently have reasonable suspicion. This doctrinal framework of bifurcated Fourth and Fourteenth Amendment analysis has guided lawyers and lower courts; most legal discussions of racial profiling address each claim separately.

Most constitutional scholars have criticized this practice and argued that notions of equal protection should inform our interpretation of the Fourth Amendment.[129] Their conclusion is right, but not always for the right reason. The principal reason to reject separate Fourth and Fourteenth Amendment analyses is that each begins with a similar factual question: whether race predicts criminality. Although the doctrinal analyses obviously differ—reasonable suspicion on one hand, narrowly tailored to a compelling governmental interest on the other—they both trigger a threshold factual determination of whether race is a valid predictor of the profiled crime. If there is a strong correlation between race and the profiled crime, then race may raise legitimate suspicion and may also represent a means to satisfy the government's interest in combating crime. The analyses then turn on the *degree* of predictive power as compared to other factors that would satisfy the constitutional tests, as well as, for purposes of the equal protection analysis, whether the police technique is narrowly tailored to

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[128] Id at 813 ("We of course agree with petitioners that the Constitution prohibits selective enforcement of the law based on considerations such as race. But the constitutional basis for objecting to intentionally discriminatory application of laws is the Equal Protection Clause, not the Fourth Amendment.").

[129] See, for example, Rudovsky, 3 U Pa J Const L at 348 (cited in note 8) (arguing that "artificial doctrinal lines that the Supreme Court has drawn around the Fourth and Fourteenth Amendments" create "disquiet[ing]" results); Alschuler, 2002 U Chi Legal F at 193 & n 121 (cited in note 2) (characterizing the Court's "compartmentalization" as "artificial" and gathering commentary reaching the same conclusion); Anthony C. Thompson, *Stopping the Usual Suspects: Race and the Fourth Amendment*, 74 NYU L Rev 956, 961 (1999) (asserting that the Supreme Court "took a wrong turn" in writing race out of the Fourth Amendment); Carol S. Steiker, *Second Thoughts about First Principles*, 107 Harv L Rev 820, 844 (1994).

the law enforcement interest. To be sure, race triggers strict scrutiny rather than rational basis review under Fourteenth Amendment analysis. But for purposes of thinking through the analysis, race is no different from other crime prediction factors such as gender, age, education, family history, and prior criminality. It functions in the same way for purposes of criminological prediction and, thus, for purposes of reasonable suspicion or fighting crime. Unless race predicts criminality, it clearly does not raise articulable or other suspicion and, at the same time, does not promote the governmental interest in fighting crime.[130]

Tracey Meares and I make a similar point outside the race context with regard to the predictive factor of fleeing from the police in our discussion of *Illinois v Wardlow*.[131] In that case, the Court decided that flight from an identified police officer in an area known for heavy narcotics trafficking constituted reasonable suspicion—and therefore that the stop was constitutional—based on a common sense judgment that fleeing from the police was inherently suspicious. Meares and I argue that, rather than relying on common sense intuitions, the majority should instead have explored empirical data on prediction:

> If we knew that crime was indeed afoot in the vast majority of cases in which police stopped individuals on the street after such individuals had run away from them, . . . then we would . . . conclude that this category of information is a good reason *ex ante* for police action, not only because the category of information seems to reliably indicate guilt of crime, but also because the particular criterion satisfied by the category of information—how reliably the information indicates that crime is afoot—is a legitimate explanation for police action.[132]

In the *Wardlow* case, data from New York City suggested that this particular factor—fleeing from the police—was not a good predictor of criminality. A report issued by Eliot Spitzer, the Attorney General of New York, collected information on a sample of stops based on facts that, as reported by the police, clearly met the constitutional standard of reasonable suspicion, as well as on stops based on facts that courts have decided clearly would not constitute reasonable sus-

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[130] The use of race could promote other governmental interests—for instance, remedying past discrimination or promoting diversity in the prison population by targeting white suspects.

[131] 528 US 119 (2000); Tracey L. Meares and Bernard E. Harcourt, *Foreword to Supreme Court Review: Transparent Adjudication and Social Science Research in Constitutional Criminal Procedure*, 90 J Crim L & Criminol 733 (2000).

[132] Meares and Harcourt, 90 J Crim L & Criminol at 780 (cited in note 131).

picion.[133] With respect to the *Wardlow* factor, the data suggested that "[s]tops reported as undertaken because the suspect fled the scene"—even in high crime areas—had similar stop-to-arrest ratios as "stops based on factors generally understood to fail to satisfy the reasonable suspicion test."[134] These data, Meares and I argued, supported the dissenters' view in *Wardlow* that flight was an inadequate predictor of criminal activity. Our point was not that data would resolve the legal question—how predictive a factor must be to meet the constitutional standard inevitably implicates normative judgments—but that data would allow courts to compare this factor to others that have passed constitutional review.

The same analysis should apply to race as a predictive factor. To address the Fourth Amendment question, a court should determine whether any evidence shows that race is a predictive factor, and, if so, to what degree. Only if it passes this test might it be a reasonable ground for suspicion, and therefore possibly promote a governmental interest—so long as the use of race is narrowly tailored to that interest. Both analyses—the Fourth and Fourteenth Amendments—turn on this initial question. It makes no sense to decouple them.

2.   The Fourth Amendment: race as sole or partial factor.

The Supreme Court's decision in *Whren*—along with several earlier border patrol cases from the mid-1970s[135]—also set the stage for the second legal distinction, namely the distinction between using race exclusively as the basis of suspicion and using race as one factor among other factors that establish justifiable cause. The Court in *Whren* essentially condoned using race under the Fourth Amendment as long as there is independent justification for the search—in essence, tucking the race issue under the rug, since few savvy police officers confess to stopping a suspect based on race alone.

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[133]   Civil Rights Bureau, Office of the Attorney General, *The New York City Police Department's "Stop & Frisk" Practice: A Report from the Office of the Attorney General* xiii–xiv (Dec 1, 1999), online at http://www.oag.state.ny.us/press/reports/stop_frisk/stp_frsk.pdf (visited Aug 19, 2004). See generally Harcourt, *Illusion of Order* at 173–75 (cited in note 32) (discussing the report's data and conclusions).

[134]   Meares and Harcourt, 90 J Crim L & Criminol at 790 (cited in note 131).

[135]   See *United States v Martinez-Fuerte*, 428 US 543, 563–64 (1976) (permitting the referral of motorists "selectively to [a] secondary [border] inspection area . . . largely on the basis of apparent Mexican ancestry"); *United States v Brignoni-Ponce*, 422 US 873, 884–87 (1975) (holding that the "apparent Mexican ancestry of the [car's] occupants," without further "specific articulable facts," is not reasonable grounds to believe the occupants were aliens). See generally Gross and Barnes, 101 Mich L Rev at 732–38 (cited in note 2) (discussing whether the Fourth Amendment prohibits all racial considerations in the decision to stop or search).

Although the lower courts are split on this question, several important decisions accept *Whren*'s invitation to ignore race. *United States v Weaver*[136] is typical. In *Weaver*, a DEA agent, using a drug courier profile, stopped and frisked a passenger exiting a plane at the Kansas City airport.[137] One of the factors that the agent relied on was race: the suspect was an African-American man, and the DEA agent was on the lookout especially for "young roughly dressed black males from street gangs in Los Angeles."[138] Weaver challenged his seizure on the grounds that the police lacked reasonable suspicion.

The Eighth Circuit rejected the Fourth Amendment challenge, finding that the nonracial factors gave the police articulable suspicion.[139] In a dissenting opinion, Chief Judge Arnold raised the issue of race, and argued that there was insufficient evidence that race is a predictor of drug offenses to justify using race, which "simply reinforces the kind of stereotyping that lies behind drug-courier profiles. When public officials begin to regard large groups of citizens as presumptively criminal, this country is in a perilous situation indeed."[140] In a footnote, the majority responded:

> We agree with the dissent that large groups of our citizens should not be regarded by law enforcement officers as presumptively criminal based upon their race. We would not hesitate to hold that a solely race-based suspicion of drug courier status would not pass constitutional muster. Accordingly, had [DEA agent] Hicks relied solely upon the fact of Weaver's race as a basis for his suspicions, we would have a different case before us. As it is, however, facts are not to be ignored simply because they may be unpleasant — and the unpleasant fact in this case is that Hicks had knowledge, based upon his own experience and upon the intelligence reports he had received from the Los Angeles authorities, that young male members of black Los Angeles gangs were flooding the Kansas City area with cocaine. To that extent, then, race, when coupled with the other factors Hicks relied upon, was a factor in the decision to approach and ultimately detain

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[136] 966 F2d 391 (8th Cir 1992).

[137] Id at 392–93.

[138] Id.

[139] See id at 396 (finding that Weaver's walking quickly toward a taxi, lacking a copy of his plane ticket and identification, and appearing nervous constituted reasonable suspicion that Weaver carried drugs).

[140] Id at 397 (Arnold dissenting).

Weaver. We wish it were otherwise, but we take the facts as they are presented to us, not as we would like them to be.[141]

Many courts have similarly sidestepped the race issue by relying on nonracial factors either to find or not to find reasonable suspicion.[142] Other federal courts have gone the other way and struck down the use of race under circumstances where race was one among several factors used to stop or search a suspect.[143] State courts are also split on this question.[144] But the growing tendency is for courts to wrangle over the question and to send a signal that they do not want to deal with the race issue under the Fourth Amendment.[145]

Nevertheless, at the end of the day, there remains a loose legal distinction between using race exclusively and using race as one among other factors. The first use of race is practically unanimously condemned. In fact, if the police in *Whren* had argued that the legitimacy of the search rested entirely on the race of the two motorists, there is little doubt that the Court would have struck down the search. The second use of race is more controversial, but it can generally be avoided by focusing on the other factors that raise suspicion.[146]

Both of these conclusions, however, are wrong. The first—that the exclusive use of race is impermissible—simply ignores or is willfully blind to the possibility that, under some rare or unique circumstances,

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[141] Id at 394 n 2.

[142] See generally Gross and Barnes, 101 Mich L Rev at 735 (cited in note 2), discussing *Derricott v State*, 327 Md 582, 611 A2d 592 (Md Ct App 1992), and *United States v Davis*, 2001 US App LEXIS 10997 (2d Cir). Some courts have also used the same logic—reliance on nonracial traits justifies the stop and vitiates the constitutional claim—in the equal protection context. Alschuler, for example, has identified several cases from the Sixth Circuit that do just this: where the police used other legitimate reasons to interview a suspect, the legitimacy of those other reasons cancels out the equal protection violation of improperly relying on race. See Alschuler, 2002 U Chi Legal F at 178 (cited in note 2).

[143] See *United States v Nicholas*, 448 F2d 622, 625 (8th Cir 1971) (holding impermissible a search based on "a generalized suspicion that any black person driving an auto with out-of-state license plates might be engaged in criminal activity"); *United States v Laymon*, 730 F Supp 332, 339 (D Colo 1990) (finding that a traffic stop based on the defendant's weaving was a pretext for an impermissible stop based on the defendant's out-of-state license plates and race). Consider also *United States v Montero-Camargo*, 208 F3d 1122, 1131 (9th Cir 2000) (holding that Hispanic appearance "is of little or no probative value" where the majority of people who pass through checkpoints are Hispanic, but affirming the conviction because other grounds were sufficient).

[144] See generally Gross and Barnes, 101 Mich L Rev at 734 & nn 253–54 (discussing state court holdings).

[145] See id at 737–38.

[146] See R. Richard Banks, *Race-Based Suspect Selection and Colorblind Equal Protection Doctrine and Discourse*, 48 UCLA L Rev 1075, 1086–87 n 47 (2001) ("The consensus view seems to be that race may be considered as one of many factors, but may not be the only factor in an officer's decision to stop an individual."). See also Gross and Barnes, 101 Mich L Rev at 733 (suggesting that there is "a general view that race may not be the sole basis for deciding who to stop or search, but that it may constitutionally be considered as one factor among others").

race may be such a strong predictor of criminality that it raises justifiable suspicion. *If race alone* predicts a form of criminality to the satisfaction of a Fourth Amendment level of suspicion, it should be evaluated like any other predictive factor rather than being per se impermissible.

Few, if any, commentators take this position even though it is theoretically correct. As Rudovsky suggests, "Virtually everyone agrees that it is impermissible to stop or search someone *solely* on the basis of race."[147] Moreover, Fourth Amendment law, as enshrined in *City of Indianapolis v Edmond*,[148] requires individualized suspicion for searches intended to advance a general interest in crime control.[149] The few commentators who advocate lifting the ban on group searches—such as Stuntz for example—take pains to emphasize that "groups" do not include "racial groups."[150]

The unanimous commentary and the *Edmond* rule are, however, incoherent. They rest on a false distinction between probabilistic analysis by group trait versus probabilistic analysis by individual suspicion. But in both cases, the police are making an odds calculation. For purposes of the Fourth Amendment—a constitutional provision grounded on a reasonableness standard that depends on a probabilistic analysis—the two are identical. The permissibility of a group search—including a group search of a racial or ethnic group—should depend on the predictive power of the group trait, in the same way that the permissibility of individualized suspicion depends on the predictive power of the individualized traits. Race as a predictor of criminality should be no different. Constitutionality does not, of course, mean that racial profiling is a wise policy choice, but that is another matter.

The second conclusion—that partial use of race can be ignored if other factors justify the search—is equally wrong.[151] If race is used as

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[147] Rudovsky, 3 U Pa J Const L at 306 (cited in note 8).

[148] 531 US 32 (2000).

[149] Id at 44 (declaring that "we are particularly reluctant to recognize exceptions to the general rule of individualized suspicion where governmental authorities primarily pursue their general crime control ends").

[150] See Stuntz, 111 Yale L J at 2164–65 (cited in note 15) (arguing that the *Edmond* norm against group searches is "perverse"). As Stuntz emphasizes, "groups are defined by time and place, not by demographic category": a group seizure includes "the temporary seizure of all cars passing through a given intersection on a given afternoon," but not the "seizure of all young men of Middle Eastern origin." Id at 2141 n 9.

[151] Here, several legal commentators have criticized the outcome, but for different reasons. See, for example, Alschuler, 2002 U Chi Legal F at 175–79 (cited in noted 2) (noting that permitting the police to use race as a factor "is insufficient under the Constitution," because racial classifications require a compelling governmental interest and a "'rational basis' will not do"); Ran-

part of a profile, then a court adjudicating the Fourth Amendment question should inquire into whether race contributed in any way to the predictive capacity of the profile, regardless of whether the other profiled traits satisfy constitutional standards.[152] If race does contribute and the overall profile provides the quantum of suspicion that satisfies the constitutional standard, then using race as part of the profile presents no Fourth Amendment problem. If it did *not* contribute, then using race as a part of the profile raises a Fourth Amendment problem *regardless* of whether the overall profile satisfies the constitutional standard. We could then debate whether to impose the remedy of suppression or another remedy; and the fact that a Fourth Amendment remedy may be appropriate in the case of race though not for other traits that turn out to be irrelevant—such as, for instance, height—would reflect the constitutional scrutiny given to race as a protected category. Up until that point, though, race should be treated like any other predictive trait in analyzing whether or not it contributed to the predictive power of the profile—in other words, whether or not it raises suspicion.

3. Equal protection: excluding witness identifications.

The third legal technicality draws a distinction between using race absent individualized suspicion about the particular suspect and using race where there is an eyewitness identification based on race. The first is generally associated with racial profiling: stopping a minority motorist because minority motorists are assumed to offend at higher rates. The second is what we generally associate with detective work: getting an identification from a witness and tracking down suspects who match that description. Most courts hold that the latter is not "using race." Often, the reason is that relying on an identification

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dall Kennedy, *Race, Crime, and the Law* 148–49 (Pantheon 1997) (arguing that the courts are wrongly permitting the realities of policing to "dictate the way in which the legal order should respond," much in the same way some once believed that violent resistance to desegregation should have dictated suspending desegregation). Randall Kennedy, for instance, has argued that partial consideration of race should be deemed the same as exclusive consideration of race given that race, even when claimed to be used partially, really overtakes all other considerations. As a result, Kennedy objects to *any* reliance on race in the decision to stop or search suspects. See Kennedy, New Republic at 33 (cited in note 121) ("Taking race into account at all means engaging in racial discrimination.").

[152] Anthony Thompson, one of the few commentators who advocates a similar position, sets out how a reviewing court could do this: "[A] court would begin by providing guidelines regarding the types of situations in which race could be a factor in suspicion. Then, the court would be expected to scrutinize the officer's motivations to determine if the circumstances in a given case warranted this reliance on race." Thompson, 74 NYU L Rev at 1005 (cited in note 129).

is a race-neutral policy: the content may be race-specific, but the policy itself is race neutral.[153]

Curiously, many constitutional commentators endorse this distinction. In fact, as Richard Banks correctly observes, "Even the harshest scholarly critics of racial profiling endorse police use of suspect descriptions."[154] Gross and Livingston write, for instance:

> It is not racial profiling for an officer to question, stop, search, arrest, or otherwise investigate a person because his race or ethnicity matches information about a perpetrator of a specific crime that the officer is investigating. That use of race . . . does not entail a global judgment about a racial or ethnic group as a whole.[155]

Rudovsky similarly defines racial profiling so as to exclude witness identification cases—"except where police are acting on a racial description of the perpetrator of a crime."[156] And many commentators do not place the same type of limits on eyewitness racial identifications. So, for instance, Rudovsky observes: "Certainly police can consider race where a physical description is provided, but absent that factor, or other self-limiting factors, race cannot be considered in the decision to stop, detain, or search."[157] It is fair to say, with Banks, that the "con-

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[153] See, for example, *Brown v City of Oneonta*, 221 F3d 329, 337 (2d Cir 2000) (deeming race-neutral the state policy of "investigat[ing] crimes by interviewing the victim, getting a description of the assailant, and seeking out persons who matched that description").

[154] Banks, 48 UCLA L Rev at 1078 (cited in note 146). See also Alschuler, 2002 U Chi Legal F at 265–66 (cited in note 2) ("Almost no one seeks to prevent the police from using race as a partial description of physical appearance."). Consider U.S. Department of Justice, *Guidance Regarding the Use of Race by Federal Law Enforcement Agencies* (June 2003), online at http://www.usdoj.gov/crt/split/documents/guidance_on_race.htm (visited Aug 20, 2004) (prohibiting racial profiling in federal law enforcement activities "except that officers may rely on race and ethnicity in a specific suspect description").

[155] Gross and Livingston, 102 Colum L Rev at 1415 (cited in note 8). See also Gross and Barnes, 101 Mich L Rev at 655 n 10 (cited in note 2) ("[I]t is not racial profiling for an officer to stop, question, search, or arrest a person because his race matches the description of the perpetrator of a specific crime that has been reported."). Gross and Barnes note that "racial profiling is impossible once the police are looking for a particular person—the victim's partner, the woman in the surveillance video, Osama bin Laden." Id at 655.

[156] Rudovsky, 3 U Pa J Const L at 299 n 27 (cited in note 8).

[157] Id at 328. See also id at 308 n 79 ("Race is an appropriate factor in stops where the police have been provided with a description of a criminal suspect."). Rudovsky does give a more refined analysis of *Oneonta*: where the race identification becomes the primary or predominant factor, then Rudovsky suggests strict scrutiny should apply; however, the application seems to turn on the form of the investigation, rather than on the probability analysis and three conditions discussed in this Article. Id at 348. Sheri Lynn Johnson similarly writes:

> The use of race to identify a particular perpetrator, for example, does not disadvantage any racial group and thus does not require strict scrutiny. Although the suspect's race is noted and weighed in the decision to detain, no *generalizations* about the characteristics, behavior, or appropriate treatment of the racial group are employed.

sensus view of legal scholars casts . . . race-based suspect descriptions as innocuous and unquestionably legitimate."[158]

The leading case discussed for this proposition is *Brown v City of Oneonta*.[159] In that case, a victim identified a burglar as a young African-American male; according to the reported decision, the description included a knife wound to the hand, allegedly inflicted during a struggle with the victim.[160] In response, the police interrogated every African-American male student at the local college and conducted a sweep of the town "stopping and questioning non-white persons on the streets and inspecting their hands for cuts."[161] The African-American population in Oneonta was in the neighborhood of 300 people, with another 150 at the state university. Several such residents sued the police for violating their civil rights. The court and the attorneys, naturally, addressed the Fourth Amendment and Equal Protection Clause arguments separately.[162] With regard to the equal protection claim, the Second Circuit ruled that the police had not purposely classified by race or engaged in intentional discrimination based on race when questioning African-American residents and students. Instead, the police had relied on a race-neutral technique, focusing attention on persons who matched the eyewitness identification. The policy itself—namely "to investigate crimes by interviewing the victim, getting a description of the assailant, and seeking out persons who matched that description"[163]—was race-neutral on its face, the court declared. And even though the policy as applied here had a disparate racial impact, without an additional showing of intent to discriminate, "the disparate impact of an investigation such as the one in this case is insufficient to sustain an equal protection claim."[164]

Sheri Lynn Johnson, *Race and the Decision to Detain a Suspect*, 93 Yale L J 214, 242–43 (1983).

[158] Banks, 48 UCLA L Rev at 1083 (cited in note 146). See generally id at 1083–85 (compiling a list of authoritative legal scholars who endorse the use of race-based suspect descriptions).

[159] 221 F3d 329 (2d Cir 2000).

[160] Id at 334. Purportedly based on this information, the police accosted suspects to look at their hands. According to some media accounts, however, the victim never made any statement about the knife wound. See, for example, *60 Minutes II: The Black List* (CBS television broadcast Feb 13, 2002) (reporting the contents of the original police investigative record).

[161] *Oneonta*, 221 F3d at 334.

[162] With regard to the Fourth Amendment claim, the Second Circuit held that "a description of race and gender alone will rarely provide reasonable suspicion justifying a police search or seizure." Id. The court remanded the case to allow certain plaintiffs who had been seized to pursue their claim under a Fourth Amendment theory. Id at 341–42. The court's treatment of the Fourth Amendment claim is in accordance with my argument.

[163] Id at 337.

[164] Id at 338.

This distinction also makes no sense. In this regard, the minority position advocated by a few commentators—Banks[165] and Albert Alschuler[166] especially—gets it right. When the police work from an eyewitness identification, they use probabilities in exactly the same way as when they rely on racial correlations with crime. Ironically, they may be working off *less reliable* information; eyewitness identification is notoriously untrustworthy.[167] But whether race may be considered depends on whether race functions sufficiently to narrow down the suspect pool. In most cases, eyewitness racial identification will likely satisfy this standard. That race-based suspect identification should be subject to equal protection review does not mean that it should be prohibited.[168] Nevertheless, courts should analyze the degree to which eyewitness racial identifications are reliable under different circumstances, and, naturally, should distinguish between intra- and cross-racial identifications given their distinct error rates. Courts could then explore whether the racial category narrows down the pool of suspects sufficiently in the particular case. Surely, sometimes race (either in whole or in part) is a valid predictor and, if properly incorporated in the criminal profile and used properly, can be expected to cull the pool of suspects dramatically. Under these conditions, the state would

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[165] Banks argues that the categorical distinction is wrong: "Suspect description reliance is not racially innocuous and, under equal protection doctrine, it should be treated as a racial classification." Banks, 48 UCLA L Rev at 1080 (cited in note 146). He relies in part on the "functional similarities" between racial profiles and race-based suspect identifications, pointing out that both categories feed into each other. Id at 1096. Yet Banks does not go so far as to argue, as I do here, that the two are identical in the sense that they are both probabilistic determinations. The statement "I think he was *X*" is a statement of probabilities of the same type as "*X* persons commit crime statistically more often."

[166] Alschuler also argues that the categorical distinction is wrong. He writes that the Oneonta police used an "express racial classification":

> When an officer, relying on a witness description, restricts the liberty of black men in green coats and not the liberty of white men in green coats, this officer differentiates by race. Of course the officer's conduct may nevertheless be legitimate. Identifying a racial classification begins, not ends, the inquiry.

Alschuler, 2002 U Chi Legal F at 183 (cited in note 2). Moreover, as Alschuler suggests, all eyewitness racial identifications *turn into* racial profiling: "[T]he victim's front-end particularity becomes the police officer's demographic generality at the point of arrest or detention." Id at 200. Alschuler's argument, however, should be made in these slightly stronger terms.

[167] See generally Elizabeth F. Loftus, *Eyewitness Testimony* (Harvard 1979).

[168] See Banks, 48 UCLA L Rev at 1081 ("I do *not* argue that suspect description reliance should be prohibited, as a matter of either policy or constitutional doctrine."). Elsewhere in the article, Banks suggests, based on probabilities, that subjecting race-based suspect identifications to strict scrutiny would likely be fatal. See id at 1117. Under the analysis I propose, however, it would all depend on the probabilistic analysis of the effect on the profiled crime and on the ratchet effect, rather than on the probabilistic analysis of prior Supreme Court decisions.

likely have a compelling governmental interest in using race as a factor in identifying suspects, but not otherwise.

    4.   Equal protection: inferring intent.

The Supreme Court's decisions in *McCleskey v Kemp*[169] and *United States v Armstrong*[170]—which extend the *Washington v Davis*[171] requirement of intent to the criminal justice sphere—set up the final major legal distinction in the racial profiling context. It is the requirement that a successful equal protection challenge rest on evidence of intentional discrimination rather than on inference from unexplained disparate treatment.[172]

Many commentators have criticized the actual intent requirement in the racial profiling context—as well as in other criminal justice contexts.[173] Alschuler, for instance, suggests that courts should substitute social meaning for intent: "Targeting only black street gangs or only black drug dealers, for example, clearly conveys the message that blacks are more to be feared than whites. The Equal Protection Clause should require the government to justify its delivery of this message."[174] Though appealing in certain respects, the turn to social meaning may not necessarily clarify or simplify this area of the law. The social meaning of governmental action is often in the eye of the beholder.

Gross and Barnes, in their discussion of the notorious New Jersey case *State v Soto*,[175] suggest a more promising solution. In the *Soto* case, the lower state court, relying in part on New Jersey precedent, carved an exception to the *McCleskey* requirement on the grounds that the decision to stop and search involves fewer variables than the decision to sentence someone to death. The reduction in variables narrows and simplifies the claim of racial discrimination and therefore, the court

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[169]   481 US 279 (1987). In *McCleskey*, the Court rejected an equal protection claim for lack of a showing of actual discriminatory intent, where the petitioner produced evidence that murderers of white victims are 4.3 times more likely to be sentenced to death than murderers of African-American victims. Id at 287, 291–99.

[170]   517 US 456 (1996). In *Armstrong*, the Court required evidence of discriminatory purpose in the context of a selective prosecution challenge. Id at 465.

[171]   426 US 229 (1976). In *Davis*, the Court articulated the principle that the Equal Protection Clause bars only intentional discrimination. Id at 239–41.

[172]   See generally Rudovsky, 3 U Pa J Const L at 322–29 (cited in note 8).

[173]   See, for example, id (providing critical commentary on both *McCleskey* and *Armstrong*); Alschuler, 2002 U Chi Legal F at 201–07 (cited in note 2) (critiquing *Armstrong*); Gross and Barnes, 101 Mich L Rev at 741 (cited in note 2) (lamenting the "near impossibility" of meeting the actual intent requirement).

[174]   Alschuler, 2002 U Chi Legal F at 212.

[175]   324 NJ Super 66, 734 A2d 350 (1996).

suggested, statistical evidence may be sufficient to prove intentional discrimination in the racial profiling context.[176] The decision to stop and search involves not only fewer variables than the decision to sentence to death, but also fewer decisionmakers. In the first case, the decisionmakers are all police officers, generally from the same patrol unit; in the second, they include prosecutors, grand jurors, petit jurors, judges, and defense attorneys. Although, as Gross and Barnes observe, the New Jersey court did not rely on this second distinction, it is important—perhaps even more important than the first.

Racial profiling on the highways as a potential form of discrimination is more analogous to the *Batson v Kentucky*[177] situation involving the prosecutor's use of peremptory challenges than it is to the *McCleskey* problem of racial discrimination in the death penalty or the criminal justice system more generally. In both racial profiling and the *Batson* context, the decisionmaker is one or more members of a discrete law enforcement agency—whether a state patrol unit or a district attorney's office. The decision to search and the decision to strike a juror peremptorily are each based on a limited set of factors that identify suspects or biased jurors—bumper stickers and car models on the one hand, defense sympathies and orientations on the other. Moreover, the decisionmakers have the ability—and should have the opportunity—to explain exactly why they decided to search or strike an African-American or Hispanic person.

For these reasons, the constitutional analysis of alleged racial profiling under an equal protection challenge should follow the three-step model of *Batson*.[178] This would not eliminate the intent requirement or reverse *Washington v Davis*; instead, it would merely extend the *Batson* method of inferring intent to the racial profiling context. Under a *Batson*-type approach, statistical discrepancies in the race of persons searched would satisfy the first prong of the analysis and set forth a prima facie case. This accords with the economic model of racial profiling, which essentially assumes that the disproportionate searches of minority motorists are not accidental. Once the statistical burden has been satisfied, the police unit would then be required either to offer race-neutral reasons for the disparities (that is, to offer other factors that, when held constant, eliminate the racial correlation with searches) or to present evidence that race is a statistically significant predictor of crime and that racial profiling satisfies the limited condi-

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[176] See id at 360. See also Gross and Barnes, 101 Mich L Rev at 723–26 (cited in note 2) (discussing the *Soto* decision).

[177] 476 US 79 (1986).

[178] Id at 96–98.

tions that make it constitutionally acceptable—namely, that it maximizes search success without creating a ratchet effect and combats long-term crime.[179] If the state satisfies its burden, then the challenging party should have the opportunity to rebut the state's evidence.

The *McCleskey* requirement of proof of actual intent fails to recognize—as most observers do, and as the economic model of racial profiling correctly assumes—that the police are intentionally using race if they knowingly dedicate 60 percent of their searches to African-American motorists. The question should be whether the police have a constitutionally satisfactory reason for using race that justifies the disproportionality. Requiring proof of actual intentional discrimination by a police officer from the challenging party places the burden on the wrong party. If the police are going to engage in discrimination by searching a disproportionate number of minority motorists, then they should have the burden of proving that this will promote a compelling state interest. Barring that proof, the disproportionate searches *are* intentionally discriminatory and should be held to violate the Equal Protection Clause.

B.   An Alternative Proposal

1.   The Fourth Amendment.

If there is an offending differential between races, then membership in a racial group increases the probability of being an offender. Race would represent, therefore, an element of articulable suspicion. Does it amount to "reasonable suspicion" for purposes of a *Terry* stop[180] or "probable cause" for purposes of a full-blown seizure? In most cases, race alone may not, and in this limited sense, the Second Circuit in *Oneonta* is right. But it all depends on how predictive it is. It would justify a stop or seizure if race alone is either (1) so predictive that it reaches the level of prediction that satisfies the standard of reasonable suspicion or probable cause, or (2) predictive and, along with other factors, contributes to a level of prediction that satisfies the standard of reasonable suspicion or probable cause. The key is to calculate any relevant offending differentials to measure how prediction based on race compares to the predictive power of other factors that pass Fourth Amendment scrutiny. Absent an offending differential,

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[179]   Here the analysis diverges somewhat from *Batson*, given that no court has held that the state could satisfy its burden of proof at the second stage by demonstrating that minority jurors are statistically more defense-oriented.

[180]   *Terry v Ohio*, 392 US 1 (1968).

membership in a racial group should not be included in reasonable suspicion or probable cause, either as the sole reason or as one among a set of factors. Under either circumstance, the Fourth Amendment would be violated by the inclusion of race in the decision to search a suspect.

Take the *Oneonta* example. Let us assume that the description of the perpetrator in that case was that he was a young black male. The African-American population in Oneonta, including the college, was in the neighborhood of 450 people. If we assume that a quarter of the residents and half of the college students are young African-American men—about 150 total—then the odds of any one young black male being the perpetrator are 1 in 150. Clearly those are not the type of odds that a court should associate with reasonable suspicion.[181] As a result, it would be improper from a Fourth Amendment perspective to detain for questioning—or for that matter more intrusively to seize and arrest—young African-American men based on the witness identification. The police simply lack enough narrowing identifying characteristics to begin fingering individuals on the basis of race, and they must continue to investigate in other ways.[182]

2. Equal Protection.

If race does not correlate with the specific crime under investigation and is therefore not a reliable predictor of crime that raises justifiable cause for investigation—in other words, if the use of race fails Fourth Amendment scrutiny—then the use of race by the police also does not promote the traditional law enforcement interest of fighting crime.[183] If, on the other hand, race is a reliable predictor of the profiled crime, then further constitutional analysis under the Fourteenth Amendment is in order.

Fighting crime—actually reducing crime—would qualify as a compelling state interest.[184] The key question, for purposes of equal

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[181] See Meares and Harcourt, 90 J Crim L & Criminol at 791 (cited in note 131) (reporting a 1999 study finding 7.3 stops-to-arrest ratio for reasonable suspicion stops).

[182] See Alschuler, 2002 U Chi Legal F at 184 (cited in note 2) (comparing the predictive power of the *Oneonta* profile to that of one "found in a fortune cookie").

[183] Note that the use of race could promote other governmental interests. See note 130 (offering examples).

[184] Though some question this conclusion, I have no doubt that post–*Grutter v Bollinger*, 539 US 306 (2003), which deemed promoting a diverse student body a compelling state interest, see id at 332–33, fighting crime most probably would as well. Banks argues otherwise: "The recognition of ordinary law enforcement objectives as compelling would represent a departure from settled doctrine." Banks, 48 UCLA L Rev at 1119 (cited in note 146). Banks argues, "The Court has never described ordinary law enforcement objectives as compelling, having on at least one occasion specifically declined to do so." Id, referring to *Martinez-Fuerte*, 428 US at 556–57, which

protection, is whether the use of race is *narrowly tailored* to serve this interest, given that the intentional use of race as a factor in policing would trigger strict scrutiny.[185] The requirement of narrow tailoring would preclude policing techniques that have unacceptable collateral consequences on the profiled population, such as a ratchet effect.

Under this proposal, the equal protection analysis would logistically follow the three-step *Batson* model. With regard to the first prong, proof of statistically disproportionate searches of minority motorists would constitute a prima facie case and shift the burden of proof onto the government. At this second stage, the government would be required either to offer a race-neutral reason for the disparities, such as, for instance, the existence of other factors that eliminate the racial correlation, or to present evidence that race is a reliable predictor of the crime at issue and that racial profiling has a long-term negative effect on the profiled crime while increasing the efficient allocation of police resources. If the government is able to sustain its burden, then the challenging party may either attempt to rebut the showing or demonstrate a ratchet effect on the profiled population that indicates that the policy is not narrowly tailored to the compelling governmental interest of fighting the profiled crime.

The premise of this approach, naturally, is that the consideration of race in policing—whether it is used as the only factor or as part of a profile—should trigger strict scrutiny.[186] This is how race differs from other predictive factors: it receives heightened scrutiny in contrast to nonprotected categories, but it is not treated differently from the perspective of prediction. The proposed analysis accepts the "compelling state interest" framework, and therefore the inquiry turns on whether the police strategy is narrowly tailored to the governmental interest of fighting crime—which, in turn, depends on whether the three narrow conditions of justified racial profiling are satisfied. This approach

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conceded the "substantiality" of the public interest served by interdicting illegal immigration but declined to deem it compelling. See also Johnson, 93 Yale L J at 247 (cited in note 157) ("The law enforcement interests at stake in detention decisions cannot meet . . . the 'compelling state interest' requirement."). In contrast, Alschuler argues that "[f]inding and prosecuting burglars surely qualifies as a compelling state interest, and although not everyone agrees that the interest in prosecuting drug offenders is compelling, appropriate deference to the judgments of legislatures and other respected authorities precludes courts from denying that it is." Alschuler, 2002 U Chi Legal F at 183–84 (cited in note 2) (internal citation omitted), relying on *United States v Salerno*, 481 US 739, 749 (1987), which stated in dicta that "the government's interest in preventing crime by arrestees is both legitimate and compelling." Alschuler has the better of the argument.

[185] See, for example, *Gratz v Bollinger*, 539 US 244, 268–75 (2003) (applying strict scrutiny to a University of Michigan admissions policy favoring minority applicants).

[186] In this respect, I agree with Alschuler, 2002 U Chi Legal F at 176–92, and, like Alschuler, disagree with *Oneonta*.

draws a sharp distinction between what is constitutionally permitted and what is, ultimately, the most optimal social policy. It may very well be the case that racial profiling passes constitutional scrutiny and yet is a terrible idea for society.

This proposed approach contrasts with much of the critical commentary, which either implicitly rejects the "narrowly tailored to a compelling state interest" framework in the context of racial profiling or argues that racial profiling could not possibly meet this standard—in other words, that racial profiling is per se a violation of the Fourteenth Amendment. Gross and Barnes, for instance, argue that the consideration of race—solely or in part—*plainly* violates the Equal Protection Clause.[187] They analogize to the death penalty:

> [N]o American court would ever uphold a death sentence under the Equal Protection Clause if the prosecutor admits that she asked for the death penalty in part because of the defendant's race, regardless of any nonracial factors that entered into that decision. . . . *McCleskey*, however troublesome, merely made it difficult to *prove* discrimination in capital charging; it did not reach the absurd conclusion that equal protection is satisfied as long as a black defendant is not plucked at random from the population and executed *solely* because of his race.[188]

Gross and Barnes suggest that the same is true in the racial profiling context. Thus, they argue, "a government decision to take action against a person because of her race is almost impossible to justify."[189] Gross and Barnes also suggest that there is simply no compelling interest, given that the drug interdiction programs on the highway are so ineffectual.[190] Gross and Barnes are joined by other scholars who similarly argue that using race in the decision to search is a per se violation of the Equal Protection Clause.[191]

Though appealing, these arguments are exaggerated. In the first place, the analogy to sentencing someone to death or to greater actual punishment does not hold. All considerations of race will injure some members of a racial group. Affirmative action in higher education, for example, will harm some white applicants who will not be afforded the

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[187] Gross and Barnes, 101 Mich L Rev at 744 (cited in note 2).

[188] Id at 740–41.

[189] Id at 740.

[190] Id at 750–53.

[191] See Rudovsky, 3 U Pa J Const L at 312–13 (cited in note 8) (likening racial profiling to race-sensitive sentencing schemes and concluding that both deny equal protection of the laws); Harris, *Profiles in Injustice* at 12 (cited in note 8) (urging a per se bar); Maclin, 3 Rutgers Race & L Rev at 125–27 (cited in note 8) (same).

opportunity to attend the university of their choice or receive the benefits of the diversity at that university. This represents an injury that is the byproduct of taking race into account.[192] It does not mean, however, that there is no countervailing compelling interest or that a policy will never be narrowly tailored to that interest. The nature of the compelling interest and the analysis of narrow tailoring will depend on the amount of harm produced: race-sensitive death sentences would certainly violate the requirement that the policy be *narrowly tailored* to the law enforcement interest; searching more minority motorists may not violate the requirement, especially if there is no ratchet effect.

Alschuler advances a more nuanced argument, but one that also is ultimately unpersuasive. Alschuler argues that "the demand for a 'compelling governmental interest' in all cases of racial classification is misguided. This standard requires too little justification for some racial classifications and too much for others."[193] As a result, Alschuler proposes that courts strengthen the standard in some cases with additional considerations, and relax it in others. Courts should relax the standard in cases of "unobtrusive investigations":

> For example, following an anonymous threat to avenge Vicki Weaver by bombing a specified federal building on the anniversary of Ruby Ridge, law enforcement officers near the building should be allowed to watch whites more closely than blacks. Recognizing the legitimacy of taking race into account in some investigations might indeed have a "spill-over" effect, but this effect would not be regrettable.[194]

Courts should strengthen the standard in other cases. Here, Alschuler posits the example of the young African-American male in Pothole, a hypothetical inner-city neighborhood, in which reliable social science evidence establishes that an absolute majority of the young African-American men carry concealed knives, and that white youths commit this crime at a considerably lower rate.[195] Alschuler

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[192] To be sure, the impact on the white students denied admission can be recast as no injury at all if we question the concept of merit, desert, and entitlement. But these are semantic issues. From the perspective of the denied white students, they have suffered an injury that they would not have experienced without race-based admissions.

[193] Alschuler, 2002 U Chi Legal F at 187 (cited in note 2). See also id at 221 ("In the end, the talismans 'compelling governmental interest' and 'narrowly tailored measure' may not notably constrain decision. If the constraint provided by these words is not illusory, however, it is misguided.").

[194] Id at 187 (internal citations omitted).

[195] Id at 169.

suggests in the Pothole hypothetical that the constitutional standard should be strengthened. The stops of young African-American men, Alschuler contends, would neither violate the Fourth Amendment standard since the odds are better than 50 percent, nor the Equal Protection Clause since the stops are tightly fitted to the compelling interest of removing weapons from the streets. Yet, Alschuler argues, we should demand more: "[C]oncern for distributive justice should not vanish altogether whenever an interest labeled 'compelling' and a suitable means-end fit appear."[196] So, Alschuler concludes, "Proclaiming the government's interest in fighting crime 'compelling' should not validate every crime-fighting measure likely to prove effective."[197]

The problem is deciding when to relax or strengthen the constitutional scrutiny. Is it based on particular racial sensitivities? The Ruby Ridge hypothetical, for example, is provocative because it selects on whiteness in the context of a morally offensive crime, namely domestic terrorist activities that likely will result in the death of innocent children in federal day care centers. But it involves a tightness of fit between race and offense that makes it unique. Randy Weaver—Vicki Weaver's husband and the target of the FBI operation—was a white supremacist. Though there may be some, there is likely not an abundance of African-American white supremacists. Accordingly, it is fair to assume, the probability is high—very high—that an operation to avenge Vicki Weaver would be carried out by white persons. This Ruby Ridge hypothetical differs greatly from *Oneonta*. Whereas in *Oneonta*, one might fear a possible eyewitness misidentification or, possibly, racial fabrication (à la Charles Stuart and Susan Smith), the Ruby Ridge hypothetical features a far greater tightness of fit with race. In effect, these examples significantly vary the probabilities associated with the racial classification. It is more certain that the potential offender in the Ruby Ridge hypothetical will be white, and there is every reason to believe that the use of race here is more likely to satisfy the narrow conditions that make racial profiling acceptable.

As for the Pothole hypothetical, if it is indeed true that more than 50 percent of African-American male youths carry concealed knives but that far fewer white male youths do so, then race is a significant predictor of knife-carrying among young men, holding constant youth and gender. If we, as a society, believe that knife-carrying is a serious crime, and the three narrow conditions are satisfied, then using race

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[196] Id at 220.
[197] Id at 221.

may be narrowly tailored to a compelling governmental interest and thus constitutional.

This is precisely the line that separates constitutional adjudication from social theory. The use of race in Pothole, if it satisfies all three conditions, may be constitutional, and yet, from a social and political perspective, completely destructive. So long as the courts accept the traditional law enforcement interest in fighting crime as a compelling governmental interest, there is no constitutional problem with racial profiling if the three narrow conditions obtain.

In sum, the use of race in policing may be a constitutionally acceptable—though not necessarily socially desirable—practice under the three narrow conditions just discussed. If the police are disproportionately searching minority motorists, then the police must bear the burden of establishing that racial profiling advances these interests. The simple fact is that race is a protected category and using race requires an evidentiary showing. It requires that the government shoulder a responsibility. To satisfy their burden, the police would need to offer reliable measures of certain key quantities of interest—comparative elasticity, offending, and selectivity—and reliable proof concerning the three narrow conditions. Given that no state or federal agency has yet attempted to explain or successfully explained the disproportionate searches of African-American and Hispanic motorists in the jurisdictions where the new data reveal disparities, a reviewing court should find the statistical evidence of racial profiling on the highways to be sufficient evidence of unconstitutional police practices.

IV. ASSESSING THE EFFECTS OF RACIAL PROFILING

The key questions, then, for purposes of *both* the empirical and constitutional analyses, revolve around the three narrow conditions. They are, to repeat, (1) whether racial profiling likely reduces the amount of profiled crime, (2) while maintaining or increasing the efficient allocation of police resources, (3) without producing a ratchet effect on the profiled population. Clearly, the new data on police searches from across the country do not provide reliable observations on the key quantities of interest necessary to resolve whether the three conditions obtain, specifically the comparative elasticities and natural offending rates within different racial groups. As a result, the new data need to be supplemented. Nevertheless, we can begin to make reasonable conjectures based on the best available evidence and conservative assumptions about elasticities and offending rates.

A.   The Elasticity of Offending to Policing

The elasticity of offending to policing is the product of at least two major mechanisms: deterrence and incapacitation. Increased policing may deter some motorists from carrying drugs on their person or in their cars when they are on the road out of fear of being searched. Incapacitation, in the case of highway searches, would most likely be a function of cherry-picking. If the police select motorists based on multiple factors (tinted windows, marijuana stickers, etc.), the hit rate will be high. As the police search more motorists, however, they must relax selectivity; thus the hit rate will fall precisely due to the reduced selectivity. Here, the lower offending is not the product of a rational response by motorists, but a cherry-picking effect.

The cherry-picking effect is likely to be negligible. The data from the Indianapolis roadblock searches—which netted drug possession in 4.7 percent of the total number of stops[198]—suggest that there is unlikely to be much incapacitation. The police in Washington State, for instance, searched only 3.5 percent of the cars stopped, for a total of only 23,393 searches for the period March 2002 through October 2002[199]—which is, one can only assume, infinitesimal as compared to the number of motorists on the Washington state highways during the period. As a result, most of the elasticity, if any, will relate to rational choice deterrence.

The deterrence effect is difficult to measure. Most research on deterrence has been conducted in areas where there is likely an incapacitation effect, and researchers as yet cannot properly distinguish deterrence from incapacitation. The National Academy of Sciences examined the problem of measuring deterrence in 1978, with inconclusive results: "[B]ecause the potential sources of error in the estimates of the deterrent effect of these sanctions are so basic and the results sufficiently divergent, no sound, empirically based conclusions can be drawn about the existence of the effect, and certainly not about its magnitude."[200] Little progress has been made since then. As economist

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[198]   See *Edmond*, 531 US at 34–35.

[199]   See Pickerill, et al, *Search and Seizure* at 20 (cited in note 27).

[200]   Panel on Research on Deterrent and Incapacitative Effects, *Report of the Panel*, in Alfred Blumstein, Jacqueline Cohen, and Daniel Nagin, eds, *Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates* 1, 42 (National Academy of Sciences 1978). See also Daniel Nagin, *General Deterrence: A Review of the Empirical Evidence*, in Blumstein, Cohen, and Nagin, eds, *Deterrence and Incapacitation* 95, 135 (deeming current empirical evidence insufficient to confirm the existence of a deterrent effect and "woefully inadequate" for estimating its magnitude). See generally William Spelman, *The Limited Importance of Prison Expansion*, in Alfred Blumstein and Joel Wallman, eds, *The Crime Drop in America* 97 (Cam-

Steven Levitt wrote in 1998, "few of the[] empirical studies [regarding deterrence of adults] have any power to distinguish deterrence from incapacitation and therefore provide only an indirect test of the economic model of crime."[201]

More specifically, few studies address the elasticity of drug consumption to price or policing. Price elasticities have not been empirically estimated for marijuana, cocaine, or heroin.[202] As a result, the literature is all over the place on elasticities. Stephen Schulhofer, for example, writes that "[a]vailable estimates nearly all find modest to substantial inelasticity in the overall demand for heroin and cocaine, especially in the short run";[203] yet the study that Schulhofer refers to, authored by Peter Reuter and Mark Kleiman, assumes that "the aggregate demand for heroin may have quite a high elasticity."[204] Reuter and Kleiman argue that it is fair to assume that "the elasticity of demand is moderately high for heroin, a little lower for cocaine, and quite low for marijuana."[205] The inelasticity may partly explain, in their words, the "apparent lack of response of cocaine and marijuana consumption to the increased federal enforcement effort."[206] According to a 1972 study, the demand for marijuana among full-time college students at UCLA is relatively elastic: a 1 percent price increase causes a decrease as great as 1.5 percent in consumption.[207] Schulhofer suggests, however, that "some estimates find that marijuana demand—largely derived from non-addict, recreational users—is also inelastic, possibly because marijuana expenditures, even at currently inflated prices, remain a small part of the user's income."[208] Given the lack of research in this area, it is difficult to come to firm conclusions.

Another problem is determining the *relative* or *comparative* elasticities as between different racial groups. Do minority and white motorists have similar or different elasticities of offending to policing?

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bridge 2000) (reviewing the literature on the deterrence hypothesis and noting the studies' inability to separate deterrence from incapacitation or rehabilitation).

[201] Steven D. Levitt, *Juvenile Crime and Punishment*, 106 J Polit Econ 1156, 1158 n 2 (1998).

[202] See Peter Reuter and Mark A.R. Kleiman, *Risks and Prices: An Economic Analysis of Drug Enforcement*, in Michael Tonry and Norval Morris, eds, 7 *Crime and Justice: An Annual Review of Research* 289, 299 (1986).

[203] Stephen J. Schulhofer, *Solving the Drug Enforcement Dilemma: Lessons from Economics*, 1994 U Chi Legal F 207, 223.

[204] Reuter and Kleiman, *Risks and Prices* at 300 (cited in note 202), cited in Schulhofer, 1994 U Chi Legal F at 223 n 51 (cited in note 203).

[205] Reuter and Kleiman, *Risks and Prices* at 300.

[206] Id at 290.

[207] Schulhofer, 1994 U Chi Legal F at 223 n 50, citing Charles T. Nisbet and Firouz Vakil, *Some Estimates of Price and Expenditure Elasticities among UCLA Students*, 54 Rev Econ & Stat 473, 474–75 (1972).

[208] Schulhofer, 1994 U Chi Legal F at 223.

There are reasons to suspect that they may be different. As noted earlier, elasticity will depend on the existence of legitimate work alternatives and there may be cause to believe that minority motorists as a group have lower job opportunities.[209]

Another issue relates to the perception among minority motorists of the police and the criminal justice system. As Tracey Meares explains, "legitimacy matters more to compliance [with the law] than [do] instrumental factors, such as sanctions imposed by authorities on individuals who fail to follow the law or private rules."[210] Tom Tyler's research on legitimacy and obedience to the law suggests that disproportionate searches of minority motorists may take a toll on minorities' perception of the overall fairness of the system, which might in turn lead to *more* rather than less offending. If minorities believe that they are going to be harassed by the police or supervised regardless of what they do, minority motorists may lose faith in the system and ultimately become less law abiding.[211] This mechanism could produce different rates of elasticity as between racial groups, as well as an upward sloping offending curve at the tail end for minority motorists.

The bottom line on the issue of comparative elasticities is that there is a paucity of good evidence one way or the other. As Nicola Persico observes, there is practically no literature on the relative elasticity of different groups.[212] If forced to speculate, the most reasonable and conservative assumption would be relatively low elasticity across the board, with slightly lower elasticity for minority motorists. Given that most of the successful searches for drug contraband on the highway involve quantities of marijuana that reflect at most personal use —68 percent in Maryland, for example[213]—and that the elasticity of marijuana is either low or average, it seems fair to assume conservatively

[209]   Persico, 92 Am Econ Rev at 1474–75 (cited in note 3).

[210]   Tracey L. Meares, *Norms, Legitimacy and Law Enforcement*, 79 Or L Rev 391, 400 (2000).

[211]   See generally Tom R. Tyler, *Why People Obey the Law* (Yale 1990); Tom R. Tyler, *Trust and Democratic Governance*, in Valerie Braithwaite and Margaret Levi, eds, *Trust and Governance* 269 (Sage 1998) (explaining that legitimacy stems from trust relations, which turn on expectations of reciprocity and perceived status as inferred from treatment by group authorities); Tom R. Tyler and Yuen J. Huo, *Trust in the Law: Encouraging Public Cooperation with the Police and the Courts* (Sage 2002) (exploring the empirical basis and explicating the conceptual structure of the interplay between trust and authority); E. Allan Lind and Tom R. Tyler, *The Social Psychology of Procedural Justice* (Plenum 1988). See also Jim Leitzel, *Race and Policing*, 38 Society 38, 39–40 (Mar/Apr 2001) (attributing the parallel stereotyping of police as racists and minorities as lawbreakers to race-based policing and arguing that the concomitant police/minority hostility undermines efficacious crime control).

[212]   While no studies have been conducted domestically, Avner Bar-Ilan and Bruce Sacerdote found in 2001 that "as the fine is increased for running a red light in Israel, the total decrease in tickets is much larger for Jews than for non-Jews." Persico, 92 Am Econ Rev at 1476.

[213]   Gross and Barnes, 101 Mich L Rev at 697 (cited in note 2).

that overall elasticities are relatively low. Furthermore, African-American motorists probably have lower elasticity than white motorists due to lower employment opportunities and other market alternatives.

B.   The Offending Rate

The term "offending rate" can have several meanings. First, the offending rate could refer to the rate of actual offending in the different racial groups given the present distribution of police searches. This is the "real offending rate." It is calculated by dividing the total number of members of a racial group on the road who are carrying contraband by the total number of persons of that racial group on the road. This is a quantity of interest for which we do not have a good measure.

Second, the offending rate could refer to the actual rate of offending in a racial group *when the police are sampling randomly*—that is, engaged in color-blind policing. This is the "natural offending rate." Now, it is not entirely natural, because if offending is elastic, it will depend on the amount of policing. But it is natural in the sense that, *as between racial groups*, racial profiling has no effect. This definition of offending rate can be measured only under conditions of random policing and random sampling. While hard to measure, it represents the only proper way to obtain a metric that can be used to compare offending among different racial groups.

Under assumptions of elasticity, the "real offending rate" will fluctuate with policing. The "real offending rate," by definition, will be the same as the "natural offending rate" when the police engage in random searches. If the police stop and search more minority motorists, then the "real offending rate" will be smaller than the "natural offending rate" for minority motorists—again, assuming elasticity. Under assumptions of low or no elasticity, policing causes little to no difference in the "real offending rate." It will equal the "natural offending rate" no matter how disproportionate the policing.

In all of this, naturally, the offending rate must be distinguished from the "hit rate"—the rate of successful searches. The two are related since the offending rate feeds the search success rate. However, the hit rate is generally going to be much higher than the offending rate because the police search selectively.

Now, with these definitions in mind, when someone says that "minority motorists have higher offending rates," it must be the case that they are talking about higher *natural* offending rates. Certainly, this is true of economists. The whole idea behind the economic models is that disproportionate searches of minority motorists will, as a result of elasticity, bring down their *real* offending rate to the same level as

that of white motorists. When the hit rates are equal, the real offending rates should be equal as well. Yet even when the *real* rates of offending are the same, the assumption is that minority motorists have higher *natural* rates of offending.[214] Nevertheless, might the offending rates intersect at some point? Perhaps. When someone says, "minority motorists have higher offending rates," it simply is not clear whether they mean "at each and every comparative degree of searching" or only "for the most part." In other words, the natural offending rates could possibly intersect at higher rates of searches. In effect, the natural offending rates could look like either of the following two graphs—or any permutation of these graphs.

GRAPH 7
Consistently Higher Offending among Minority Motorists

X-Axis: Internal Group Search Rate
(Percent of Racial Group Searched)

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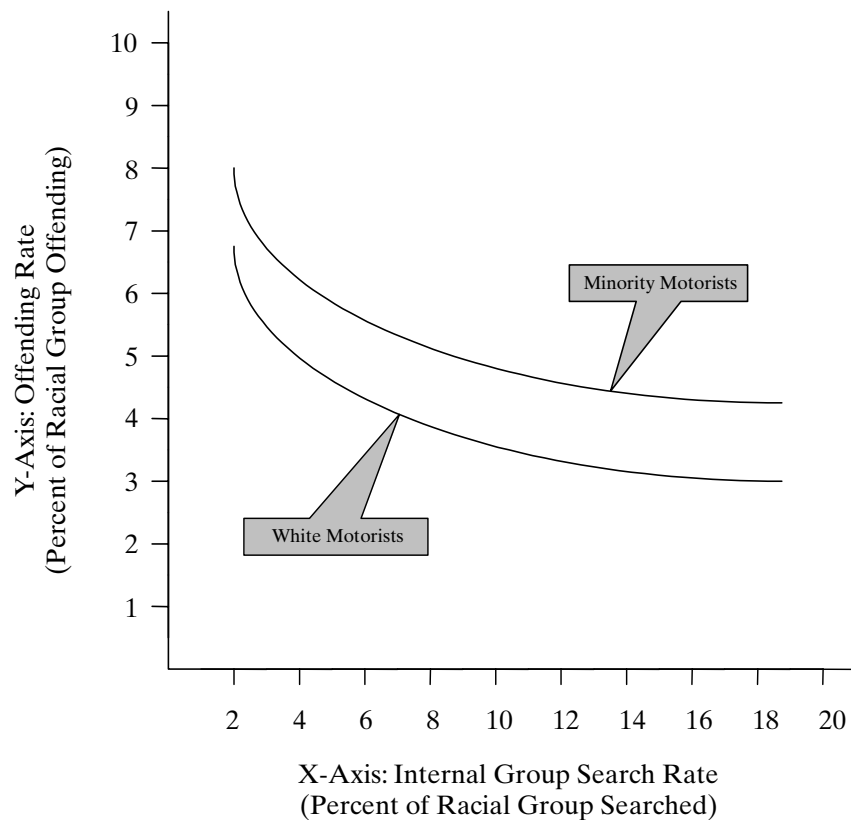
[214] This is what Borooah means when he writes that "[i]f the likelihood of being stopped was the same for blacks and whites, then the likelihood of being arrested after a stop would be substantially higher for blacks." Borooah, 17 Eur J Polit Econ at 35 (cited in note 3).

GRAPH 8
Mostly Higher Offending among Minority Motorists
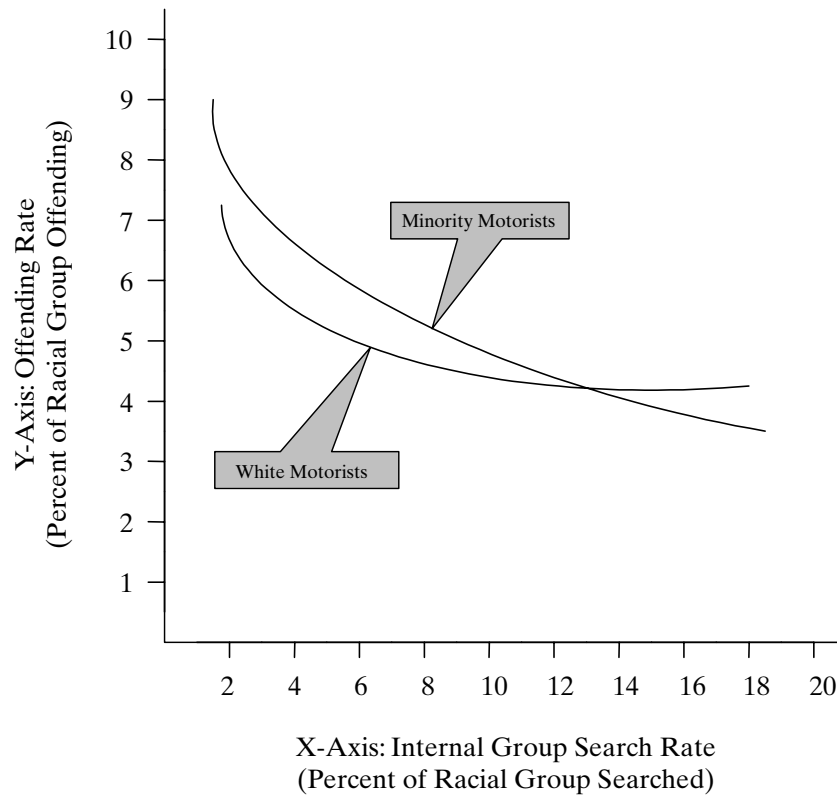
These two graphs depict different elasticities of offending to policing as between members of different racial groups, and they affect whether the natural offending rates are consistently or mostly greater for minority motorists. This in turn will have important implications for whether racial profiling reduces the amount of profiled crime and whether it produces a ratchet effect on the profiled population.

To estimate natural offending rates, it is important to distinguish between types of violators: persons carrying drugs for personal use and drug traffickers. It may also be necessary to explore offending rates by drug given that there may be significant racial differences depending on the specific type of drug being seized on the roads. The place to begin, then, is by estimating natural carrying rates for personal consumption by drug. Here, we can turn to data on personal

consumption rates, including various self-report surveys of students and adults, such as the Monitoring the Future Project, the Youth Risk Behavior Surveillance System, and the National Household Survey on Drug Abuse, public health data on drug abuse hospitalizations, and, very carefully, some criminal justice data.

One caveat deserves mention before interpreting the data. The goal, of course, is to measure natural offending rates. But this will prove impossible if racial profiling is prevalent, which many people believe to be the case. In a Gallup Poll conducted in late 1999, 59 percent of total respondents indicated that they believed that racial profiling by police officers is "widespread."[215] This perception is even more pervasive among African-American respondents: 77 percent believe the practice is widespread.[216] Moreover, among African-American respondents more generally, 42 percent have felt that they were "stopped by the police just because of [their] race or ethnic background."[217]

If there is a generalized perception of racial profiling, then the existing data on drug use and other crimes would already reflect possible elasticity, if any, resulting from racial profiling or the perception thereof, and in this sense, would indicate *real* as opposed to *natural* offending rates. It may be necessary, as a result, to discount existing drug-use offending rates. How this survey data affects offending rates, naturally, depends on whether and to what extent offending is elastic to policing. Assuming elasticity, though, the survey data would suggest that the existing offending rates for members of minority groups may actually reflect slightly *higher* natural offending if the racial profiling is deterring, or slightly *lower* natural offending if the profiling is delegitimizing the criminal justice system.

1.   Carrying drug contraband for personal use.

a) Self-report studies.   The Monitoring the Future Project (MFP) is a cohort self-report study of high school seniors that is conducted by the University of Michigan's Institute for Social Research. The survey data has been collected since 1975 based on a sample of

[215]   Ann L. Pastore and Kathleen Maguire, eds, *Sourcebook of Criminal Justice Statistics* 111 (DOJ 1999) (Table 2.33) (defining racial profiling as occurring when "some police officers stop motorists of certain racial or ethnic groups because the officers believe that these groups are more likely than others to commit certain types of crimes"), citing George Gallup, Jr. and Alec Gallup, 411 Gallup Poll Monthly 23 (Dec 1999).

[216]   Pastore and Maguire, eds, *Sourcebook of Criminal Justice Statistics* at 111 (cited in note 215).

[217]   Id (Table 2.32), citing Gallup and Gallup, 411 Gallup Poll Monthly at 18–19 (cited in note 215).

120 to 146 public and private high schools intended to be representative of the entire United States high school population. Since 1991, the survey has been extended to include eighth and tenth graders, and includes racial and ethnic comparisons. The MFP data reveal that, for almost all drugs, African-American students report lower use than their white and Hispanic cohorts at all grade levels, suggesting that the effect is not due to different drop-out rates as between users and nonusers. By twelfth grade, white students have the highest lifetime, annual, and thirty-day reported use of marijuana, inhalants, hallucinogens, heroin, amphetamines, methamphetamines, sedatives, tranquilizers, and steroids in relation to their African-American and Hispanic counterparts. White twelfth graders also report higher lifetime, annual, and thirty-day use of cocaine, including crack cocaine, than their African-American counterparts.[218] The following table reflects the 2001 and 2002 cohort responses:

TABLE 7
MFP Data for 2001 and 2002: Any Illicit Drug

Grade	8th	10th	12th
Lifetime			
% White	24	45.1	55.2
% Black	24.7	41.5	45.1
% Hispanic	34.7	48.2	53
Annual			
% White	18.3	37.6	43.6
% Black	15.1	28.5	30.4
% Hispanic	24.8	36.2	39
Past 30 Days			
% White	10.6	22.9	27.2
% Black	9.1	16.2	18.2
% Hispanic	15.3	21.4	23.4

The Youth Risk Behavior Surveillance System (YRBSS) is a national survey of high school students (grades nine through twelve) conducted by the Centers for Disease Control and Prevention which tracks high-risk behavior for purposes of studying youth mortality

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[218] Lloyd D. Johnston, Patrick M. O'Malley, and Jerald G. Bachman, 1 *Monitoring the Future National Survey Results on Drug Use, 1975–2002* 113–15 (National Institutes of Health 2003) (Table 4-9) (Publication No 03-5375), online at http://www.monitoringthefuture.org/pubs/ monographs/vol1_2002.pdf (visited Aug 19, 2004).

rates. The study includes reported lifetime ("having ever tried") and current ("used once or more in the last 30 days") use of several drugs, including marijuana, cocaine, inhalants, heroin, methamphetamine, and intravenous drug use. For 2001, white high school students, in contrast to African-American students, report higher use in all available categories. Hispanic students report higher use than white or African-American students of cocaine and lifetime intravenous drug use.[219] The following table reflects the 2001 YRBSS data, including the percentage of students reporting a given behavior and a 95 percent confidence interval:

TABLE 8
YRBSS Data for 2001[220]

	Lifetime Marijuana Use	Current Marijuana Use	Lifetime Cocaine Use	Current Cocaine Use
% White	42.8 (±2.2)	24.4 (±2.0)	9.9 (±1.4)	4.2 (±0.9)
% Black	40.2 (±5.8)	21.8 (±4.1)	2.1 (±0.7)	1.3 (±0.5)
% Hispanic	44.7 (±2.3)	24.6 (±1.6)	14.9 (±3.0)	7.1 (±1.5)

	Lifetime Inhalant Use	Current Inhalant Use	Lifetime Heroin Use	Lifetime Metham-phetamine Use	Lifetime IV Drug Use
% White	16.3 (±2.2)	4.9 (±1.1)	3.3 (±0.5)	11.4 (±2.1)	2.4 (±0.5)
% Black	5.8 (±0.9)	2.6 (±0.7)	1.7 (±0.6)	2.1 (±0.6)	1.6 (±0.7)
% Hispanic	15.2 (±1.8)	5.5 (±1.1)	3.1 (±0.6)	9.1 (±1.9)	2.5 (±0.7)

The National Household Survey on Drug Abuse (NHSDA) is issued by the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. The survey, conducted since 1991, samples household residents and persons in

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[219] Centers for Disease Control and Prevention, 51 *Surveillance Summaries* 10–11 (No SS-4) (June 28, 2002), online at http://www.cdc.gov/mmwr/PDF/ss/ss5104.pdf (visited Aug 19, 2004).
[220] Id at 38, 40, 42 (Tables 20, 22, 24).

noninstitutionalized group quarters over the age of twelve (excluding only homeless persons who do not use shelters, active military personnel, and residents of institutional group quarters, such as jails and hospitals). The NHSDA data place drug use by minorities at approximately the same level or lower than by whites, although usage varies by drug. For 2001, overall thirty-day drug use stood at 7.2, 7.4, and 6.4 percent for whites, African-Americans, and Hispanics, respectively.[221] The following table summarizes yearly data regarding the major drugs for the period 1997–2001:[222]

TABLE 9
Percentages Reporting Lifetime, Past Year,
and Past Month Use among Persons
Age 12 or Older by Demographics

	Any Illicit Drug					Marijuana				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Lifetime										
% White	38.17	38.17	42	41.5	44.5	35.55	35.51	37.1	37	40.1
% Black	31.14	33.16	37.7	35.5	38.6	28.53	30.25	32.1	30.8	33.1
% Hispanic	25.9	26.56	31.2	29.9	31.9	22.33	23.16	25.3	24.2	25.6
Annual										
% White	11.28	10.43	11.4	11.2	12.9	9.09	8.45	8.7	8.6	9.8
% Black	12.12	12.99	13.2	10.9	12.2	9.9	10.61	10	8.6	9.4
% Hispanic	9.87	10.51	11	10.1	11.9	7.46	8.19	7.7	6.6	7.3
Past 30 Days										
% White	6.41	6.09	6.2	6.4	7.2	5.17	4.98	4.7	4.9	5.6
% Black	7.48	8.23	7.5	6.4	7.4	6.1	6.57	5.9	5.2	5.6
% Hispanic	5.86	6.12	6.1	5.3	6.4	4.04	4.47	4.2	3.6	4.2

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[221] U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), 3 *Results from the 2001 National Household Survey on Drug Use and Health: Detailed Tables* (2001) (Table 1.26B), online at http://www.oas.samhsa.gov/nhsda/2k1nhsda/vol3/Sect1v1_PDF_W_26-30.pdf (visited Aug 19, 2004).

[222] Data compiled from SAMHSA surveys from 1997 to 2001, online at http://www.oas.samhsa.gov/WebOnly.htm#NHSDAtabs (visited Aug 19, 2004). No data on crack or heroin use is available for 1999–2001.

	Cocaine					Crack				
	1997	**1998**	**1999**	**2000**	**2001**	**1997**	**1998**	**1999**	**2000**	**2001**
Lifetime										
% White	11.84	11.44	12.5	12.4	13.5	1.87	1.77	—	—	—
% Black	6.48	8.45	9.5	7.4	8.5	3.11	4.2	—	—	—
% Hispanic	7.33	8.86	9.2	8.8	10.8	1.58	1.86	—	—	—
Annual										
% White	1.89	1.7	1.7	1.5	1.9	0.56	0.29	—	—	—
% Black	2.43	1.87	1.5	1.3	1.5	1.41	1.31	—	—	—
% Hispanic	2.01	2.26	2.3	1.7	2.4	0.39	0.7	—	—	—
Past 30 days										
% White	0.59	0.69	0.7	0.5	0.7	0.22	0.09	—	—	—
% Black	1.36	1.26	0.9	0.7	0.8	0.77	0.86	—	—	—
% Hispanic	0.82	1.31	0.8	0.8	1	0.17	0.25	—	—	—

	Hallucinogens					Heroin				
	1997	**1998**	**1999**	**2000**	**2001**	**1997**	**1998**	**1999**	**2000**	**2001**
Lifetime										
% White	11.33	11.49	13.1	13.7	14.7	0.88	1.01	—	—	—
% Black	2.78	4.84	4.9	5	5.1	1.01	1.91	—	—	—
% Hispanic	5.66	5.31	7.8	6.9	8.1	1.36	0.7	—	—	—
Annual										
% White	2.08	1.82	1.6	1.8	2.3	0.2	0.1	—	—	—
% Black	0.74	0.44	0.4	0.6	0.9	0.55	0.24	—	—	—
% Hispanic	1.67	1.55	1.4	1.2	1.6	0.57	0.14	—	—	—
Past 30 days										
% White	0.87	0.77	0.5	0.5	0.6	0.1	0.05	—	—	—
% Black	0.37	0.15	0.1	0.2	0.3	0.43	0.14	—	—	—
% Hispanic	0.48	0.72	0.5	0.3	0.5	0.21	0.08	—	—	—

Overall, these surveys consistently reflect lower or equal reported drug use among African-Americans as compared to whites, and practically equal—though in the case of cocaine higher—use among Hispanics as compared to whites.[223]

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[223] These statistics concern only illegal drugs. If we were to include prescription mood-altering drugs, such as Prozac or Valium, the disproportionality may be far greater. The use of legal mood-altering drugs exploded in the 1990s. As Joseph Kennedy reports: "Between 1987 and 1997, the percentages of outpatient psychotherapy patients using prescribed antidepressant medications, mood stabilizers, and stimulants tripled." Joseph E. Kennedy, *Drug Wars in Black and White*, 66 L & Contemp Probs 153, 173 (Summer 2003). The consumption of these types of drugs tends to correlate with higher-income white consumers, which suggests that, in reality,

Although these general survey studies are widely considered a better measure of the nature and extent of drug use than arrest statistics or ethnographies,[224] their reliability is open to question. Researchers have tested the validity of survey data by comparing self-reported drug use habits with other, presumably more accurate, measures of drug use. The three primary tests are internal validity tests,[225] external validity tests,[226] and biological testing.[227] For our purposes here, the relevant question is whether any evidence shows that self-reporting by members of minority groups is less reliable than by whites.

On the racial comparison question, one recent study found that, while self-reporting grossly underrepresents the prevalence of drug use in a population, underreporting does not correlate with race. The researchers used respondent demographics to create a logistic regression and mined the data for demographic factors correlated with confirmedly honest self-reporting. The researchers found that African-American arrestee crack users were significantly more likely to make

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whites may consume drugs at a far higher rate than minorities. I thank Richard Posner for this insight.

[224] Lana Harrison, *The Validity of Self-Reported Drug Use in Survey Research: An Overview and Critique of Research Methods*, in Lana Harrison and Arthur Hughes, eds, *The Validity of Self-Reported Drug Use: Improving the Accuracy of Survey Estimates* 17, 18 (National Institute on Drug Abuse 1997).

[225] Internal validity is determined by looking at a respondent's answers to related items on a survey. For instance, a survey response would be internally inconsistent if the respondent claimed to have smoked marijuana in the last thirty days in response to one question and in a later question denied ever having used any illicit drugs over the course of his lifetime. On the other hand, researchers interpret the high correlation between estimates of friends' drug use and aggregate self-reported drug use as evidence of the MFP's high internal validity. Both the NHSDA and the MFP demonstrate a high degree of internal consistency. See Harrison, *The Validity of Self-Reported Drug Use in Survey Research* at 19–20 (cited in note 224). See also Lloyd D. Johnston and Patrick M. O'Malley, *The Recanting of Earlier Reported Drug Use by Young Adults*, in Harrison and Hughes, eds, *The Validity of Self-Reported Drug Use* 59 (cited in note 224) (using rates of recanting of earlier reported drug use to estimate self-report validity).

[226] External validity is demonstrated through consistency between self-reports and an official record, polygraph test, or confirmation from interviews of friends or family. Researchers have found that the external validity of self-reported drug use varies with the type of drug involved, but not with the race of the respondents. See Adele V. Harrell, *The Validity of Self-Reported Drug Use Data: The Accuracy of Responses on Confidential Self-Administered Answer Sheets*, in Harrison and Hughes, eds, *The Validity of Self-Reported Drug Use* 37, 46–48, 53.

[227] In biological testing, urine and hair samples are analyzed for evidence of drug metabolites and used to impeach or confirm self-reports. Several of these studies suggest lower than hoped for validity for self-reporting. Royer F. Cook, Alan D. Bernstein, and Christine M. Andrews, *Assessing Drug Use in the Workplace: A Comparison of Self-Report, Urinalysis, and Hair Analysis*, in Harrison and Hughes, eds, *Validity of Self-Reported Drug Use* 247 (estimating actual prevalence to be 51 percent higher than self-reports). Validity varies for different population groups (arrested offenders versus office workers) and also for different types of drugs. See generally Harrison, *The Validity of Self-Reported Drug Use in Survey Research* at 26–28, 31–32 (cited in note 224).

a truthful self-report as to use than either white or Hispanic arrestee crack users.[228] On the other hand, Hispanic arrestee opiate users were significantly more likely to make an accurate self-report about use than African-American arrestee opiate users. No statistically significant race effects were found in the validity of self-reporting on marijuana and amphetamine use. Another study found no race effect when comparing the reliability of self-reported drug use by a former drug treatment sample with their charges upon admission to treatment.[229] Other research, however, has reached the opposite conclusion—namely, that African-Americans are in fact less likely than whites to make true and accurate self-reports about drug use.[230] One such study found, for example, that although the total rate of recanting on previous self-reports of drug use is quite low, African-Americans recant at a significantly higher rate than whites when reporting lifetime use of marijuana and cocaine for the MFP.[231] Clearly, this would be the kind of empirical evidence that we need to explore further when dealing with evidence of offending differentials.[232]

b) Public health data. Given the difficulty of self-report data, another approach is to look at public health data. The Drug Abuse Warning Network (DAWN), for instance, is a government program that collects data on drug-related visits to nonfederal hospital emergency rooms across the nation. The assigned DAWN reporter, usually an emergency room physician, reviews the medical charts of all patients and reports drug-related hospitalizations by drug. The following table represents 2001 DAWN data, with additional percentage calculations:

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[228] Natalie T. Lu, Bruce G. Taylor, and K. Jack Riley, *The Validity of Adult Arrestee Self-reports of Crack Cocaine Use*, 27 Am J Drug & Alcohol Abuse 399, 414 (2001).

[229] Harrell, *The Validity of Self-Reported Drug Use Data* at 53 (cited in note 226).

[230] See, for example, Thomas A. Gray and Eric D. Wish, *Correlates of Underreporting Recent Drug Use by Female Arrestees*, 29 J Drug Issues 91, 100–01 (1999) ("The odds of self-reporting recent cocaine use by whites were almost twice the odds of nonwhites."); Michael Fendrich and Yanchun Xu, *The Validity of Drug Use Reports from Juvenile Arrestees*, 29 Intl J Addictions 971, 977–82 (1994); Russel Falck, et al, *The Validity of Injection Drug Users Self-Reported Use of Opiates and Cocaine*, 22 J Drug Issues 823 (1992); W.F. Page, et al, *Urinalysis Screened vs Verbally Reported Drug Use: The Identification of Discrepant Groups*, 12 Intl J Addictions 439, 445–49 (1977).

[231] See Johnston and O'Malley, *The Recanting of Earlier Reported Drug Use* at 72–74 (cited in note 225).

[232] There is also the question of whether school and home survey data on drug consumption are reliable given that they may overlook homeless drug users and school dropouts. However, roadway searches probably target persons with cars and more than subsistence income. Thanks to John Pfaff for this point.

TABLE 10
2001 DAWN Emergency Department (ED) Data for Selected Drugs[233]

		2001	**Percent**
ED drug episode	White Black Hispanic Other Race unknown	351,245 139,375 79,517 5,209 63,138	55.01% 21.83% 12.45%
ED marijuana mention	White Black Hispanic Other Race unknown	57,836 29,455 12,877 875 9,470	52.33% 26.65% 11.65%
ED cocaine mention	White Black Hispanic Other Race unknown	71,531 80,022 25,117 720 15,644	37.06% 41.45% 13.01%
ED heroin mention	White Black Hispanic Other Race unknown	40,104 28,706 14,075 381 9,798	48.39% 34.63% 16.98%
ED amphetamines mention	White Black Hispanic Other Race unknown	11,720 1,271 2,495 194 2,874	63.17% 6.85% 13.45%

These data suggest disproportionately higher offending among African-Americans and Hispanics for most drugs. Here again, though, there are important differences by drug, and so it would be important to specify offending rate by drug type for the particular drugs that are being interdicted on the highway in the specific geographic locations where racial profiling is taking place. And here too, there are questions about the validity of any inferences concerning real drug use.

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[233] U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, *Detailed Emergency Department Tables from the Drug Abuse Warning Network 2001* (2002) (Table 3.4), online at http://dawninfo.samhsa.gov/pubs_94_02/edpubs/ 2001detailed/files/DetEDtext.pdf (visited Aug 19, 2004).

Drug-related emergency room visits may correlate with socioeconomic status more directly than race. African-American and Hispanic users may have less access to private doctors and individualized health care, and therefore may rely more on emergency room medical assistance. Naturally, this correlation would skew the data.

    c) Search data. There are significant questions about the reliability of search, arrest, and other criminal justice data given that they are the product of racially disproportionate policing and thus fail to reflect natural offending rates. We must be very careful with any of this data.

    Despite the distortions in the data, the *internal* rate (within each racial group) of persons carrying drugs can be compared. The Maryland data may be useful here. In the I-95 corridor, the police conducted 2,146 searches from 1995 to 2000. Of these searches, 33.3 percent involved white motorists (about 715), 59.7 percent involved African-American motorists (about 1,281), and 5.9 percent involved Hispanic motorists (about 127). In other words, setting aside the small number of Hispanic motorists searched because the sample is too small and underrepresentative, the police practices provide a sample of about 715 white motorists and about 1,281 African-American motorists. Gross and Barnes break down those searches by race. What their tables reveal is that the searches netted a greater proportion of persons carrying drugs for personal use among white motorists. While African-American motorists had a lower internal rate of carrying for personal use, they had a higher rate of carrying evincing drug trafficking or dealing (which I discuss in greater length below). These data tend to corroborate the self-report surveys in revealing evidence of slightly lower personal drug use among African-Americans than among white motorists. Their tables reveal the following internal rates of offending:

TABLE 11
Internal Rates of Offending from Maryland Search Data[234]

	White Motorists	African-American Motorists	All Searches
No Drugs	59.7%	62.2%	62.7%
Any Drugs	40.3%	37.8%	37.3%
Trace or Personal Use Quantities of Drugs	36.2%	22.4%	26.1%
Small, Medium, or Large Dealer Quantities of Drugs	4.2%	15.4%	11.2%

2.   Drug trafficking and drug couriers.

The racial breakdown of drug traffickers, drug sellers, and drug couriers is harder to gauge. Practically all of the data stem from law enforcement operations and are therefore potentially biased by the disproportionate attention to minority trafficking. In addition, there is every reason here to be even more skeptical of self-report data—the little that there is.

Human Rights Watch reports that the NHSDA, discussed earlier, contained questions about drug selling during the period 1991–1993. According to Human Rights Watch: "On average over the three year period, blacks were 16 percent of admitted sellers and whites were 82 percent."[235] Given that African-Americans represented 11.5 percent of the United States civilian, non-institutionalized population in 1992,[236] the NHSDA reflects higher drug selling among African-Americans. Naturally, all the same questions about the reliability of self-report studies apply, if anything even more saliently. The more serious the activity surveyed, the less reliable the data;[237] however, there is debate, again, over the comparative unreliability by race.

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[234]   Gross and Barnes, 101 Mich L Rev at 703 (Table 17) (cited in note 2).

[235]   Human Rights Watch, *Punishment and Prejudice: Racial Disparities in the War on Drugs* ch 7 (May 2000), online at http://www.hrw.org/reports/2000/usa (visited Aug 19, 2004).

[236]   U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, *National Household Survey on Drug Abuse: Main Findings 1992* 17 (1995) (Table 1.3).

[237]   See Harrison, *The Validity of Self-Reported Drug Use in Survey Research* at 29 (cited in note 224) (observing that self-report studies are more accurate for the least stigmatized drugs and least accurate for the most stigmatized drugs).

One of the very few other data points, then, is the search data itself. As Table 11 suggests, the internal rate of drug trafficking is higher within the sample of African-American motorist searches: 15.4 percent of African-American motorists searched are transporting quantities of drugs that suggest dealing, in contrast to 4.2 percent of white motorists. The difference is actually most pronounced among medium- and large-dealer quantities, where 12.2 percent of African-American versus 2.4 percent of white motorists are transporting contraband.[238] As Gross and Barnes explain:

> Black motorists who were searched on I-95 north of Baltimore were more than three-and-a-half times as likely as whites to be dealers, and five times as likely to be medium or large dealers. . . . Of the whites who were found with any drugs on I-95, 10% were dealers and 6% were medium or large dealers; of the blacks with drugs, 40% were dealers and 32% were medium and large dealers.[239]

Clearly, this is an area for more sustained research. We may speculate, however, that African-Americans have a higher offending rate than whites for drug selling and dealing—though how much higher is not clear—but similar offending for personal use, resulting in a slightly higher offending rate overall.

C. The Likely Implications of Racial Profiling

1. The long-term effect on the profiled crime.

Based on reasonably conservative assumptions—first, relatively low elasticity of offending to policing; second, slightly lower elasticity of offending to policing for minority motorists; and third, slightly higher natural total offending rates among minority motorists—it is fair to infer that racial profiling on the highways may increase the total number of persons transporting drug contraband on the roads. From equation (6) in Part I.B.1, we know, assuming minority motorists represent 20 percent of the motorist population and have lower elasticity, that racial profiling will increase crime if the ratio of white elasticity to minority elasticity is greater than the ratio of minority offending to white offending—in other words if the elasticity differential is greater than the offending differential. Given the paucity of evidence on both relative elasticities and offending, the conclusion is tentative, but under these assumptions, racial profiling probably increases the

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[238] Gross and Barnes, 101 Mich L Rev at 703 (cited in note 2).

[239] Id.

profiled crime. This certainly seems to be the case in Maryland based on the little data we have.[240] Naturally, it would be crucial to do a more nuanced analysis with better data, exploring the different types of drugs being transported in the particular geographic location. It would also be important to develop better data on comparative elasticity and offending.

2.   The narrow efficiency of searches.

Given that the police in most jurisdictions are stopping and searching minority motorists disproportionately in relation to their representation in the general population, it is fair to suspect that the police are more discriminating in their stops and searches of white than minority motorists. They likely use additional factors to narrow down which white motorists they stop or search. If so, and if the police are successful in doing so, then the selectiveness differential probably masks higher real offending rates among minorities. Thus, the consistent findings of equal to lower hit rates for minority motorists may mean equal to higher offending rates for comparably situated minority motorists. It is, as a result, impossible properly to interpret the hit rates and reach any reliable conclusion as to the narrow efficiency of highway searches. Again, this is an area for further research.

3.   The ratchet effect.

Racial profiling on the highways likely has a significant ratchet effect on the profiled population. From the earlier analysis of the basic racial profiling models represented in Graphs 4, 5, and 6, it is clear that the police may have to subject a disproportionate number of minority motorists to criminal justice supervision to equalize offending rates. In all likelihood, this is exactly what is happening in Maryland. It is hard to imagine, even if we assume that minority motorists are offending at a higher natural rate than white motorists, that minority offenders represent 60 percent of all offenders under natural conditions of offending (that is, if the police are engaged in color-blind policing). After all, 84 percent of motorists in Maryland found with drugs had trace or personal-use amounts, and 68 percent had trace or personal-use quantities of marijuana only; and the survey data seem to suggest that personal consumption of drugs is relatively even across racial lines. Even if we assume that the other 16 percent of seizures—those seizures involving large hauls of drugs—consist *entirely* of minority

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[240]   See note 61.

motorists,[241] then minority offenders would still represent only approximately 31 percent of offenders.[242]

The most likely explanation for the disjunction between this hypothesized offending differential in Maryland (30/70) and the actual apprehension differential under present conditions of racial profiling (60/40) is that, continuing to assume elasticity, it takes a lot of profiling to bring the hit rates down to the same level. The result is a significant imbalance in negative contact with the police—whether the seizure of drug contraband results in a fine, an arrest, probation, or imprisonment. This represents a ratchet effect that has a significant cost to minority families and communities.

V. Rethinking Criminal Profiling

Racial profiling on the highways may increase the overall number of persons transporting drugs on the highways and likely produces a ratchet effect on the minority motorist population. The real problems with racial profiling, then, are not so much problems about *race*, as they are about *criminal profiling*. They are problems that may plague profiling schemes in general, whether based on race or on gender, wealth, class, status, or physical demeanor. In this sense, the fact that racial profiling on the highway is "almost uniformly condemned"[243] is probably the right result, but for the wrong reason. The idea that "it is plainly unconstitutional to use race as a criterion for choosing who to stop or search"[244] is an exaggeration. So too is the political rhetoric surrounding the use of race in policing, whether from the right or from the left. This includes President George W. Bush's statement denouncing racial profiling on the grounds that "[a]ll of our citizens are created equal and must be treated equally,"[245] and FBI Director Robert Mueller's statement that "[r]acial profiling is abhorrent to the Constitution,"[246] as well as Justices William Brennan and Thurgood Marshall's declaration: "That law in this country should tolerate use of one's an-

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[241] Note that this would be an unreasonably conservative assumption. A more reasonable assumption from the Maryland data is that approximately 84 percent of the dealer population is African-American. See Gross and Barnes, 101 Mich L Rev at 703 (cited in note 2).

[242] Assuming that 18 percent of the motorists are minorities, if minorities and whites offend at the same rate with regard to 84 percent of the offenses (personal use seizures) and minorities comprise all of the other 16 percent of the offenders, then minority motorists represent 31.12 percent of all offenders. (The equation is (18/100 * 84/100) + (16/100 * 1) = .1512 + .16 = .3112).

[243] Gross and Livingston, 102 Colum L Rev at 1431 (cited in note 8).

[244] Gross and Barnes, 101 Mich L Rev at 744.

[245] Quoted in Mosher, Miethe, and Phillips, *Mismeasure of Crime* at 183 (cited in note 1) (Statement to Joint Session of Congress on February 27, 2001).

[246] Alschuler, 2002 U Chi Legal F at 163 n 3 (cited in note 2), citing 147 Cong Rec S 8683 (Aug 2, 2001).

cestry as probative of possible criminal conduct is repugnant under any circumstances."[247]

Though noble, these rhetorical statements are simply wrong. If we accept that the government has a compelling interest in combating crime and that the legislature has properly set forth prohibited conduct in the penal code, there is no valid *constitutional* barrier to using race in policing if the three narrow conditions are satisfied. Race in the policing context should not be treated differently from race in other constitutional contexts. Closing the door to racial profiling as a *per se* constitutional matter would also prohibit using race to remedy discrimination in criminal justice. Just as there may be a compelling law enforcement reason to engage in racial profiling, there may also be a compelling governmental interest in reducing the minority representation in the carceral population. If so, the argument here too should be framed in terms of affirmative action, not in terms of barring the consideration of race in the criminal justice context.

In the end, the overwhelming opposition to racial profiling is a beacon that should shed light on the larger issue of criminal profiling more generally. This is counterintuitive because most people in the criminal justice system endorse criminal profiling as a law enforcement tool. Practically no one questions the practice. In fact, even those most adamantly opposed to *racial profiling* laud the larger practice of criminal profiling.[248]

The trouble is, though, that criminal profiling tends to aggravate the prejudices and biases that are built into the penal law. The criminal law is by no means a neutral set of rules. It is a moral and political set of rules that codifies social norms, ethical values, political preferences, and class hierarchies. Criminal enforcement priorities exploit and exaggerate these values and preferences. The decision to expend a lot of law enforcement resources on gun-oriented policing, for instance, involves a tradeoff. It may mean less police presence on university campuses, which may result in higher incidences of sexual assault. It may mean less investment in enforcement of securities regulations and more insider trading. It may mean less attention to identity theft and more cases of credit card fraud. Where the state allocates law enforcement resources reflects not only a moral evaluation of harm and a pragmatic cost-benefit analysis, but also importantly an ideological

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[247] *United States v Martinez-Fuerte*, 428 US 543, 571–72 n 1 (1976) (Brennan dissenting).

[248] Harris, *Profiles in Injustice* at 16 (cited in note 8) ("Profiles enable the police to create portraits of criminals using facts instead of gut instinct or wishful thinking. Profiles can systematically pool collective police experience into information that is comprehensive, solid, and accurate—something much better than . . . simple intuition.").

dimension that has a lot to do with class, power, and politics. As Jack Katz suggests, any group that is the target of criminal law enforcement is, at that point in time, either no longer an elite or in battle with the established powers—or is, as Katz writes more provocatively, "a class engaged in civil war."[249]

Most of the time, our criminal law definitions and law enforcement priorities emphasize the frailties of some and ignore the frailties of others. But human frailty is pretty well distributed across race, class, and social distinctions. If we look carefully, it is even well distributed across gender lines. Domestic murders, for instance, are almost even male-female.[250] Criminal profiling serves only to accentuate the ideological dimension of the criminal law. It hardens the purported race, class, and power relations between certain offenses and certain groups. In this sense, it serves to polarize social and political divisions rather than defuse them. This is, perhaps, acceptable if we think that we focus on pursuing child molesters, terrorists, and serial killers. But the criminal law is by no means limited to these heinous and egregious crimes. Instead, the criminal law preoccupies itself with the gray area—drug use, delinquency, quality-of-life offenses.

Criminal profiling is problematic precisely because it exacerbates the correlation between the profiled crime and the profiled trait, reinforcing the public perception that certain groups are more prone to crime than others. It may be efficient to target resources this way, but it also makes matters seem worse than they really are. If law enforcers profile for adultery among politicians, they are likely to give politicians a bad reputation. If regulators profile for crimes of financial greed among industry leaders, they are likely to aggravate perceptions of capitalist profiteering. If administrators profile for plagiarism among historians, they likely are going to ruin the reputation of history as a discipline. If these profiles are accurate, then there is every reason to perceive politicians as adulterous, industrialists as greedy, and historians as plagiarists. Yet profiling will accentuate these associations. And this becomes particularly problematic when only *certain* offenses are criminalized, targeted, and enforced.

Racial profiling is likely to boost significantly the general perception that minorities are drug users and drug couriers and to distribute unevenly criminal records, corrections, and post-punitive collateral consequences. In this sense, racial profiling is an excellent example of

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[249] Jack Katz, *Seductions of Crime: Moral and Sensual Attractions in Doing Evil* 318–19 (Basic 1988).

[250] Id at 47 (reporting a 1978 study showing that women committed about 40 percent of family homicides).

how criminal profiling accentuates embedded prejudices in the criminal law. But the same problem would attach to any other form of profiling, whether of the wealthy for tax evasion or of single mothers for welfare fraud. The goal of our law enforcement should not be to aggravate our prejudices about human frailty by optimizing on specific traits, but to respond evenly to incidences of crime and thereby distribute the coercive force of the law more evenly across society.

There is an idea shared by most in civil society that the criminal law merely polices the civil boundaries between individuals and is, in this sense, neutral. This is a liberal political theoretic idea attributable to Hobbes and Locke. The idea is that the civil laws serve as "hedges" that keep citizens from interfering with each other and that the criminal law merely polices these hedges. The liberal tradition in the nineteenth century expanded on this insight, helping to define the hedges in terms of harm. The harm principle represented a sustained effort to locate the hedges in a neutral way, acceptable to all. In the twentieth century, conceptions such as the veil of ignorance or neutral principles were introduced to shore up the tattered neutrality of those hedges.

The criminal law, however, does not merely police the civil hedges. The criminal law locates them. It places the hedges, and in the process, distributes wealth, power, and social status. The criminal law and criminal law enforcement are, in this sense, instruments that are deployed by some and experienced by others. It may be hard to avoid this. What can more easily be avoided, though, is allowing a few of us to use criminal profiling as a leveraging mechanism to magnify and accentuate those distortions.

APPENDIX

A. Under Conditions of Equal and Constant Elasticity of
   Offending to Policing

Assuming resource constraint, racial profiling will decrease the profiled crime under conditions of equal and constant elasticity of offending to policing if the minority motorist offending rate is greater than the white motorist offending rate. This can be derived from the definition of elasticity.

For purposes of notation, let $r \in \{M, W\}$ denote the race of the motorists, either minority or white. Let Pop_r denote the representation of each racial group in the total population. Let O_r denote the offending rate of each racial group. Let ΔO_r denote the *absolute value* of the change in the offending rate of the racial group from Time 1 (no racial profiling) to Time 2 (racial profiling). Let I_r denote the internal search group rate for each racial group. Let ΔI_r denote the *absolute value* of the change in the internal search rate for each racial group from Time 1 to Time 2. Let S denote the search rate for the total population.

From the definition of elasticity, if minority and white motorists have the same and constant elasticity, then the following is true:

$$\frac{(\Delta O_M / O_M)}{(\Delta I_M / I_M)} = \frac{(\Delta O_W / O_W)}{(\Delta I_W / I_W)} \tag{A1}$$

Given that, at Time 1, the police are engaged in color-blind policing, the internal group search rates are going to be the same for both racial groups. In other words, we know that:

$$S = I_M = I_W \tag{A2}$$

We also know that the change in internal search rates as between the different racial groups will offset each other since we are assuming a resource constraint such that there are fixed law enforcement resources. This implies that S is a constant: the total number of searches does not vary and the police merely distribute their searches between white and minority motorists. Hence the search rate of minority motorists is related to the search rate of white motorists. We can determine the relationship between the change in the internal search rate for each racial group as follows, given that the Time 1 total search rate will be the same as the Time 2 total search rate:

$$S = Pop_M I_M + Pop_W I_W = Pop_M (I_M + \Delta I_M) + Pop_W (I_W - \Delta I_W) \tag{A3}$$

If we work this through the same way we worked through equation (1) in the text, this implies that:

$$\Delta I_M = \frac{Pop_W}{Pop_M} \Delta I_W \qquad (A4)$$

Given that we are assuming a minority motorist representation of 20 percent, equation (A4) is the same as:

$$\Delta I_M = 4 \Delta I_W \qquad (A5)$$

Using equations (A2) and (A5), we can substitute values for the denominator in equation (A1). Since we know from equation (A2) that I_M equals I_W, and from equation (A5) that the change in I_M is four times the change in I_W, then we know that one denominator in equation (A1) is simply one fourth of the other. Thus, from the definition of elasticity, if minority and white motorists have the same and constant elasticity, then the following is true:

$$\frac{\Delta O_M}{O_M} = 4 \frac{\Delta O_W}{O_W} \qquad (A6)$$

Equation (A6) may be rewritten as follows:

$$\frac{\Delta O_W}{\Delta O_M} = 0.25 \frac{O_W}{O_M} \qquad (A7)$$

We know from equation (3) in text that racial profiling decreases crime only if:

$$0.25 > \frac{\Delta O_W}{\Delta O_M} \qquad (A8)$$

If we substitute from equation (A7), this holds true only if:

$$0.25 > 0.25 \frac{O_W}{O_M} \qquad (A9)$$

To simplify:

$$O_M > O_W \qquad (A10)$$

In other words, racial profiling will decrease crime under these conditions only if the offending rate of minority motorists exceeds that of white motorists.

B. Under Conditions of Lower Elasticity of Offending to Policing for Minority Motorists

Assuming resource constraint and lower elasticity of offending to policing for minority motorists, racial profiling will decrease the profiled crime only under very specific conditions concerning the relationship between elasticities and offending. This relationship can be derived, again, from the definition of elasticity.

If minority motorists have lower elasticity than white motorists, then the following is true:

$$x \frac{(\Delta O_M / O_M)}{(\Delta I_M / I_M)} = \frac{(\Delta O_W / O_W)}{(\Delta I_W / I_W)} \quad \text{where} \quad x > 1 \quad \text{(A11)}$$

If we let E_r denote the elasticity of offending to policing for each racial group, this is equivalent to saying that:

$$x = \frac{E_W}{E_M} \quad \text{(A12)}$$

Using equations (A2) and (A5), we can substitute values for the denominator in equation (A11). Since we know from equation (A2) that I_M equals I_W, and from equation (A5) that the change in I_M is four times the change in I_W, then we know that one denominator in equation (A11) is simply one fourth of the other. Thus, from the definition of elasticity, the following is true:

$$x \frac{\Delta O_M}{O_M} = 4 \frac{\Delta O_W}{O_W} \quad \text{(A13)}$$

If we work this through, equation (A13) is the same as the following:

$$\frac{\Delta O_W}{\Delta O_M} = 0.25 \, x \frac{O_W}{O_M} \quad \text{(A14)}$$

We know from equation (3) in text that racial profiling decreases crime only if:

$$0.25 \; > \; \frac{\Delta O_W}{\Delta O_M} \tag{A15}$$

If we substitute from equation (A14), this holds true only if:

$$0.25 \; > \; 0.25 \, x \frac{O_W}{O_M} \tag{A16}$$

To simplify:

$$O_M \; > \; x \; O_W \tag{A17}$$

In other words, racial profiling will decrease crime under these conditions only if minority motorists' offending exceeds white motorists' offending times their elasticity differential *x*, which from equation (A12) we know is E_W / E_M.

C. Under Conditions of Lower Elasticity of Offending to Policing for White Motorists

Assuming resource constraint and lower elasticity of offending to policing for white motorists, racial profiling will decrease the profiled crime if minority motorists' offending is higher than white motorists' offending. This can be derived, again, from the definition of elasticity.

If white motorists have lower elasticity, then the following is true:

$$\frac{\left(\Delta O_M / O_M\right)}{\left(\Delta I_M / I_M\right)} \; = \; x \frac{\left(\Delta O_W / O_W\right)}{\left(\Delta I_W / I_W\right)} \quad \text{where} \; x \; > \; 1 \tag{A18}$$

Using equations (A2) and (A5), we can substitute values for the denominator in equation (A18). Since we know from equation (A2) that I_M equals I_W, and from equation (A5) that the change in I_M is four times the change in I_W, we also know that one denominator in equation (A18) is simply one fourth of the other. Thus, from the definition of elasticity, the following is true:

$$\frac{\Delta O_M}{O_M} \; = \; 4 \, x \frac{\Delta O_W}{O_W} \tag{A19}$$

To simplify:

$$\frac{\Delta O_W}{\Delta O_M} = \frac{O_W}{4x \ O_M} \tag{A20}$$

We know from equation (3) in the text that racial profiling decreases crime only if:

$$0.25 \ > \ \frac{\Delta O_W}{\Delta O_M} \tag{A21}$$

If we substitute from equation (A20), this holds true only if:

$$0.25 \ > \ \frac{O_W}{4x \ O_M} \tag{A22}$$

To simplify:

$$O_M \ > \ \frac{O_W}{x} \tag{A23}$$

But since x is greater than 1, this is going to be true whenever minority motorists' offending exceeds white motorists' offending. In other words, racial profiling will decrease crime under these conditions if minority motorists' offending is greater than white motorists' offending.