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Statistical Proof of Racial Discrimination in the Use of Peremptory Challenges: The Impact and Promise of the Miller-El Line of Cases As Reflected in the Experience of One Philadelphia Capital Case

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Statistical Proof of Racial Discrimination in the Use of Peremptory Challenges: The Impact and Promise of the *Miller-El* Line of Cases As Reflected in the Experience of One Philadelphia Capital Case

David C. Baldus*, Catherine M. Grosso**, Robert Dunham***, George Woodworth**** & Richard Newell*****

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I. INTRODUCTION

The jurisprudence that has developed in the last twenty-five years under *Batson v. Kentucky* may be fairly described as indeterminate, unprincipled, and generally ineffective. Scholarly literature points to a variety of reasons for this state of affairs. This Article focuses on one source of the problem—the lack of clarity in the law concerning the evidentiary framework (methodology) needed for a reliable analysis of statistical evidence in *Batson* cases. United States Supreme Court decisions beginning with *Miller-El v. Cockrell* (2003) and continuing through *Miller-El v. Dretke* (2005), *Johnson v. California* (2005), and *Snyder v. Louisiana* (2008) clarified a number of issues related to the use of statistical evidence and laid the foundation for the development of a more rigorous and principled methodology for use in

Batson v. Kentucky, 476 U.S. 79 (1986). The problems apply equally to the progeny of Batson, including Georgia v. McCollum, 505 U.S. 42 (1992) (extending Batson to strikes exercised by defense counsel), and J.E.B. v. Alabama ex rel. T.B., 511 U.S. 127 (1994) (extending Batson to gender discrimination). A large body of literature concludes that Batson did not eliminate the discriminatory exercise of peremptory challenges. See, e.g., Shari Seidman Diamond, Leslie Ellis & Elisabeth Schmidt, Realistic Responses to the Limitations of Batson v. Kentucky, 7 CORNELL J.L. & PUB. POL'Y 77, 80-83 (1997) (collecting articles raising this concern); Nancy S. Marder, Beyond Gender: Peremptory Challenges and the Roles of the Jury, 73 TEX. L. REV. 1041, 1122-23 (1995) (noting that prosecutors offer "irrational" reasons to justify discriminatory strikes and judges often accept these reasons); Kenneth J. Melilli, Batson in Practice: What We Have Learned About Batson and Peremptory Challenges, 71 NOTRE DAME L. REV. 447 (1996) (analyzing the implementation of Batson in federal and state courts between 1986 and 1993 and concluding that it had not eliminated discrimination); Mary R. Rose, A Voir Dire of Voir Dire: Listening to Jurors' Views Regarding the Peremptory Challenge, 78 CHI.-KENT L. REV. 1061, 1062-65 (2003) (discussing articles that report continuing discrimination); Samuel R. Sommers & Michael I. Norton, Race-Based Judgments, Race-Neutral Justifications: Experimental Examination of Peremptory Use and the Batson Challenge Procedure, 31 LAW & HUM. BEHAV. 261 (2007) (reporting the findings of experimental research testing and challenging the presumptions underlying *Batson*).

In his concurrence to Batson, Justice Marshall pointed out that Batson claims would be difficult to state and equally difficult to evaluate. Batson, 476 U.S. at 105-06 (Marshall, J., concurring). Scholars also have noted that the Court's failure to provide guidance for the judicial review of Batson claims leads to inconsistent standards across jurisdictions. See, e.g., Sheri Lynn Johnson, Batson Ethics for Prosecutors and Trial Court Judges, 73 CHI.-KENT L. REV. 475, 476 (1998) (noting that the Court was "short on the details of proper behavior and ambiguous with respect to the nature of the wrong it was redressing"); Nancy S. Marder, Justice Stevens, the Peremptory Challenge, and the Jury, 74 FORDHAM L. REV. 1683, 1707-08 (2006) (noting the problem of inconsistencies across jurisdictions); Charles J. Ogletree, Just Say No!: A Proposal To Eliminate Racially Discriminatory Uses of Peremptory Challenges, 31 AM. CRIM. L. REV. 1099, 1105-10 (1994) (providing examples of lower courts applying Batson inconsistently); Brian J. Serr & Mark Maney, Racism, Peremptory Challenges, and the Democratic Jury: The Jurisprudence of a Delicate Balance, 79 J. CRIM. L. & CRIMINOLOGY 1, 27–28 (1988). Others have noted that the challenge of reviewing race-neutral reasons effectively has led to a "charade" where meeting the burden, and defeating the Batson claim, requires little effort. Marder, supra, at 1706 ("Batson is so easy to circumvent that it allows a charade in the courtroom."); see also Jere W. Morehead, When a Peremptory Challenge Is No Longer Peremptory: Batson's Unfortunate Failure to Eradicate Invidious Discrimination from Jury Selection, 43 DEPAUL L. REV. 625, 634 (1994) (explaining that evidentiary requirements protect most attorneys from a finding of unacceptable peremptory challenges).

Batson cases.³ In that regard, this line of cases may be usefully compared to the Supreme Court's Title VII decisions in the 1970s, which laid the foundation for the development of an exhaustive body of evidentiary and methodological law that informs the use of statistical evidence in employment cases.⁴

In this Article, we first consider the issues, rulings, and likely impact of the *Miller-El* line of cases. We then discuss research developed in connection with a recent capital case with complicated *Batson* issues to both illustrate and build on that foundation in an effort to provide useful guidance for future policymakers and litigants.⁵

In the next part, Part II, we provide background information on *Batson* and the evidentiary issues this paper seeks to address. Part III then introduces the Supreme Court cases that form the centerpiece of our analysis and considers, again, the contribution these cases make to the appropriate use of statistical analysis in *Batson* claims. This part presents a preliminary evaluation of how some courts have applied the Supreme Court's guidance in these areas. Part IV focuses on the case of *Commonwealth v. Harold Wilson*, a capital case from Pennsylvania in which the defendant successfully litigated a complex *Batson* claim using statistical evidence. The evidence presented in this case can serve as a model of how to present statistical evidence of discrimination in jury selection. The conclusion appears in Part V.

^{3.} Snyder v. Louisiana, 552 U.S. 472 (2008); Miller-El v. Dretke (*Miller-El II*), 545 U.S. 231 (2005); Johnson v. California, 545 U.S. 162 (2005); Miller-El v. Cockrell (*Miller-El I*), 537 U.S. 322 (2003).

^{4.} Bazemore v. Friday, 478 U.S. 385, 400–01 (1986) (per curiam) (Brennan, J., concurring) (refining the requirements for admitting results of regression analyses as evidence of discrimination); Hazelwood Sch. Dist. v. United States, 433 U.S. 299, 309–13 (1977) (providing guidance on the use of statistical evidence in proving a pattern or practice of employment discrimination); Int'l Bhd. of Teamsters v. United States, 431 U.S. 324, 339 (1977) ("[O]ur cases make it unmistakably clear that '[s]tatistical analyses have served and will continue to serve an important role' in cases in which the existence of discrimination is a disputed issue. We have repeatedly approved the use of statistical proof, where it reached proportions comparable to those in this case, to establish a prima facie case of racial discrimination in jury selection cases[.] Statistics are equally competent in proving employment discrimination." (first alteration in original) (citations omitted) (quoting Mayor of Phila. v. Educ. Equality League, 415 U.S. 605, 620 (1974))).

^{5.} We note the decisions of the Louisville courts to prepare and maintain complete documentation on the exercise of peremptory challenges and other aspects of jury selection, Melynda J. Price, *Policing the Borders of Democracy: The Continuing Role of Batson in Protecting the Citizenship Rights of the Excluded*, 97 IOWA L. REV. 1635 (2012), and the recommendation of Alafair Burke in her paper in this symposium issue, Alafair S. Burke, *Prosecutors and Peremptories*, 97 IOWA L. REV. 1467 (2012), that prosecutors voluntarily develop and monitor data records of jury selections. This Article may also be of assistance in considering the design of any such efforts.

^{6.} Commonwealth v. Harold Wilson, 672 A.2d 293 (Pa. 1996).

II. BACKGROUND

This section introduces the evidentiary frameworks contemplated by *Batson* and identifies key disparate treatment issues that have emerged in the application of *Batson*.

A. THE BATSON EVIDENTIARY FRAMEWORK

Batson contemplates a three-stage analysis for the proof and defense of claims of purposeful discrimination in the use of peremptory challenges. In stage one, the defendant carries the burden of establishing a prima facie case of discrimination.⁷ In stage two, the prosecution carries a burden of producing evidence that shows each challenged strike had a legitimate basis, meaning that the jurors were not struck on account of their race or gender.⁸ In stage three, the defendant carries the burden of proving that the explanations offered by the prosecution with respect to one or more venire members were pretextual, thereby supporting an inference that one or more strikes were racially motivated.⁹

The discrimination at issue in a *Batson* case is purposeful, intentional discrimination, which the Supreme Court characterizes as "disparate treatment" discrimination.¹⁰ Disparate treatment claims apply when circumstances give the decision maker ample room for the exercise of discretion—a characterization that perfectly fits the use of peremptory challenges. The basic strategy in proving disparate treatment is to document racial disparities that cannot be plausibly explained by race-neutral characteristics of the protected group, individual, or individuals adversely affected by the challenged decision or decisions.¹¹

^{7.} Batson, 476 U.S. at 96–97. Batson eliminated the presumption that prosecutors acted with nondiscriminatory purpose in striking jurors and the requirement that defendants prove that prosecutors systemically discriminated in case after case. Those requirements, it said, had created a "crippling burden of proof" that left peremptory strikes "largely immune from constitutional scrutiny." *Id.* at 92–93. Instead, the Court held that "the defendant is entitled to rely on the fact, as to which there can be no dispute, that peremptory challenges constitute a jury selection practice that permits 'those to discriminate who are of a mind to discriminate.'" *Id.* at 96 (quoting Avery v. Georgia, 345 U.S. 559, 562 (1953)). It further held that a demonstrated "'pattern' of strikes against black jurors included in the particular venire" can be sufficient to create an inference of discrimination. *Id.* at 97.

^{8.} *Id.* at 97–98. As a prerequisite to rebutting the inference of discrimination, step two of the *Batson* inquiry requires "the prosecutor [to] give a 'clear and reasonably specific' explanation of his 'legitimate reasons' for exercising the challenges." *Id.* at 98 n.20 (quoting Tex. Dep't of Cmty. Affairs v. Burdine, 450 U.S. 248, 258 (1981)). In doing so, *Batson* conformed jury discrimination claims with the standards of proof applied in other disparate treatment claims under the Equal Protection Clause.

^{9.} Id. at 98.

^{10.} Id. at 94 n.18.

^{11.} Disparate treatment discrimination stands in contrast to disparate impact discrimination, which is based on a finding that the nondiscretionary application of a facially neutral rule by a decision maker has had an adverse impact on a protected group. 1 BARBARA T.

B. DISPARATE TREATMENT ISSUES IN THE BATSON EVIDENTIARY FRAMEWORK

Batson jurisprudence incorporated into the evidentiary framework two models of proof that have developed since the 1970s under both Title VII and equal protection law.¹² The first is the individual disparate treatment model,¹³ and the second is the pattern-and-practice model.¹⁴

Under Title VII, an individual disparate treatment theory alleges discrimination in a single case typically without regard to the employer's treatment of other employees or job applicants. ¹⁵ In the employment context, the individual establishes a prima facie case with proof that the claimant is a member of a protected group, was qualified for the job, was rejected, and the job remained open. ¹⁶ With this established, the burden of production shifts to the defendant to show the claimant's lack of qualification for the job. ¹⁷ If the employer makes this showing, the claimant carries the burden of proving that the reasons offered to explain the

LINDEMANN & PAUL GROSSMAN, EMPLOYMENT DISCRIMINATION LAW 109–10 (C. Geoffrey Weirich et al. eds., 4th ed. 2007) (contrasting disparate treatment and disparate impact claims). A good example of such discrimination is the use of height and weight standards in hiring fire fighters or corrections officers. Because men and women on average differ on these dimensions, the evenhanded application of such standards adversely affects women as a group. See, e.g., Dothard v. Rawlinson, 433 U.S. 321 (1977) (deciding against a female applicant for a corrections officer position who brought a disparate impact claim based in part on height and weight requirements).

- 12. However, neither *Batson* nor the case law that evolved before *Miller-El* adequately explained the applicability of the two models. Indeed, in *Batson*, Justice Powell notes with seeming pride that "we make no attempt to instruct [our federal and state] courts how best to implement our holding today." 476 U.S. at 99–100 n.24. At another point, he states that the Court has "confidence that trial judges, experienced in supervising *voir dire*, will be able to decide if the circumstances concerning the prosecutor's use of peremptory challenges create a prima facie case of discrimination against black jurors." *Id.* at 97. The experience of the next twenty-five years demonstrates that this confidence was badly misplaced. *See supra* note 1 and accompanying text.
- 13. 1 LINDEMANN & GROSSMAN, *supra* note 11, at 95–96 (noting that persuasive direct evidence of a defendant's discriminatory intent can support a claim independent of patternand-practice type evidence).
 - 14. Id. at 104-07 (describing the elements of a pattern-and-practice claim).
- 15. Tex. Dep't of Cmty. Affairs v. Burdine, 450 U.S. 248, 253 (1981) (explaining the pleading of an individual plaintiff). In some instances, pattern or practice evidence may be relevant to individual disparate treatment claims. 1 LINDEMANN & GROSSMAN, *supra* note 11, at 82–83 (collecting cases). This theory of liability has had the effect in the *Batson* jurisprudence of diminishing the relevance of "pattern or practice" evidence in *Batson* cases.
- 16. McDonnell Douglas Corp. v. Green, 411 U.S. 792, 802 (1973) (establishing the elements of a prima facie claim); *see also* 1 LINDEMANN & GROSSMAN, *supra* note 11, at 16 (stating the elements of a prima facie case and citing cases for authority).
- 17. McDonnell Douglas, 411 U.S. at 802; see also 1 LINDEMANN & GROSSMAN, supra note 11, at 16.

rejection were pretextual and the decision was a product of purposeful discrimination.¹⁸

Because the analysis in an individual disparate treatment case is based on the facts of only a single case, the practical burden of proof on claimants in the employment context is extremely heavy, and, as a result, these claimants are rarely successful. Some have made similar efforts to reduce the Batson analysis to a series of individual disparate treatment cases, i.e., one such analysis for each venire member, with each defendant limited strictly to the facts of his or her case.¹⁹ Proponents of this shift point out that if the bottom line at stage three of the evidentiary framework turns on an individualized analysis of each venire member and focuses strictly on the credibility of the prosecutor's stated race-neutral reasons, then courts should default directly to that inquiry. Under this default approach, the patternand-practice evidence and any inferences they support drop out of the case and are essentially deemed irrelevant to pretext decisions made during stage three. Miller-El squarely rejected this approach to Batson claims.²⁰ In contrast, recent Supreme Court decisions relied heavily on the pattern-and-practice framework.

The factual issue in a pattern-and-practice case is whether the defendant applied a policy of purposeful discrimination against protected group members in a series of discretionary decisions.²¹ Pattern-and-practice claims under Title VII and the Equal Protection Clause may be proven by direct or circumstantial evidence.²² In the absence of direct evidence, statistical evidence is the most probative form of circumstantial evidence. Under the leadership of the Supreme Court, the federal courts have developed a detailed body of law that regulates the methodology applied in Title VII and equal protection cases.²³

^{18.} McDonnell Douglas, 411 U.S. at 802; see also 1 LINDEMANN & GROSSMAN, supra note 11, at 16.

^{19.} A footnote in *Batson* is consistent with this approach. Batson v. Kentucky, 476 U.S. 79, 96 n.19 (1986) ("[A] person claiming that he has been the victim of intentional discrimination may make out a prima facie case by relying solely on the facts concerning the alleged discrimination against him.").

^{20.} Miller-El v. Cockrell (Miller-El I), 537 U.S. 322, 340-41 (2003).

^{21.} See 1 LINDEMANN & GROSSMAN, supra note 11, at 204–06. The claim alleges that some, but not all, of the adversely affected protected group members were adversely treated because of their race. Id.

^{22.} Id . at 10 ("Discriminatory intent can be shown through direct or circumstantial evidence.").

^{23.} Bazemore v. Friday, 478 U.S. 385, 400 (1986) (per curiam) (Brennan, J., concurring) (refining the requirements for admitting results of regression analyses as evidence of discrimination); Hazelwood Sch. Dist. v. United States, 433 U.S. 299, 309–13 (1977) (providing guidance on the use of statistical evidence in proving a pattern or practice of employment discrimination); Int'l Bhd. of Teamsters v. United States, 431 U.S. 324, 339 (1977) ("[O]ur cases make it unmistakably clear that '[s]tatistical analyses have served and will continue to serve an important role' in cases in which the existence of discrimination is a

Before *Batson*, under *Swain v. Alabama*, litigants used the pattern-and-practice model to challenge the use of peremptory strikes.²⁴ Indeed, *Swain required* a strong showing of a pattern and practice of discrimination in other cases tried by the defendant's prosecutor, in addition to a showing of discriminatory strikes in the defendant's own case.²⁵ However, because of the difficulty of developing the data required to mount a *Swain* challenge, and the heavy burden of proof carried by the defendant claimant in such cases,²⁶ very little evidentiary law developed under *Swain*.²⁷

A key concern under *Batson* has been the failure of the courts to identify and apply the essential features of the pattern-and-practice model evidentiary framework. The Supreme Court has provided very little guidance in this area. The employment discrimination model suggests the following considerations are particularly germane when preparing statistical evidence that speaks precisely to the risk of discrimination in a particular case. First, a study design should follow the rule of relevancy, defined as limiting the analysis to information with the capacity to enhance or diminish an inference that race was a motivating factor in one or more prosecutorial strikes against black venire members.²⁸ Considerations of relevancy should control the scope of the study. Second, the study should seek to include data on a representative sample of relevant cases.²⁹ Third, the study should present as precise measures of the practical and statistical significance of the race of venire member disparities in the individual and in other cases

disputed issue. We have repeatedly approved the use of statistical proof, where it reached proportions comparable to those in this case, to establish a prima facie case of racial discrimination in jury selection cases[.] Statistics are equally competent in proving employment discrimination." (second alteration in original) (citations omitted) (quoting Mayor of Phila. v. Educ. Equality League, 415 U.S. 605, 620 (1974))). See generally DAVID C. BALDUS & JAMES W.L. COLE, STATISTICAL PROOF OF DISCRIMINATION (1980); LINDEMANN & GROSSMAN, supra note 11 (reviewing and providing detailed guidance on employment discrimination law).

- 24. Swain v. Alabama, 380 U.S. 202, 222–27 (1965), overruled by Batson v. Kentucky, 476 U.S. 79 (1986).
 - 25. Id.
- 26. See Stephen A. Saltzburg & Mary Ellen Powers, Peremptory Challenges and the Clash Between Impartiality and Group Representation, 41 MD. L. REV. 337, 345–46, 345 n.42 (1982) (noting the high bar set by Swain and collecting cases in which defendants failed to meet the test); Brent J. Gurney, Note, The Case for Abolishing Peremptory Challenges in Criminal Trials, 21 HARV. C.R.-C.L. L. REV. 227, 240 (1986) (same).
- 27. Gurney, *supra* note 26, at 241-43 (discussing a conflict among circuit courts about how to apply *Swain* in light of subsequent case law).
- 28. 2 LINDEMANN & GROSSMAN, *supra* note 11, at 2286 ("[T]he statistical pool or sample used must logically be related to the employment decision at issue" (quoting Jones v. Pepsi-Cola Metro. Bottling Co., 871 F. Supp. 305, 310 (E.D. Mich. 1994))). Note: Throughout this paper we refer to black venire members as examples because strikes against black venire members were at issue in *Miller-El, Johnson*, and *Snyder*, and are most frequently the subject of a *Batson* claim.

^{29.} Id.

included in the analysis as possible.³⁰ This should include an evaluation of rival hypotheses including chance and missing information.³¹ Finally, the study should seek to include valid and complete data on all relevant variables. This is, of course, often easier said than done.

Courts often lose track of relevancy concerns in *Batson* analyses. One of the most common practices is to contrast the number or proportion of blacks on the venire with the number and proportion on the jury.³² This overall impact analysis is not consistent with the rule of relevancy because it embraces the impact of challenges for cause, hardship strikes, and the opposing party's peremptory strikes. The approach is understandably animated by an interest in the extent to which the use of peremptories by both sides reduces the representation of blacks on the jury below what one would expect to see in a voir dire that was evenhanded on both sides. Because this consideration bears on a defendant's right to a fair trial, particularly when the defendant is black, this is an understandable interest. In the view of the Supreme Court, however, it is not the controlling interest. The Court has stated on numerous occasions that the principal purpose of Batson and its progeny is to protect venire members from race and gender discrimination.33 Concerns about the impact of the use of peremptories on a defendant's right to a fair trial of his or her racial peers is secondary.34

^{30.} Id.

^{31.} Id.

^{32.} See, e.g., United States v. Moore, 651 F.3d 30, 41 (D.C. Cir. 2011); United States v. Grice, 335 Fed. App'x 924, 928 (11th Cir. 2009); McGahee v. Ala. Dep't of Corr., 560 F.3d 1252, 1259, 1265 (11th Cir. 2009); Jones v. West, 555 F.3d 90, 98–100 (2d Cir. 2009); Paulino v. Harrison, 542 F.3d 692, 695 (9th Cir. 2008); Franklin v. Sims, 538 F.3d 661, 666 (7th Cir. 2008); Golphin v. Branker, 519 F.3d 168, 183 (4th Cir. 2008); United States v. Ervin, 266 Fed. App'x 428, 431–32 (6th Cir. 2008); United States v. Hendrix, 509 F.3d 362, 370 (7th Cir. 2007); Aspen v. Bissonnette, 480 F.3d 571, 576–77 (1st Cir. 2007); United States v. Abdush-Shakur, 465 F.3d 458, 468 (10th Cir. 2006); United States v. Nelson, 450 F.3d 1201, 1205 (10th Cir. 2006); United States v. Ochoa-Vasquez, 428 F.3d 1015, 1045–46, 1046 n.42 (11th Cir. 2005); United States v. Stephens, 421 F.3d 503, 512–14 (7th Cir. 2005); Bennett v. Bartley, No. 07 C 1975, 2008 WL 4866169, at *6 (N.D. Ill. June 23, 2008), aff'd sub nom. Bennet v. Gaetz, 592 F.3d 786 (7th Cir. 2010); People v. Ross, No. E038158, 2006 WL 3734965, at *4, *6 (Cal. Ct. App. Dec. 19, 2006).

^{33.} See J.E.B. v. Alabama ex rel. T.B., 511 U.S. 127, 128 (1994) ("We have recognized that whether the trial is criminal or civil, potential jurors, as well as litigants, have an equal protection right to jury selection procedures that are free from state-sponsored group stereotypes rooted in, and reflective of, historical prejudice."); see also Georgia v. McCollum, 505 U.S. 42, 56 (1992); Edmonson v. Leesville Concrete Co., 500 U.S. 614, 629 (1991); Powers v. Ohio, 499 U.S. 400, 409 (1991).

^{34.} A party's conduct with respect to seeking or opposing excusals for cause may constitute circumstantial evidence in support of a *Batson* claim. See, for example, the disparate question allegations in *Miller-El*. Miller-El v. Dretke (*Miller-El II*), 545 U.S. 231, 255 (2005) ("Some of these prefatory statements were cast in general terms, but some followed the so-called graphic script, describing the method of execution in rhetorical and clinical detail. It is intended, Miller-El contends, to prompt some expression of hesitation to consider the death

A related area concerns the appropriate scope for the universe of cases and venire members to which the pattern-and-practice model of proof should or may be applied. In other words, is the use of peremptories in other cases tried by the defendant's prosecutor a "relevant circumstance" within the meaning of *Batson?*³⁵ As noted above, *Swain* required the defendant to prove a pattern and practice of discrimination in other cases tried by his prosecutor.³⁶ Since *Batson*, some courts have ruled that the only relevant strikes under *Batson* are those against black venire members in the defendant's own case.³⁷ An even broader question under the pattern-and-practice model is whether and in what circumstances courts may consider cases tried by other prosecutors serving in the office that prosecuted the defendant's case.

With respect to measures of the practical and statistical significance of evidence of discrimination, courts often fail to apply measures of the treatment of both the protected and majority group members in a manner that documents a disparity between the "actual" treatment of the protected group and the treatment of the protected group that one would "expect" to see in an evenhanded decision making process.³⁸ This essential detail was omitted from *Batson*³⁹ and only a handful of pre-*Miller-El* courts recognized its importance.⁴⁰ The *Wilson* case, discussed below, shows how this kind of partial look at statistics can mask significant discrimination.⁴¹

penalty and thus to elicit plausibly neutral grounds for a peremptory strike of a potential juror subjected to it, if not a strike for cause.").

- 35. In his discussion of the prima facie case, Justice Powell states that the defendant "must show" that the prosecutor's strikes in the defendant's case "and any other relevant circumstances raise an inference" that prosecutorial strikes in his case were racially motivated. Batson v. Kentucky, 476 U.S. 79, 96 (1986).
 - 36. Swain v. Alabama, 380 U.S. 202, 227 (1965), overruled by Batson, 476 U.S. 79.
- 37. See, e.g., Coombs v. Diguglielmo, 616 F.3d 255, 263 (3d Cir. 2010); Grice, 335 Fed. App'x at 928-29; Reed v. Quarterman, 555 F.3d 364, 368 (5th Cir. 2009); United States v. Brown, 553 F.3d 768, 796 (5th Cir. 2008); Nelson, 450 F.3d at 1207-08; Ross, 2006 WL 3734965, at *6.
- 38. See 1 LINDEMANN & GROSSMAN, supra note 11, at 136-37 & n.109 (reporting that courts evaluating employment discrimination claims typically "compare the selection (or pass) rate of the protected group with that of its preferred counterpart," and collecting cases).
- 39. Batson suggested that discrimination may be established on a showing that the "prosecutor has exercised peremptory challenges to remove from the venire members of the defendant's race." 476 U.S. at 96. An example of such conduct could be a "'pattern' of strikes against black jurors" in the venire. *Id.* at 97. Although *Batson* never overtly referenced comparative analysis, its relevance is implicit from references in Justice Powell's opinion to earlier cases involving discrimination in the selection of venire, as contrasted to juries, in which he uses such terms as "disproportionate impact" and "exclusion," and "substantially underrepresented." *Id.* at 93, 95.
- 40. The consequences of Justice Powell's imprecision, and the Court's failure to clarify the requirements of proof until 2003, is reflected in the results of an empirical study by Kenneth J. Melilli. See generally Melilli, supra note 1. For example, Melilli analyzed the methodology used in determining the existence of a prima facie case in 585 Batson cases between 1986 and 1993. Id. at 471–73 & tbls.G-1 & G-2. In these 585 cases, he documented the use of eight quantitative

Another recurrent issue concerns the methods for evaluating the plausibility of the rival hypothesis that any documented race disparities in the prosecutor's use of peremptories are the product of chance or the impact of racially neutral factors.⁴² A number of cases, including *Batson*, have alluded to this chance–rival hypothesis, but few, if any, have formally tested its plausibility with a measure of statistical significance.⁴³

III. FROM MILLER-EL I THROUGH SNYDER

The line of cases that provides the centerpiece of this Article began with the case of Thomas Joe Miller-El. Although the procedural history of the case is complex and long—Miller-El's *Batson* claim was eventually considered by a total of eleven courts over the course of nineteen years⁴⁴—the outcome of Miller-El's voir dire and trial was straightforward and fairly typical. Miller-El, an African American, was convicted in 1986 of first-degree murder and sentenced to death by a Texas jury with a single black member.⁴⁵ Miller-El challenged the seating of the jury on the grounds that the prosecution violated *Swain*⁴⁶ in its discriminatory exercise of peremptory challenges.⁴⁷ The trial court denied the motion and subsequently denied the claim again

methods. *Id.* Only one of these methods, appearing in 34 cases (6%), relied on a comparison of strike rates for the protected and majority venire members. *Id.* at 471–73, 478. More recent surveys of *Batson* methodology are to the same effect. David C. Baldus et al., *The Use of Peremptory Challenges in Capital Murder Trials: A Legal and Empirical Analysis*, 3 U. PA. J. CONST. L. 3 (2001) (studying the role of race in peremptory challenges in Philadelphia); Jeffrey Bellin & Junichi P. Semitsu, *Widening Batson's Net To Ensnare More than the Unapologetically Bigoted or Painfully Unimaginative Attorney*, 96 CORNELL L. REV. 1075 (2011) (studying *Batson* claims in federal cases between 2000 and 2009).

- 41. See infra text accompanying note 130.
- 42. In the employment context, a prima facie case is established with a model of statistical proof of practically significant disparity that discounts the rival hypothesis of chance and, depending on the nature of the job, the rival hypothesis that the race disparity is the product of race-neutral factors. In rebuttal, the defendant seeks to rebut the disparity by establishing the plausibility of the chance or race-neutral factor hypotheses as its source. If the rebuttal fails, the court will find that a pattern and practice of discrimination has been established. When this occurs, the case moves to a remedial stage in which each adversely affected protected-class member is entitled to relief unless the employer can prove that the decision in his or her case was based on a race-neutral factor.
 - 43. Batson, 476 U.S. at 95.
- 44. Miller-El v. Dretke ($\it Miller-El~II$), 545 U.S. 231, 236–37 (2005) (laying out the procedural history of the case).
- 45. Miller-El v. Cockrell (*Miller-El II*), 537 U.S. 322, 326, 328 (2003). The defendant was convicted of killing one person in the course of a robbery, *id.*, and the death sentence was imposed by the court on the strength of a jury finding that he would be a continuing threat to society if permitted to live. Transcript of Oral Argument at 40, *Miller-El II*, 545 U.S. 231 (No. 03-9659); *see also* Joint Appendix, Vol. II *Miller-El II*, 545 U.S. 231 (No. 03-9659), 2004 WL 2892870 at *1018, *1036.
 - 46. Swain v. Alabama, 380 U.S. 202 (1965), overruled by Batson, 476 U.S. 79.
 - 47. Miller-El I, 537 U.S. at 328.

under the newly imposed *Batson* framework.⁴⁸ Thus began the case that eventually persuaded the Supreme Court to provide additional guidance on the *Batson* framework.

A. THE MANY CASES OF THOMAS JOE MILLER-EL

During voir dire at Miller-El's trial, the prosecution peremptorily struck 91% (10/11) of the black venire members but only 13% (4/31) of the white venire members.⁴⁹ Miller-El's *Batson* claim focused on six of the ten black venire members struck by the prosecution.⁵⁰

There was also evidence of racially stratified disparities in prosecutorial questioning of venire members that appeared to put blacks at greater risk than whites of being struck for cause. Specifically, as a predicate to questions about venire member attitudes about the death penalty, 53% (8/15) of the black versus 6% (3/49) of the white venire members were given a "graphic description" of how death sentenced prisoners were executed in Texas,⁵¹ which was likely to enhance a typical venire member's reservations about the morality of capital punishment.⁵²

In addition, as a predicate to a question about the juror's potential willingness to follow the law and impose a minimum sentence—if that is what the jury believed was required by the facts of the case—the prosecution gave 94% of the white venire members information on Texas sentencing law that would increase their chances of answering this question correctly, while only 12% (1/8) of the black venire members were given this information.⁵³

Additional evidence showed that in Miller-El's voir dire, the prosecution used a procedure, known as the jury shuffle,⁵⁴ to rearrange the order in which venire members in the courtroom were considered for strikes by each side in a manner that reduced the number of black venire members who would be considered before the final jury was agreed upon.⁵⁵ The Court

^{48.} Id. at 329.

^{49.} Id. at 331.

^{50.} Id. at 350 (Scalia, J., concurring).

^{51.} Id. at 332 (majority opinion).

^{52.} Miller-El v. Dretke (*Miller-El II*), 545 U.S. 231, 260 (2005) (rejecting the state's alternate explanation for the use of the graphic script and concluding that "if we posit instead that the prosecutors' first object was to use the graphic script to make a case for excluding black panel members opposed to or ambivalent about the death penalty, there is a much tighter fit of fact and explanation").

^{53.} *Miller-El I*, 537 U.S. at 332–33. The State eventually "concede[d] that the manipulative minimum punishment questioning was used to create cause to strike." *Miller-El II*, 545 U.S. at 261 (citing Brief of Respondent at 33 & n.26, *Miller-El II*, 545 U.S. 231 (No. 03-9659)).

⁵⁴. In Texas criminal cases, "either side may literally reshuffle the cards bearing panel members' names, thus rearranging the order in which members of a venire panel are seated and reached for questioning." *Miller-El II*, 545 U.S. at 253.

^{55.} *Miller-El I*, 537 U.S. at 333–34. There was also evidence that the prosecutors recorded the race of each venire member in their records. *Id.* at 347.

found that while there "might be" racially neutral reasons to shuffle the jury, the State offered none and "nothing stop[ped] the suspicion of discriminatory intent from rising to an inference." 56

The record also included "extensive evidence" of race discrimination in the use of peremptories by the District Attorney's Office, whose tenure (1951-1987) embraced the Miller-El prosecution.57 The first type of evidence in this regard was testimony of current and former prosecutors and judges who had firsthand knowledge of the office and believed that "the office had a systematic policy of excluding African-Americans from juries."58 The second type of evidence, which the court considered to be of "more importance," included a "formal policy" from the 1960s and a "Jury Selection" manual for criminal cases written in 1968, which "outlin[ed] the reasoning for excluding minorities from jury service."59 The manual remained in circulation until 1976 and was available to at least one of the Miller-El prosecutors. 60 The State argued that the policies in the manual had been discontinued before Miller-El's trial, but other evidence stated they existed as late as 1985, and the record contained an admission of a prosecutor that he had once used the jury shuffle to reduce the number of blacks in the venire.61

In rebuttal, the State offered one or more of the following as race-neutral reasons for the six prosecutorial strikes at issue: "ambivalence about the death penalty; hesitancy to vote to execute defendants capable of being rehabilitated; and the juror's own family history of criminality." ⁶²

The lower courts uniformly denied Miller-El relief on his *Batson* claim, starting with a 1988 remand of his case from his direct appeal for consideration of his claim in "light of *Batson*," which had recently been

^{56.} Miller-El II, 545 U.S. at 254-55.

^{57.} The extensive evidence was offered in a pre-trial *Swain* hearing, as *Batson* had not been decided at the time of Miller-El's trial. *Miller-El* I, 537 U.S. at 328, 334.

^{58.} Id. at 334.

^{59.} *Id.* at 334-35.

⁶o. Id. at 335.

^{61.} The record contained two further items of evidence that were not referred to in Justice Kennedy's opinion. The record contained two empirical studies of voir dire conducted by a local newspaper covering periods close in time to the defendant's trial (1980–1986, 1982–1984) that showed strong race disparities in the prosecutorial use of peremptories. See Steve McGonigle & Ed Timms, Race Bias Pervades Jury Selection: Prosecutors Routinely Bar Blacks, Study Finds [Part 1 of 2], DALL. MORNING NEWS, Mar. 9, 1986, at 1A, available at 1986 WLNR 1683009; Ed Timms & Steve McGonigle, A Pattern of Exclusion: Blacks Rejected from Juries in Capital Cases, DALL. MORNING NEWS, Dec. 21, 1986, at 1A, available at 1986 WLNR 1716765; see also Miller-El II, 545 U.S. at 275–76 (Thomas, J., dissenting) (noting that Miller-El presented "excerpts from a series of newspaper articles"). The newspaper articles appear in Volume II of the Joint Appendix. Joint Appendix, Vol. II, Miller-El II, 545 U.S. 231 (No. 03-9659), 2004 WL 2891870 at *1018, *1036. There was also evidence of race disparities and Batson violations in other cases tried by the prosecutors in Miller-El's case. Miller-El I, 537 U.S. at 334.

^{62.} Miller-El I, 537 U.S. at 343.

decided.⁶³ In *Miller-El I*, the Supreme Court reviewed the denial of a certificate of appealability ("COA") and held that the COA should have issued.⁶⁴ Upon remand, the Fifth Circuit granted the COA and rejected Miller-El's *Batson* claim on the merits.⁶⁵ The Supreme Court granted certiorari to review this decision and reversed, ordering relief.⁶⁶

B. CONTINUED ATTENTION TO THE ANALYTICAL MODEL: JOHNSON V. CALIFORNIA (2005) & SNYDER V. LOUISIANA (2008)

In the years following *Miller-El II*, the Supreme Court issued two more decisions clarifying the *Batson* framework and the underlying evidentiary law.⁶⁷ Both cases involved capital murder trials.⁶⁸ The first case was *Johnson v. California*.⁶⁹ During voir dire at Johnson's trial, the prosecution used three of twelve peremptory challenges to remove all three eligible black prospective jurors, resulting in an all-white jury.⁷⁰ The trial court denied both of Johnson's *Batson* claims largely without input from the prosecution.⁷¹ The California Supreme Court ultimately agreed that the defendant had not established a prima facie case,⁷² holding that Johnson had failed to present

^{63.} *Id.* at 329. *Batson* was decided during Miller-El's direct appeal. The appellate court held that his evidence "established an inference of purposeful discrimination." *Id.* The state trial court ruled that the evidence failed to establish a prima facie case of discrimination, and even if it did, the "prosecutors had offered credible, race-neutral explanations for each African-American excluded." *Id.* The state trial court rejected Miller-El's *Batson* claim in state post-conviction proceedings; the state supreme court affirmed the decision on appeal. *Id.* In federal court, the magistrate judge expressed concern about the evidence but accepted the "prosecutors' race-neutral justifications for striking the potential jurors" and recommended dismissal of Miller-El's petition for a writ of habeas corpus. *Id.* at 329–30. The district court adopted the magistrate's report and dismissed the petition. *Id.* at 330. Thereupon, Miller-El unsuccessfully sought a certificate of appealability ("COA") in the district court and that denial was affirmed in the Fifth Circuit on the ground that he "failed to make a substantial showing of the denial of a constitutional right." Miller-El v. Johnson, 261 F.3d 445, 452 (5th Cir. 2001), *rev'd sub nom. Miller-El I*, 537 U.S. 322.

^{64.} Miller-El I, 537 U.S. at 326–27. The Supreme Court found that the Fifth Circuit applied an unduly conservative standard in evaluating the COA petition and that the COA should have issued because the question of race discrimination in the exercise of peremptories in the case was "debatable." *Id.* at 343.

^{65.} Miller-El II, 545 U.S. at 237.

^{66.} Id

^{67.} Snyder v. Louisiana, 552 U.S. 472 (2008); Johnson v. California, 545 U.S. 162 (2005).

^{68.} Snyder, 552 U.S. 472 (stating that the defendant received a death sentence for attacking his estranged wife and her companion with a knife, killing the companion); Johnson, 545 U.S. 162 (stating that the defendant received a death sentence for second-degree murder and assault on a 19-month-old child).

^{69.} Johnson, 545 U.S. 162.

^{70.} *Id.* at 164-65.

^{71.} Id. at 165.

^{72.} Id. at 166-68.

"'strong evidence' that makes discriminatory intent *more likely than not.*" The United States Supreme Court rejected this standard of proof for stating a prima facie case under *Batson*, holding that a *Batson* claimant must only "produc[e] evidence sufficient to permit the trial judge to draw an inference that discrimination has occurred" and found the evidence in the case sufficient to establish a prima facie case under *Batson*.74

The second case, *Snyder v. Louisiana*, was tried in Jefferson Parish, Louisiana, before an all-white jury.⁷⁵ The prosecution struck all five qualified black jurors, reducing the representation rate of black jurors in the jury pool from 14% (5/36) to 0% (0/12).⁷⁶ A split panel of the Louisiana Supreme Court denied Snyder's *Batson* claim on direct appeal and on remand from the United States Supreme Court for reconsideration in light of *Miller-El II.*⁷⁷ The Supreme Court conducted detailed analysis of the prosecution's strike against one black juror, finding the proffered reasons implausible and conducting a comparative analysis of the failure to strike comparable white jurors.⁷⁸ The Court then ruled on the merits in favor of the defendant, finding that the exercise of peremptory strikes violated *Batson*.⁷⁹

C. THE EMERGENT ANALYTIC MODEL

As noted above, the central question for this Article concerns the extent to which the *Miller-El* line of cases clarifies the evidentiary framework or methodology required for a reliable analysis of statistical evidence in *Batson* cases. In these cases, the Court again cited to Title VII authority by comparison, but did not expressly adopt all aspects of that model. Nonetheless, the Court's reliance highlights the commonly overlooked point that nearly all of the methodological issues in *Batson* cases have counterparts in Title VII cases, particularly the pattern-and-practice jurisprudence. A

^{73.} *Id.* at 167 (citing People v. Johnson, 71 P.3d 270, 278 (Cal. 2003), dismissed sub nom. Johnson v. California, 541 U.S. 428 (2004), and rev'd sub nom. Johnson v. California, 545 U.S. 162 (2005)).

^{74.} Id. at 170.

^{75.} Snyder v. Louisiana, 552 U.S. 472, 476 (2008).

^{76.} *Id.* at 475–76. Snyder also presented evidence that the prosecutor improperly referred to the case as his "O.J. Simpson case" and suggested to the jury that Snyder's case resembled Simpson's, but Simpson "got away [with] it." Joint Appendix Vol. II, *Snyder*, 552 U.S. 472 (No. 06-10119), 2007 WL 2685159, at *606–07.

^{77.} Snyder, 552 U.S. at 476.

^{78.} Id. at 479-86.

^{79.} *Id.* at 486. The Court did not analyze the importance of the references to O.J. Simpson's case to an inference of discriminatory intent.

^{80.} See Snyder, 552 U.S. at 485 (citing St. Mary's Honor Ctr. v. Hicks, 509 U.S. 502, 511 (1993)); Johnson v. California, 545 U.S. 162, 171 n.7 (2005) (citing several Title VII cases, including McDonnell Douglas Corp. v. Green, 411 U.S. 792 (1973)); Miller-El v. Cockrell (Miller-El I), 537 U.S. 322, 340–41 (2003) (citing Reeves v. Sanderson Plumbing Prods., Inc., 530 U.S. 133 (2000)).

proper understanding of this point may point state and federal courts in the right direction when they confront *Batson* pattern-and-practice issues.

The most significant ruling in Miller-El I holds that "the facts and circumstances that [are] adduced in support of the prima facie case" of pattern-and-practice disparate treatment are also relevant to the defendant's pretext claim in stage three of the Batson evidentiary framework to the effect that "despite the neutral explanation of the prosecution, the peremptory strikes in the final analysis were race based."81 This ruling is a clear repudiation of the position that the Batson evidentiary framework should be viewed as a series of independent freestanding disparate treatment cases for each protected-class venire member struck by the prosecution, without regard for the pattern-and-practice evidence in the case.82 The Court reiterated this holding in Miller-El II, emphasizing its importance.83 This holding has particular implications in light of the use of comparative juror analyses in stage three. A comparative juror analysis necessarily focuses on the treatment of an individual venire member. Indeed, finding discrimination with respect to a single venire member is sufficient to find a violation.84 Yet, the comparative analysis should be framed by all of the evidence before the court, including statistical pattern-and-practice evidence.85

In addition, *Miller-El I* holds that the test at stage three is not whether race was the sole motivating factor but rather whether it was a contributing factor in one or more of the prosecutorial decisions to strike at least one

^{81.} Miller-El I, 537 U.S. at 340 (citing Reeves, 530 U.S. 133). The government conceded that a prima facie case had been established. Id. at 338.

^{82.} The court properly conducted a similar comparative analysis of the prosecution's differential questioning strategies that were allegedly designed to make the black venire members more vulnerable to strikes for cause. *Id.* at 332.

^{83.} Miller-El v. Dretke (*Miller-El II*), 545 U.S. 231, 252, 265–66 (2005). *See also id.* at 240 ("Some stated reasons are false, and although some false reasons are shown up within the four corners of a given case, sometimes a court may not be sure unless it looks beyond the case at hand. Hence *Batson*'s explanation that a defendant may rely on 'all relevant circumstances' to raise an inference of purposeful discrimination." (quoting Batson v. Kentucky, 476 U.S. 79, 96–97 (1986))).

^{84.} *Snyder*, 552 U.S. at 478 ("Because we find that the trial court committed clear error in overruling petitioner's *Batson* objection with respect to [one venire member], we have no need to consider petitioner's claim regarding [a second venire member].").

⁸⁵. See, e.g., Miller-El II, 545 U.S. at 241-42 (incorporating statistical analysis into a comparative juror analysis).

black venire member.⁸⁶ This guidance, again following Title VII jurisprudence, sharpens the inquiry.⁸⁷

Justices Kennedy (in *Miller-El I*) and Souter (in *Miller-El II*) relied on the wide range of evidence before the Court in *Miller-El* to discuss or suggest a useful hierarchy of classes of evidence.⁸⁸ The hierarchy itself is of note: the highest level of evidence is the numerical disparity in prosecutorial strike rates between black and white venire members.⁸⁹ Indeed, almost every *Batson* case reviewed on appeal starts by presenting these numerical disparities.⁹⁰ The *Miller-El* line of cases provides some guidance about how to measure these disparities.

This top berth is shared by the side-by-side comparisons of black venire members who were struck and white venire members who served on the jury—the so-called comparative juror analysis.⁹¹ In *Miller-El II*, a comparative juror analysis focused on the striking of black jurors, ostensibly on grounds of difficulty imposing the death penalty, while accepting white jurors who had expressed similar views.⁹² In *Snyder*, a similar analysis compared the hardship rational attached to an excused black juror to a similar hardship

^{86.} Miller-El I, 537 U.S. at 338–39. In his discussion of the jury shuffle, Justice Kennedy stated that "the practice here tends to erode the credibility of the prosecution's assertion that race was not a motivating factor in the jury selection." *Id.* at 346. Also, in his discussion of the role of nonracial factors, he noted that these factors might have been selectively applied and "based on racial considerations." *Id.* at 343. The Court reiterated the sufficiency of discrimination against any single juror in *Snyder*. *Snyder*, 552 U.S. at 478.

^{87.} See, e.g., 42 U.S.C. § 2000e-2(m) (2006) ("Except as otherwise provided in this subchapter, an unlawful employment practice is established when the complaining party demonstrates that race, color, religion, sex, or national origin was a motivating factor for any employment practice, even though other factors also motivated the practice.").

^{88.} See discussion below for an exploration of the full range of evidence in Miller-El's case. It is not always possible or necessary for a *Batson* claimant to produce the full range of evidence. *See, e.g., Snyder,* 552 U.S. 472.

^{89.} See Miller-El II, 545 U.S. at 240-41, 265; Miller-El I, 537 U.S. at 342.

^{90.} See, e.g., Lark v. Sec'y Pa. Dep't of Corr., 645 F.3d 596, 605–06 (3d Cir. 2011); Bennett v. Gaetz, 592 F.3d 786, 791 (7th Cir. 2010); McGahee v. Ala. Dep't of Corr., 560 F.3d 1252, 1266–67 (11th Cir. 2009); Dungen v. Estep, 311 F. App'x 99, 104 (10th Cir. 2009); Jones v. West, 555 F.3d 90, 97–99 (2d Cir. 2009); United States v. Brown, 553 F.3d 768, 794 (5th Cir. 2008); Paulino v. Harrison, 542 F.3d 692, 695 (9th Cir. 2008); Abu-Jamal v. Horn, 520 F.3d 272, 287 (3d Cir. 2008), cert. denied, Abu-Jamal v. Beard, 129 S. Ct. 1910 (2009); Golphin v. Branker, 519 F.3d 168, 180–81 (4th Cir. 2008); United States v. Ervin, 266 F. App'x 428, 431–32 (6th Cir. 2008); United States v. Hendrix, 509 F.3d 362, 367, 370 (7th Cir. 2007); Aspen v. Bissonnette, 480 F.3d 571, 576 (1st Cir. 2007); Sorto v. Herbert, 497 F.3d 163, 167–68 (2d Cir. 2007); Williams v. Runnels, 432 F.3d 1102, 1107 (9th Cir. 2006); United States v. Ochoa-Vasquez, 428 F.3d 1015, 1044–46 (11th Cir. 2005); United States v. Stephens, 421 F.3d 503, 513 (7th Cir. 2005); Bennett v. Bartley, No. 07 C 1975, 2008 WL 4866169, at *6 (N.D. Ill. June 23, 2008), aff'd sub nom. Gaetz, 592 F.3d 786.

^{91.} *Miller-El II*, 545 U.S. at 240–41. In *Miller-El II*, Justice Souter began by presenting the numerical disparities but then noted the side-by-side comparisons to be "[m]ore powerful than these bare statistics." *Id.* at 241; *see also Snyder*, 552 U.S. at 475–78 (following a similar pattern).

^{92.} Miller-El II, 545 U.S. at 241-48.

situation for a seated white juror.⁹³ Next in importance are "broader patterns of practice during the jury selection."⁹⁴ In *Miller-El* these included the "disparate questioning," which provided "some evidence of purposeful discrimination,"⁹⁵ and the jury shuffle—a collateral procedural move, which "raise[d] a suspicion that the State sought to exclude [black venire members] from the jury."⁹⁶

Justice Kennedy's opinion highlights several important features of the kinds of inferential statistical evidence developed in employment discrimination cases. Justice Kennedy provides support for the relevance of district-wide data to a *Batson* claim by relying in part on Miller-El's evidence of discrimination in the Dallas County District Attorney's Office.⁹⁷ Justice Kennedy notes:

Irrespective of whether the evidence could prove sufficient to support a charge of systematic exclusion of African-Americans, it reveals that the culture of the District Attorney's Office in the past was suffused with bias against African-Americans in jury selection. This evidence, of course, is relevant to the extent it casts doubt on the legitimacy of the motives underlying the State's actions in petitioner's case.⁹⁸

Justice Kennedy also models the use of precise measures of strike-rate disparities. Perhaps most importantly, he recognizes the importance of a "comparative juror analysis" of the numerical disparity in prosecutorial strike rates against black venire members to the strike rates against white venire members.⁹⁹ This contrasts sharply with the typical asymmetrical practice used by courts when assessing a prima facie case.¹⁰⁰ Justice Kennedy directly contrasts the 0.91 (10/11) strike rate of the black venire members with the

^{93.} Snyder, 552 U.S. at 478-85.

^{94.} Miller-El II, 545 U.S. at 253.

^{95.} Miller-El I, 537 U.S. at 344; see also Miller-El II, 545 U.S. at 255-57.

^{96.} Miller-El I, 537 U.S. at 346; see also Miller-El II, 545 U.S. at 253-54, 265-66.

^{97.} *Miller-El I*, 537 U.S. at 346–47; see also Miller-El II, 545 U.S. at 263–64.

^{98.} Miller-El I, 537 U.S. at 347.

^{99.} See id. at 343 ("[A] comparative juror analysis . . . does make debatable the District Court's conclusion that no purposeful discrimination occurred."). A strike rate is the number of strikes exercised against a particular group of venire members by a particular party divided by the total venire members in the group and available for strike by the party.

^{100.} See supra note 40 and accompanying text. In Snyder, the Court focused exclusively on the fact that all five eligible black jurors were struck by the state. See Snyder v. Louisiana, 552 U.S. 472, 475–76 (2008). This means that the prosecution's strike rate against black venire members was 100% (5/5). The Court did not report that the prosecution struck 23% of eligible white jurors (7/31), producing a 71-point disparity and a ratio of 3.2. Brief of Petitioner at 22–23, Snyder, 552 U.S. 472 (No. 06-10119), 2007 WL 2605447. See also Johnson v. California, 545 U.S. 162, 164 (2005) (presenting only prosecutorial strikes against eligible black jurors and reporting that the prosecutor's efforts produced an all-white jury).

o.13 (4/31) rate for the white venire members.¹⁰¹ His analysis would have gained additional strength had he noted that these statistics document that the average black venire member had a 78-percentage point higher chance of being struck than did the average white venire member (0.91–0.13), and that the prosecutorial strike rate was seven times higher for black than for white venire members (0.91/0.13). These measures are a good indication of the degree of harm suffered by black venire members individually and as a group.¹⁰²

In a similar vein, *Miller-El I* highlights the association between the magnitude of the race disparities and the strength of the inference that the prosecutorial race-neutral explanations reflect pretext. For example, Justice Kennedy contrasts the 47-percentage point (0.53–0.06) race disparity in the rates that Miller-El's prosecutors predicated their questions about the death penalty with an explicit description of a Texas execution¹⁰³ with the 82-point (0.94–0.12) race disparity in the rates that the prosecution provided information to the venire members on the state of Texas law concerning the minimum sentence available for defendants convicted of first-degree murder.¹⁰⁴ He notes that the 47-point disparity was less suggestive of race motivation in the use of prosecutorial peremptories than the 82-point disparity.¹⁰⁵

Finally, Justice Kennedy's opinion provides useful guidance on the "weight" that should be attributed to statistically based pattern-and-practice evidence "raising a suspicion" that an individual strike was racially motivated. In his opinion, the unadjusted 91-point race disparity in the prosecutorial strike rates "raises some debate as to whether the prosecution acted with a race-based reason when striking prospective jurors." ¹⁰⁶ In connection with allegedly pretextual reasons offered to "justify the removal of African-Americans from the venire," ¹⁰⁷ he quotes with approval language from *Batson* to the effect that "under some circumstances proof of discriminatory impact 'may for all practical purposes demonstrate unconstitutionality because in various circumstances the discrimination is very difficult to explain on nonracial grounds." ¹⁰⁸

^{101.} Miller-El I, 537 U.S. at 342–43. Justice Souter referenced Miller-El I in Miller-El II and emphasized the disparity in strike rates in his concluding analysis. Miller-El II, 545 U.S. at 240–41, 265.

^{102.} The Court conducted a similar comparative analysis of the prosecution's differential questioning strategies that were allegedly designed to make the black venire members more vulnerable to strikes for cause. *Miller-El I,* 537 U.S. at 345. *Miller-El II* repeats and quotes this information as well. *Miller-El II,* 545 U.S. at 260–62.

^{103.} Miller-El I, 537 U.S. at 344.

^{104.} Id. at 345.

^{105.} *Id*.

^{106.} Id. at 342.

^{107.} Id. at 345.

^{108.} *Id.* (quoting Batson v. Kentucky, 476 U.S. 79, 93 (1986)).

Use of statistical measures of discrimination also requires that the court understand the impact of chance or racially neutral factors in the analysis.¹⁰⁹ Justice Kennedy's opinion highlights the importance of evaluating the plausibility that rival nonracial hypotheses may explain the racial disparities documented by a *Batson* claimant. Justice Kennedy's references to "chance or accident"¹¹⁰ and "[h]appenstance"¹¹¹ clearly reflect his concern about the importance of discounting chance as a nonracial rival hypothesis.¹¹² Justice Souter repeated these references in *Miller-El II.*¹¹³ Although Miller-El apparently did not present measures of the statistical significance of the key disparities in his case, had he done so they would have clearly discounted the rival hypothesis of chance.¹¹⁴

The 78-point difference in strike rates in Miller-El's case is an "unadjusted" disparity because it does not take into account or "adjust" for the impact of other relevant venire-member characteristics. The second race-neutral rival hypothesis discussed in *Miller-El I* was the risk that the 78-point disparity in strike rates was an artifact of a failure to control for race-neutral characteristics of the venire members, such as their attitudes about capital punishment, the criminal histories in their families, and other legitimate venire-member characteristics. In this situation, risk of a faulty inference of the pattern-and-practice issue would exist if, on average, the black and white venire members did not face a comparable risk of prosecutorial strike once these race-neutral factors are considered. If such differences in strike-proneness did exist, the introduction of controls for those factors would explain away the 78-point race disparity.¹¹⁵

The extent to which statistical evidence offered by a defendant in support of a prima facie case must be adjusted for race-neutral factors remains unclear in this area of law. In *Miller-El I* the State conceded that a prima facie case had been established and the Supreme Court agreed, stating that the unadjusted evidence of a pattern and practice of

^{109.} Also relevant are case characteristics, such as the defendant's and victim's racial characteristics in the case.

^{110.} Miller-El I, 537 U.S. at 346 (quoting Vasquez v. Hillery, 474 U.S. 254, 259 (1986)).

^{111.} Id. at 342.

^{112.} Justice Kennedy also cites other cases ruling out the possible influence of chance. *Id.* at 3.46.

^{113.} Miller-El v. Dretke (Miller-El II), 545 U.S. 231, 241 (2005).

^{114.} The authors' analysis of the data presented in the case showed that each of the unadjusted disparities was statistically significant beyond the 0.001 level.

^{115.} On this point it is useful to distinguish between the question of whether there was a pattern and practice of discrimination, which motivated some, but not all, of the black venire-member strikes, and the question of which strikes against individual black venire members could be explained by one or more race-neutral characteristics. Miller-El appears to have agreed that of the ten blacks peremptorily struck by the prosecution, four of the strikes could be explained by race-neutral factors. *Miller-El II*, 545 U.S. at 252 n.11; *id.* at 286 (Thomas, J., dissenting).

discrimination was sufficient to establish a prima facie case.¹¹⁶ This suggests that a prima facie *Batson* case need not rest on adjusted race disparity. The Court nevertheless expressed interest in the extent to which controls for race-neutral factors could explain the race disparities documented in Miller-El's case and, by implication, in the other cases prosecuted by the administration of the District Attorney responsible for the Miller-El prosecution.¹¹⁷ As discussed below, the question of control goes directly to the weight of the evidence in the stage-three pretext analysis.

While it may be possible to identify and control for the impact of some race-neutral characteristics, any analysis is vulnerable to challenge on the grounds that an important characteristic has been overlooked or cannot be measured systematically. For an omitted variable to bias an estimated race disparity in a pattern-and-practice analysis, it must be associated (i.e., correlated) with both the outcome of interest (in this case the prosecution's peremptory strikes) and the racial characteristics of the persons to whom the disparity relates (in this case the race of the venire members). Justice Kennedy recognized and applied this principle well. First, he noted that venire-member ambivalence about the death penalty and a family history of criminality do not appear to be associated with venire-member race (undercutting the second prong of the dual association rule).¹¹⁸ Second, he notes that the presence of these race-neutral factors does not always result in a peremptory strike (undercutting the first prong of the dual association rule).119 Third, he suggested that "the application of these rationales to the venire might have been selective and based on racial considerations" (undercutting the uniform-application assumption).120 Justice Kennedy's analysis here recommends the one-by-one comparative juror analyses that provide compelling support for the Batson claim in Miller-El II and Snyder. 121

This portion of Justice Kennedy's analysis drew the sharpest disagreement from Justice Thomas (dissenting)¹²² and Justice Scalia (concurring).¹²³ They differed on their perceptions of the nature of the nonracial variables that motivated prosecutorial strikes, the correlation of the variables with venire-member race, and their correlation with the prosecutor's peremptory strikes.

^{116.} Miller-El I, 537 U.S. at 347.

^{117.} Id. at 343.

^{118.} Id.

^{119. &}quot;In this case, three of the State's proffered race-neutral rationales for striking African-American jurors pertained just as well to some white jurors who were not challenged and who did serve on the jury." *Id*.

^{120.} Id

^{121.} See Snyder v. Louisiana, 552 U.S. 472, 483–84 (2008); Miller-El v. Dretke (Miller-El II), 545 U.S. 231, 241–52 (2005). The Court in Miller-El II noted that this comparison need not rely on treatment of "an exactly identical white juror." Miller-El II, 545 U.S. at 247 n.6.

^{122.} Miller-El I, 537 U.S. at 354 (Thomas, J., dissenting).

^{123.} Id. at 348 (Scalia, J., concurring).

The Court also provided guidance on the admissibility and import of anecdotal evidence that might illuminate general matters, such as culture or office policies on proper standards for the use of peremptories. On the issue of historical discrimination, *Miller-El I* introduces useful distinctions among a "culture of . . . bias against" blacks in the District Attorney's Office, a policy of "systematic exclusion" of blacks, and the "motives underlying" the peremptory strikes against black venire members in Miller-El's case. ¹²⁴ In its consideration of the connection between the prosecutorial actions in Miller-El's case and the culture or policy of the District Attorney's Office, the Court notes that both of Miller-El's prosecutors "received formal training in excluding minorities from juries." ¹²⁵

In summation, *Miller-El* resolved a number of significant issues, the most important of which is the relevance in stage three of the *Batson* evidentiary framework of pattern-and-practice evidence initially proffered in support of a prima facie case in stage one. In addition, Justice Kennedy's analysis provides helpful guidance on the relevance and interpretation of statistical evidence of discrimination.

IV. A CASE IN POINT: COMMONWEALTH V. HAROLD WILSON

Commonwealth v. Harold Wilson is one of a number of Pennsylvania cases since 2000 addressing the role of race in the exercise of peremptory challenges by Commonwealth attorneys. 126 In the remainder of this Article, we use the statistical evidence presented in Wilson as an example of effective pattern-and-practice evidence that both follows the evidentiary guidance provided in the Miller-El line of cases and highlights issues relevant to future Batson litigation.

A. PROCEDURAL AND EVIDENTIARY OVERVIEW

In 1989, Harold Wilson, an African-American, was convicted of first-degree murder and sentenced to death for killing three black victims. He was prosecuted by Assistant District Attorney Jack McMahon, an experienced Philadelphia prosecutor, who in voir dire struck 67% (12/18) of the black venire members and 23% (6/26) of the white venire members that he considered.¹²⁷ This represents a 44-percentage point (0.67–0.23) race-of-

^{124.} Id. at 347 (majority opinion); see also Miller-El II, 545 U.S. at 263-65.

^{125.} Miller-El I, 537 U.S. at 347.

^{126.} See, e.g., Commonwealth v. Hutchinson, 25 A.3d 277 (Pa. 2011); Commonwealth v. Ligons, 971 A.2d 1125, 1145–46 (Pa. 2009); Commonwealth v. Clark, 961 A.2d 80, 95–96 (Pa. 2008); Commonwealth v. Marshall, 947 A.2d 714, 722 & n.7 (Pa. 2008); Commonwealth v. Washington, 927 A.2d 586, 610 (Pa. 2007); Commonwealth v. Bond, 819 A.2d 33, 48–49 (Pa. 2002); Commonwealth v. Lark, 746 A.2d 585, 589 (Pa. 2000).

^{127.} A complete breakdown of the racial composition of the jury, proof of how the defense identified the race of the jurors, and the exercise of the parties' peremptory strikes is included in the factual proffer presented by the defense at the *Batson* hearing. *See* Factual Proffer, Part II-A, Source of Information on Race of Jurors at 43–45, Commonwealth v. Harold Wilson, July

venire member disparity that is significant at the .001 level. The ratio of these strike rates is 2.9 to 1 (0.67/0.23).

McMahon accepted four black jurors even though at the close of jury selection he had two remaining peremptories. The proportion of blacks on the jury was 0.33 (4/12) with one additional black serving as an alternate. McMahon also peremptorily struck one Hispanic venire member. Some courts reviewing *Batson* claims would consider these facts conclusive evidence in favor of the *Batson* respondent, thereby defeating the claim.¹²⁸ After all, black venire members maintained a presence on the jury, and McMahon could have eliminated at least two more and did not. The evidence presented below suggests that such a conclusion may be both premature and erroneous.

On Wilson's direct appeal, the *Batson* claim underlay an argument that Wilson's trial counsel was ineffective because he did not object "on *Batson* grounds to the prosecutor's use of peremptory challenges in a discriminatory manner."¹²⁹ One problem with the direct appeal was that Wilson did not know the racial composition of the final jury or the race of two of the venire members struck by McMahon (who turned out to be black).¹³⁰ Subsequently, the court denied the *Batson* claim.¹³¹ In August 1997, Wilson filed a petition seeking relief in a state post-conviction proceeding, alleging that Philadelphia prosecutors violated his rights under the Sixth and Fourteenth Amendments by peremptorily striking jurors on the basis of race and gender.¹³²

Term, 1988, Nos. 3267, 3270, 3271 (Phila. C. P., Crim. Div. Oct. 17, 2002); see also Exhibit D-12 Commonwealth v. Harold Wilson, July Term, 1988, Nos. 3267, 3270, 3271 (complete summary of race of juror information in Wilson's case).

^{128.} See, e.g., United States v. Simon, 422 F. App'x 489, 495 (6th Cir. 2011), cert denied, 132 S. Ct. 351; Bennett v. Gaetz, 592 F.3d 786, 791–92 (7th Cir. 2010); Golphin v. Branker, 519 F.3d 168, 183 (4th Cir. 2008); Aspen v. Bissonnette, 480 F.3d 571, 577–78 (1st Cir. 2007); United States v. Johnson, 182 F. App'x 423, 427–28 (6th Cir. 2006); Bennett v. Bartley, No. 07 C 1975, 2008 WL 4866169, at *6 (N.D. Ill. June 23, 2008), aff'd sub nom. Gaetz, 592 F.3d 786.

^{129.} Commonwealth v. Harold Wilson, 672 A.2d 293, 298 (Pa. 1996).

^{130.} *Id.* at 299. Unfortunately, Pennsylvania law and practice do not preserve information on the racial composition of the venire and the final jury.

^{131.} *Id.* ("The fact that the Commonwealth used 10 of its 20 peremptory challenges for African-American veniremen and a hispanic venireman without more is insufficient to establish a prima facie case that the Commonwealth acted improperly.... Moreover, the Commonwealth argues that there was a neutral reason for each challenge the Appellant cites as improper. Finally, the final racial composition of the jury is unclear from the record. Because Appellant has failed to articulate the basis on which a claim of prejudice exists, trial counsel cannot be deemed to be ineffective.").

^{132.} Petition for Habeas Corpus Relief Under Article I, Section 14 of the Pennsylvania Constitution and Post-Conviction Relief Act, Commonwealth v. Harold Wilson, July Term, 1988, Nos. 3267, 3270, 3271 (Phila. C. P., Crim. Div. August 18, 1997). On his gender discrimination claim under *J.E.B. v. Alabama* ex rel. *T.B.*, 511 U.S. 127 (1994), Wilson alleged that McMahon had used fourteen of the eighteen peremptory challenges he employed in the case to strike female jurors, exercising 3.5 peremptory strikes against women for every

As Wilson's post-conviction proceeding was pending, two new pieces of evidence became available to support his *Batson* claim. First, in April 1997, a 1987 training videotape for Philadelphia prosecutors became public. 193 The policies promoted in the videotape very closely tracked the policies advanced in the training manual discussed in Miller-El II.134 Wilson's prosecutor, McMahon, was the sole presenter on the Philadelphia training tape. McMahon identified with particularity his conception of the best and the worst jurors. 135 The worst jurors according to McMahon are "blacks from the low-income areas" because they are less likely to convict as a result of "resentment for law enforcement [and]... for authority." 136 The tape distinguished, however, between good and bad black jurors on the basis of their age and gender. Indeed, McMahon criticized other prosecutors who viewed all blacks as bad jurors. 137 In McMahon's calculus, the worst ("very bad") black jurors were young men and women¹³⁸ and any who are "real educated."139 These jurors were followed by older black women whom McMahon indicated may be inclined to "identify" with young black males

peremptory strike against a man. *Id.* at 11. He further alleged that the prosecution had peremptorily challenged fourteen of the twenty-three women it had the opportunity to accept or strike (61%), while accepting sixteen of the twenty male jurors it had the opportunity to accept or strike (80%). *Id.* Thus, the Petition argued, "McMahon was 3.04 times more likely to peremptorily strike a female juror than he was a male juror." *Id.* It further argued that "the prosecution used 77.7% of its peremptory strikes against women, despite the fact that only 53.5% of the jurors who could be subject to Commonwealth peremptories were women." *Id.*

Wilson's *Batson* claim was far less developed. At the time he filed his petition, he was able to identify the race of thirty-two of the jurors in the general venire, twenty of whom were white and twelve of whom were black. *Id.* at 12. He alleged that, among these individuals, the prosecution peremptorily struck 58% (seven) of the black jurors and only 20% (four) of the white jurors—a rate that was 2.92 times higher for black jurors. *Id.* Based upon the Pennsylvania Supreme Court's opinion on direct review, Wilson alleged that McMahon had employed half of his eighteen peremptory challenges to exclude black jurors, even though they comprised a "substantially smaller portion of the general venire." *Id.*

- 133. Videotape: Jury Selection with Jack McMahon (DATV Prods. 1987) [hereinafter McMahon Tape], available at http://video.google.com/videoplay?docid=5102834972975877286 (transcript of videotape was introduced as Exhibit D-2 at the evidentiary hearing in Wilson, was introduced in other Pennsylvania cases, and is on file with authors). The Office of the District Attorney of Philadelphia released this video in April 1997. See Loren Feldman, I, the Jury, PHILA. MAG., June 1997, at 21; Former Philadelphia Prosecutor Accused of Racial Bias, N.Y. TIMES (Apr. 3, 1997), www.nytimes.com/1997/04/03/us/former-philadelphia-prosecutor-accused-of-racial-bias.html; Prosecutor's Tape on Juries Results in Mistrial, N.Y. TIMES (Apr. 4, 1997), http://www.nytimes.com/1997/04/04/us/prosecutor-s-tape-on-juries-reults-in-mistrial.html.
- 134. See Miller-El v. Dretke (Miller-El II), 545 U.S. $231,\ 263-64$ (2005) (discussing the training policies).
 - 135. McMahon Tape, supra note 133, passim.
 - 136. Id. at 47-48.
 - 137. Id. at 56.
 - 138. Id. at 57.
 - 139. Id. at 55.

(the "maternal instinct"). ¹⁴⁰ By contrast, McMahon said that black men have less parental "instinct" and were a "little bit more demanding and a little bit more [into] law and order." ¹⁴¹ Among black men, he distinctly preferred older men (over seventy) from the South because they were of a "different era and different time and [had a] different respect for the law." ¹⁴² McMahon also instructed the prosecutors who attended his lecture to always keep track of the race of potential venirepersons, to "count them. Count the blacks and whites. You want to know at every point in that case where you are." ¹⁴³

As a defense against *Batson* claims, McMahon recommended that "the best way to avoid any problems . . . is to protect yourself." ¹⁴⁴ The way to do this was to question black jurors "at length" and record contemporaneous documentation of "legitimate" reasons as each black is struck. ¹⁴⁵ With these reasons at hand, a prosecutor who is challenged later in the trial would be able to present nonracial reasons for the strikes against blacks. ¹⁴⁶

Our systematic investigation of the prosecutorial use of peremptories in all Philadelphia capital cases in which we could locate data on the prosecutorial use of peremptories provided the second evidentiary development in Wilson's case. ¹⁴⁷ This investigation provided the statistical evidence discussed in detail below. ¹⁴⁸ By October 1997, Wilson's lawyers had

^{140.} Id. at 56.

^{141.} *Id*.

^{142.} *Id.* McMahon argues that black men from the South are "excellent." *Id.* Contrary to what one might have expected, McMahon's goal was not an all-white jury, but rather one with three or four blacks. *Id.* at 58–59. Although he did not address this concern, there is an obvious *Batson* problem with an all-white jury in a county with 35% black venire members. Rather he argued that a reasonable representation of blacks on the jury was necessary to protect against possible jury nullification by non-black jurors in black-on-black homicides, who may not care as much about the victim or identify with the state's witnesses. *Id.* at 58–61.

^{143.} *Id.* at 66–67. Counting was so important that McMahon advised young district attorneys to invent reasons to leave the courtroom to ascertain the racial composition of upcoming venirepersons "if you lose track or you're not sure of what's going on." *Id.* at 67.

^{144.} Id. at 69.

^{145.} *Id.* at 70 ("[O]n this little sheet that you have, mark something down that you can articulate later . . . if something happens"); *id.* at 71 ("[Y]ou may want to ask more questions of *those people* so it gives you more ammunition to make an articulable reason as to why you are striking them, not for race." (emphasis added)).

^{146.} Id. at 71.

^{147.} Catherine Grosso did not participate in this research.

^{148.} This study initially located data on 15 capital cases prosecuted by McMahon, as well as data on 100 other capital cases prosecuted by the office of District Attorney Ronald Castille, whose tenure embraced the *Wilson* prosecution, and 120 and 183 cases prosecuted, respectively, in the administrations of District Attorney Edward G. Rendell and Lynne Abraham from 1981 to 1997. These data all documented race disparities that were consistent with the disparities documented in the Castille administration.

obtained information on jury strikes by McMahon across sixteen prosecutions. 149

With this information and a transcription of the McMahon videotape, Wilson's lawyers filed a supplemental post-conviction petition devoted entirely to the jury discrimination claims. Wilson argued that McMahon had peremptorily struck black venirepersons 72% of the time he had an opportunity to do so (and nearly 73% of the time in homicide cases), while striking venirepersons who were not black barely 16% of the time (and 17% of the time in homicide cases). He pled, based upon this data, that an African-American venireperson called for jury duty in a homicide prosecution by Mr. McMahon was nearly 4.25 times more likely to be peremptorily struck than a venireperson who was not black. 152

Judge Temin originally dismissed Wilson's *Batson* claim as having been previously litigated on direct appeal. On appeal, the Pennsylvania Supreme Court reversed and remanded in light of the new evidence

^{149.} Fourteen of these cases were homicide cases; the other two were nonhomicide felony cases for which Wilson had access to the jury selection transcript. Wilson's lawyers then argued to the court that these cases did not exhaust the universe of homicide cases prosecuted by Mr. McMahon, citing a statement District Attorney spokesperson William Davol made during the course of McMahon's 1997 campaign for District Attorney that he had obtained 36 jury murder convictions during his tenure from 1983 to 1990 in the District Attorney's Office. See L. Stuart Ditzen et al., Avoid Black Jurors, McMahon Said, PHILA. INQUIRER, Apr. 1, 1997, at Ao1. With this additional information, Wilson's counsel sought discovery of the identity of all homicide prosecutions he had not been able to independently identify that McMahon had tried to a jury.

^{150.} Supplement to Petition for Post-Conviction Relief Under Article I, Section 14 and Post-Conviction Relief Act, Commonwealth v. Harold Wilson, July Term, 1988, Nos. 3267, 3270, 3271 (Phila. C. P., Crim. Div., October 30, 1997).

^{151.} Id. ¶ 3.

The supplemental petition also argued that the statistical disparities were even more pronounced in the case of African-American women. The data from his sixteen cases indicated that McMahon peremptorily struck African-American women more than 75% of the time, as compared to only 20% of non-African-American women and 12% of non-African-American men. From this data, Wilson pled that McMahon struck African-American women at more than six times the rate of non-African-American males. Id. ¶ 4. At the time of the supplemental petition, the study had obtained information on prosecutorial strikes and acceptances of jurors in 88 of the Castille-administration capital prosecutions. This encompassed more than 1900 jurors whose race we could identify to a 98% or greater level of certainty. Wilson pled that these strikes exhibited "a consistent policy and practice of striking African Americans and women from venires," id. ¶ 16, and that in those prosecutions, the District Attorney's office struck African-American venirepersons 58% of the time, while striking non-black jurors only 22% of the time. Id. Overall, Castille-administration prosecutors peremptorily struck African-American women 62% of the time and African-American males 51% of the time. Id. ¶ 17. By contrast, they struck only 25% of other women and only 20% of other men. Id. Thus, Wilson argued, prosecutors peremptorily struck black jurors at more than two-and-one-half times the rate of non-black jurors during the Castille administration and struck African-American women with more than triple the frequency of men who were not African American. *Id.* ¶¶ 16–17.

^{153.} Commonwealth v. Harold Wilson, July Term, 1988, Nos. 3267, 3270, 3271, slip op. at 9-11 (Phila. C. P., Crim. Div., Jan. 31, 2000).

contained in the McMahon tape.¹⁵⁴ On remand, an issue arose over the relevance of the McMahon cases other than Wilson's own case, and the relevance of the cases prosecuted by other district attorneys during the Castille administration. Judge Temin, in whose court the action was pending, ruled that data from the other McMahon cases were relevant.¹⁵⁵ At the same time, Judge Temin ruled, on grounds of relevancy, that she would not consider cases tried by prosecutors other than McMahon during the Rendell and Castille administrations.¹⁵⁶ Nor would she consider evidence of cases from the Abraham administration. The District Attorney's Office then unsuccessfully sought to have the Pennsylvania Supreme Court limit the evidence solely to the jury selection in Wilson's case.¹⁵⁷

After several rounds of pleadings and reports by experts for both sides, Judge Temin ruled that the McMahon training videotape established a prima facie case and directed that the hearing focus on stages two and three of the *Batson* framework, with Prosecutor McMahon as the key witness. ¹⁵⁸ In a two-day evidentiary hearing in December 2002, Prosecutor McMahon denied that race had been a factor in his use of peremptories in *Wilson*. ¹⁵⁹

- 154. Commonwealth v. Harold Wilson, No. 294 Capital Appeal Docket (Pa. Apr. 26, 2000) (per curiam) (on file with author) ("[T]he request for a remand for an evidentiary hearing, findings of fact and conclusions of law relating to petitioner's, Harold Christopher Wilson's, claims of discrimination in the jury selection process is granted.").
- 155. In addition, she ordered the state to give Wilson's counsel the names and docket numbers of all McMahon cases not in our original database. Post-Conviction Relief Act Transcript 9/7/00, at 46, Wilson, July Term, 1988, Nos. 3267, 3270, 3271. This eventually increased the databases of McMahon cases to thirty-five. See Baldus, et al., Supplemental Report No. 1 Concerning Race and Gender Discrimination in the Prosecutorial Use of Peremptory Strikes in Philadelphia Capital Trials, Appendix A (July 25, 2001), Wilson, July Term, 1988, Nos. 3267, 3270, 3271.
- 156. The Pennsylvania Supreme Court had ruled in *Commonwealth v. Basemore*, 744 A.2d 717, 731 (2000), that the McMahon tape was relevant as circumstantial evidence of McMahon's intent but would not, itself, "suffice to establish a pattern or practice of discrimination on the part of the Office of the District Attorney in general or by assistant district attorneys other than Mr. McMahon."
- 157. See Commonwealth v. Harold Wilson, No. 294 Capital Appeal Docket (Pa. Apr. 26, 2000) (per curiam) (on file with author) (Petition to Clarify Remand Order Pursuant to Rule 2591(b)). In response, Wilson argued the relevance of statistical and pattern-and-practice evidence and that the remand order was clear on its face. Response to District Attorney's Interlocutory Motion to Limit Evidentiary Hearing (filed Jan. 23, 2001). The Pennsylvania Supreme Court issued a per curiam order on February 12, 2001, denying the prosecution's motion. Commonwealth v. Harold Wilson, No. 294 Capital Appeal Docket (Pa. Feb. 12, 2001) (per curiam).
- 158. Post-Conviction Relief Act Transcript 9/7/00 at 14-16, Wilson, July Term, 1988, Nos. 3267, 3270, 3271.
- 159. When asked about his training tape, McMahon explained that his stated concern about "black" venire members was a proxy for a broad concern about individuals with low "socioeconomic status," who often lacked respect for law and authority and harbored a dislike for police. McMahon also attempted to offer specific race-neutral explanations for each of his twelve peremptory strikes against black venire members. He was handicapped in this regard because he had selected the jury more than ten years earlier and his contemporaneous notes

B. STATISTICAL EVIDENCE PRESENTED IN THE CASE

This Subpart presents, in more detail, the pattern-and-practice evidence in Wilson's case. We view this data against the properties of the ideal model of proof presented above and explain how we dealt with the shortfalls from that ideal that inevitably occur in this type of empirical research.

1. The Rule of Relevancy

The rule of relevancy applies within each case and between cases. Focusing first within cases, reliable inferences about prosecutorial motivations require that the analysis of prosecutorial strikes focuses exclusively on prosecutorial decisions in prosecutorial strike-eligible cases. For each case, this required excluding from the analysis venire members struck for cause or struck by defense counsel before Prosecutor McMahon could consider them for a possible strike.

A number of courts have deviated from this approach and contrast the number and proportion of blacks on the venire with the number and proportion on the jury. 160 As discussed above, this overall impact analysis is not consistent with the rule of relevancy because it embraces the impact of defense counsel's peremptory strikes. Because of the courts' continuing

contained biographical information about the jurors but did not record the reasons for his strikes. Rather he refreshed his memory by reading the venire-member questionnaires and notes of the voir dire question and answer, which indicated the questions of the court and counsel and the venire member responses. For some venire members, he expressed certainty about the basis for his strike. These typically related to a criminogenic history in the venire member's family (e.g., a brother in jail) or the venire member's employment in the "social welfare" sector.

For several other venire members, he was less certain but believed that the voir dire questions and venire-member answers would have caused him concern about a lack of "stability" in the person's personal life, family life, or employment; or lack of character. For at least three venire members, he admitted that the documents could not refresh his recollection and he could not present clear and specific race-neutral explanations for his strikes. For instance, he described his strike of an elderly African-American woman as "fall[ing] in the category that I'm not sure." Post-Conviction Relief Act Transcript 12/11/02, at 35, Wilson, July Term, 1988, Nos. 3267, 3270, 3271. The Commonwealth later argued that McMahon "gave credible nonracial reasons for nine of his strikes," Post-Conviction Relief Act Transcript 12/19/02, at 22, Wilson, July Term, 1988, Nos. 3267, 3270, 3271, implicitly admitting that he had failed to do so for three others. For these jurors, he explained that the strikes must have been on the basis of "intangibles" such as how well the venire member was dressed, his or her overall appearance, or hesitancy in answering questions. See, e.g., Post-Conviction Relief Act Transcript 12/11/02 at 32-35, 37, 43-45, Wilson, July Term, 1988, Nos. 3267, 3270, 3271. Cross-examination and final argument of counsel challenged these assertions by pointing out that the Commonwealth had accepted a number of white venire members with similar characteristics. See, e.g., id. at 26-32 (cross-examination); Post-Conviction Relief Act Transcript 2/19/02, at 13-20, Wilson, July Term, 1988, Nos. 3267, 3270, 3271 (closing argument).

160. See, e.g., Franklin v. Sims, 538 F.3d 661, 666 (7th Cir. 2008) (noting with approval the reliance of the Illinois Appellate Court on this approach); Golphin v. Branker, 519 F.3d 168, 183 (4th Cir. 2008); Aspen v. Bissonnette, 480 F.3d 571, 577 n.6 (1st Cir. 2007); United States v. Sangineto-Miranda, 859 F.2d 1501, 1521-22 (6th Cir. 1988).

interest in the racial composition of the finally selected jury, however, the substantive analyses in *Wilson* also reported the overall impact data reflecting the combined impact of both the prosecutorial and defense counsel's use of peremptories.

Wilson's counsel presented analyses of jury selection in Wilson's case and also offered evidence to establish a pattern and practice of race discrimination in the use of peremptory challenges in (a) 34 cases tried by Prosecutor McMahon in addition to *Wilson*; (b) 115 cases prosecuted during the administration of District Attorney Castille, which was responsible for the Wilson prosecution; (c) 120 cases tried in the administration of District Attorney Rendell, who preceded Castille; and (d) 183 tried in the administration of District Attorney Abraham, who succeeded Castille. All of these cases constituted the intended universe of the study, referred to above, that we commenced in 1997. Our position was that each level of analysis passed the rule of relevancy in that it had the capacity to enhance or diminish an inference that race was a motivating factor in the exercise of peremptory challenges in Wilson's case.

Wilson's post-conviction proceeding in state court, Commonwealth contested the relevance of evidence based on the broader universe of cases. This case preceded Miller-El and the Court had provided little guidance before Miller-El about the appropriate scope of pattern-andpractice evidence. As noted above, however, Miller-El I indicates that all of the Castille administration cases, including McMahon's, are relevant to evaluating the strength of the inference of discrimination.¹⁶¹ Title VII law also provides support for this conclusion. 162 It provides that decisions made by decision makers in different offices of the same corporate defendant sometimes may be considered together to infer corporate policy for the entire organization.¹⁶³ If McMahon's other cases, and the other Castille administration cases, show no race effects, the argument is strengthened that the race disparity estimated in Wilson was a statistical fluke. On the other hand, consistent findings of race effects adverse to black venire members across these cases support an inference of a policy and practice of racial bias, which draws into question the credibility of McMahon's raceneutral explanations offered to explain his peremptory strikes against the individual black venire members in Wilson.

This logic also suggests that cases from the Rendell and Abraham administrations are relevant. A finding of no race effects in the other two administrations would support an inference that a policy of race discrimination was peculiar to the Castille administration; similarly,

^{161.} Miller-El v. Cockrell (*Miller-El I*), 537 U.S. 322, 346–47 (2003) (noting that district-wide evidence "of course, is relevant" to the case).

^{162.} Cf. 2 LINDEMANN & GROSSMAN, supra note 11, at 2286.

^{163.} Id.

consistent findings of race discrimination across either the Rendall or Abraham administrations would speak volumes about the depth and strength of the bias against black venire members in Philadelphia and its likely impact on McMahon's strikes in *Wilson*.

As noted above, Judge Temin ruled that the universe of cases would be strictly limited to the capital cases tried by McMahon and that the other capital cases tried in the Castille administration, as well as all cases tried in the Rendell and Abraham administrations, were not relevant. Accordingly, the reports we prepared for *Wilson* were limited to statistical evidence on *Wilson* and the other cases tried by Prosecutor McMahon. However, in this Article, consistent with the teaching of *Miller-El* and the Title VII cases, we present data on a broader universe of capital cases from all three administrations of the office of the Philadelphia District Attorney between 1981 and 1997.

2. A Representative Sample of Relevant Cases

An ideal model of proof in this context would be based on an analysis of venire members from all cases in our intended universe of 463 capital prosecutions from 1981 to 1997. Our source of information on this universe of Philadelphia capital cases was a master list of first-degree murder cases maintained by the Administrative Office of the Pennsylvania Courts. However, the files of many of the capital cases could not be located. Specifically, the larger study includes only 68% (317/463) of the universe of the capital cases of which we are aware. As long as the reason for a shortfall of cases or other data is a completely random event, it may be safe to proceed on the basis that the remaining cases constitute essentially a random sample of cases. (It would be important to consult with a statistical expert in this situation. In our case, we determined the cause—i.e., lost files—to be a random event and proceeded on this basis.)

For the McMahon cases, our initial sample consisted of 15 cases that emerged in the sample described above. Aside from that sample, we had no knowledge of other capital cases McMahon had tried. As the litigation progressed, Judge Temin ordered the Commonwealth to produce a list naming all McMahon prosecutions of which it was aware. This produced a list of 39 McMahon homicide prosecutions, from which we were able to locate case files with the needed information in 20 more cases. Our final sample of McMahon cases consisted, in addition to *Wilson*, of 19 capital prosecutions, 8 noncapital homicide cases, and 7 nonhomicide cases.

3. Valid and Complete Data on All Relevant Variables

An ideal model of proof is based on an analysis of valid data for all relevant variables. In this research, the list of relevant variables included name, strike eligibility, final status, race, gender, and age. In addition, we collected information on venire-member residential address, education,

occupation, and venire-members' answers to questions posed by the court to the entire venire at the outset of the voir dire ("questions answered data").

We obtained this information from court records, voter registration rolls, and census data. On the basis of these data, we produced "98% reliable" estimates¹⁶⁴ for the race of 75% of the venire members, for the gender of 97% of the venire members, and for the age of 83% of the venire members. This estimation procedure is described in the lead article on related research conducted in Philadelphia by David Baldus and George Woodworth. 166

C. Valid Measures of the Practical and Statistical Significance of Black Venire Member Race Disparities

We rely principally on what we consider to be the most probative measures of disparate treatment in the prosecutorial use of peremptories. As suggested by Justice Kennedy's analysis in *Miller-El I*, both measures are comparative. ¹⁶⁷ The first rests on a contrast between prosecutorial strike rates exercised against black and non-black venire members. The second is a contrast between prosecutorial strike rates after adjusting for race-neutral factors, both one at a time and collectively. These are referred to as unadjusted and adjusted disparities, respectively. The contrast is expressed first as an arithmetic difference between the two rates.

1. Unadjusted Black Venire Member Race Disparities¹⁶⁸

We first consider the unadjusted race disparities in Wilson's case. As noted above, the most probative measures are based on contrasts between the prosecutorial strike rates of black and non-black venire members. The data in Figure 1, Column A, document a 44-percentage point disparity (0.67–0.23) between the two rates. This means that the average black venire member's chance of being struck was 44-percentage points higher than the average non-black venire member. The ratio between those rates is 2.9 (0.67/0.23) meaning that the average black venire member's risk of being struck was nearly three times higher than the average non-black venire member. Both disparities are statistically significant beyond the 0.006 level,

^{164.} By 98% reliable estimates, we mean that if we estimate a venire member's race to be black or non-black, there is a 98% probability that they are black or non-black, as the case may be.

^{165.} The age groups are young (18–29), mid-age (30–55), and older (above 55).

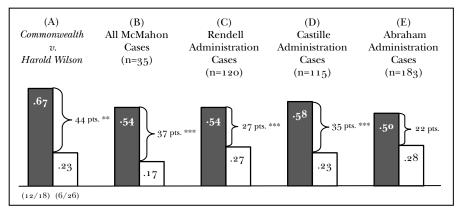
^{166.} See Baldus et al., supra note 40.

^{167.} Miller-El v. Cockrell (Miller-El I), 537 U.S. 322, 331 (2003).

^{168.} By "unadjusted" we mean that the disparity does not control for or take into account other factors that may influence peremptory strike rates. In further analyses presented below, we report race disparities that control for gender and age, and gender disparities that control for race and age. We also estimate disparities after adjustment for the race of the defendant and victim as well as the district attorney administration in which the case was tried.

which means that disparities of that magnitude would occur by chance in an evenhanded system fewer than 1 in 6,000 times.

 $FIGURE\ 1$ $UNADJUSTED\ RACE\ DISPARITIES\ IN\ THE\ PROSECUTORIAL\ USE\ OF\ PEREMPTORY\ STRIKES$ (The bars represent prosecutorial strike rates against black and non-black venire members.)



- ** Denotes a statistically significant disparity at the .01 level.
- *** Denotes a statistically significant disparity at the .001 level.

We also apply another relevant, although less focused, measure of disparate treatment that is sometimes used in the judicial evaluation of *Batson* claims. It contrasts the proportion of blacks among (a) prosecutorial strike-eligible venire members, and (b) venire persons peremptorily struck by the Commonwealth. The contrast here is between 0.41 (18/44), the proportion of blacks among McMahon's strike-eligible venire members, and 0.67 (12/18), the proportion of blacks among all of McMahon's peremptory strikes. This 26 percentage point difference (0.67–0.41) is also statistically significant (p = 0.05). In practical terms for the *Wilson* venire members, on the basis of McMahon's overall strike rate of 0.41, one would

^{169.} See, e.g., Lark v. Sec'y Pa. Dep't of Corr., 645 F.3d 596, 620 (3d Cir. 2011); Coombs v. Diguglielmo, 616 F.3d 255, 262 (3d Cir. 2010); Bennett v. Gaetz, 592 F.3d 786, 791 (7th Cir. 2010); United States v. Grice, 335 F. App'x 924, 928 (11th Cir. 2009); McGahee v. Ala. Dep't of Corr., 560 F.3d 1252, 1257–59 (11th Cir. 2009); Dungen v. Estep, 311 F. App'x 99, 104 (10th Cir. 2009); Reed v. Quarterman, 555 F.3d 364, 368 (5th Cir. 2009); Paulino v. Harrison, 542 F.3d 692, 695, 703 (9th Cir. 2008); Franklin v. Sims, 538 F.3d 661, 666 (7th Cir. 2008); Golphin v. Branker, 519 F.3d 168, 183 (4th Cir. 2008); United States v. Ervin, 266 F. App'x 428, 431–32 (6th Cir. 2008); Aspen v. Bissonnette, 480 F.3d 571, 576–77 (1st Cir. 2007); United States v. Abdush-Shakur, 465 F.3d 458, 461, 468, 470 (10th Cir. 2006); United States v. Nelson, 450 F.3d 1201, 1205, 1207 (10th Cir. 2006); Williams v. Runnels, 432 F.3d 1102, 1107 (9th Cir. 2006); United States v. Ochoa-Vasquez, 428 F.3d 1015, 1045–47 (11th Cir. 2005); United States v. Stephens, 421 F.3d 503, 512–14 (7th Cir. 2005); Bennett v. Bartley, No. 07 C 1975, 2008 WL 4866169, at *6 (N.D. Ill. June 23, 2008), aff'd sub nom. Gaetz, 592 F.3d 786; People v. Ross, No. E038158, 2006 WL 3734965, at *4 (Cal. Ct. App. Dec. 19, 2006).

have expected to see 7 of the 18 black venire members struck, which is 5 fewer than the 12 actually struck. Moreover, on the basis of McMahon's 0.23 strike rate against non-black venire members, one would have expected in a race-neutral system to see 4 black venire members struck, which is 8 fewer than the 12 actually struck.¹⁷⁰

We also identified "target groups" of venire members on the basis of the documented strike rates, the McMahon tape, and the literature. Specifically, we defined twelve subgroups of venire members based on a combination of race, gender, and age and compare and contrast the prosecutorial strike rates for each group.

We referred above to a measure of the overall impact of both sides' use of peremptories on the racial composition of the jury finally seated. This measure rests on a comparison of the proportion of blacks on the entire venire with the proportion of blacks on the jury finally seated. In *Wilson*, blacks constituted 34% (18/53) of the venire members who were not struck for cause and 33% (4/12) of the seated jurors. This measure indicates that defense counsel's peremptory strike effort, which directed all 20 of his strikes against non-black venire members, was effective in maintaining a level of representation on the jury that mirrored the composition of the entire strike-eligible venire.¹⁷¹

We also presented unadjusted disparities among all of the McMahon cases of which we are aware, as well as disparities among the capital cases prosecuted in the Rendell, Castille, and Abraham administrations. These are presented in Columns B–E of Figure 1.

The estimates provide strong evidence of a pattern and practice of purposeful race discrimination in the selection of jurors over 20 years. With p-values well under the 0.05 level, it is very unlikely that the disparities in McMahon's cases, in Column B, are a product of chance. The data support a similar conclusion with respect to disparities in Columns C, D, and E.

2. Adjustments for Race-Neutral Factors One at a Time

In any analysis of race disparities and the inferences that they can support, it is important to test rival hypotheses that the documented disparities are the product of race-neutral factors. This was a matter of obvious concern to Justice Kennedy in his *Miller-El I* opinion for the court.¹⁷²

Disparities that have been adjusted for the impact of such factors are known as "adjusted" disparities of effects. Attention to adjusted effects is standard practice in Title VII pattern-and-practice cases, and we believe that

^{170.} These results do not necessarily translate into 5 or 8 more jurors since some of the blacks rejected by the Commonwealth that would have been accepted in an evenhanded system may have been struck by defense counsel.

^{171.} Defense counsel's strike rate against non-blacks was 0.65 (20/31) compared to 0.00 (0/12) against black venire members.

^{172.} See supra text accompanying notes 106–08, 111–12.

this jurisprudence provides useful guidance in the *Batson* context.¹⁷⁸ In employment cases, the basic rule is that the evidence of a pattern and practice of discrimination offered to make out a prima facie case should be adjusted for important qualifications that the employer is known to apply in its decision making.¹⁷⁴ If the plaintiff can document substantial and significant race effects while controlling for the most important job qualifications as part of his or her prima facie case, the defendant–employer, in its rebuttal, may introduce variables for additional qualifications in an effort to explain away the race effects documented in the prima facie case. If the evidence offered on the prima facie case falls short of the ideal, it may be rejected or accepted with a concomitant reduction in the defendant's burden in rebuttal.¹⁷⁵

As noted above, the *Batson* jurisprudence, including *Miller-El*, perceives unadjusted disparities as a sufficient basis for a prima facie case. However, Miller-El reflects a perception that a pattern and practice of race effect documented in an adjusted analysis would have greater weight in the credibility analysis at stage three. Thus, the selection of "control variables" is also important in the Batson concept. For Batson cases in general and in Wilson's case in particular, we relied upon substantial jurisprudence, academic literature, and a practical "how to" literature on jury selection, which provides guidance on the identification of race-neutral factors for use as controls. In addition, in Philadelphia, an official questionnaire and standard voir dire questions put to the venire members by the court reflect a consensus on some core factors of concern to both sides. We can also obtain important guidance from the McMahon training tape and the empirical study we conducted of voir dire in 317 capital cases tried between 1981 and 1999.176 Finally, we included in the Wilson analysis variables for the socioeconomic status of the venire members which the Commonwealth and Prosecutor McMahon allege are important determinants of his and other prosecutors' use of peremptory challenges.¹⁷⁷

The threshold inquiry in such cases is to identify the qualifications that are most important. Another relevant source for information on the issue is testimony of the actors involved in the case. Prosecutor McMahon tied his use of peremptories to a concern about low-income jurors. Although the venire-member questionnaires and voir dire questions do not address the income of venire members, it was possible for Prosecutor McMahon in voir

^{173. 2} LINDEMANN & GROSSMAN, supra note 11, at 2297–302 (discussing the use of regression analysis).

^{174.} Id . at 2298 (discussing the analyses at issue in Bazemore v. Friday, 478 U.S. 385 (1986)).

^{175.} Id. at 2297-302.

^{176.} See Baldus et al., supra note 40. Catherine Grosso participated in this research only as a research assistant.

^{177.} See supra note 159 (discussing McMahon's theories).

dire to gauge a venire member's income by his or her appearance or place of residence. To test the hypothesis, we developed two measures on income based on the neighborhood of the venire member. The first is the proportion of families in the census block-group of the venire member's residence who had income levels below the poverty line in 1989. The second measure is the median 1990 family income in the census block-group of the venire member's residence. We applied these measures to each venire member for whom we could identify his or her census block-group of residence.¹⁷⁸

Based on similar work with these and other sources of information, we identified the following controls for analysis: type of prosecution; District Attorney administration; venire member race, gender, age, occupation, and education; race of defendant; race of victim; level of poverty and median income for venire-member neighborhood of residence; and question answered data.

We then introduced controls for race-neutral factors one at a time and in discrete combinations (for example, gender and age). We introduced a report, tables, and figures presenting these analyses to the court. In each instance we also presented measures of statistical significance (p-values).

None of these analyses refuted the unadjusted findings reported above. Race continued to play a significant role in the exercise of peremptory challenges. Presenting controls one at a time has the advantage of being easy to present and explain to an audience unfamiliar with statistical analyses.¹⁷⁹ This approach, however, still lacks the full complexity of decision making, which often considers multiple factors at once.¹⁸⁰ As a result, our next step was to consider the combined significance in a logistic multiple regression analysis that controls simultaneously for the most important race-neutral venire-member characteristics.

3. Race Disparities Estimated After Adjustment for Venire-Member Characteristics Simultaneously in a Logistic Regression Analysis

Multivariate-analysis results provide solid evidence of how important specific race-neutral factors are in general in the prosecutor's decision making and whether the prosecutor gave the same weight to the factor in his or her evaluation of black and non-black venire members. If a factor alleged

^{178.} This information was missing for about 10% of the cases either because we could not obtain a residential address for the venire member or the address could not be linked to a census block-group.

^{179.} See, e.g., Catherine M. Grosso & Barbara O'Brien, A Stubborn Legacy: The Overwhelming Importance of Race in Jury Selection in 173 Post-Batson North Carolina Capital Trials, 97 IOWA L. REV. 1531 (2012).

^{180.} Indeed, the Philadelphia District Attorney's Office has itself argued against juror comparison based upon individual characteristics taken one at a time because no two jurors are exactly alike and multiple factors may have influenced a prosecutor's decision to strike or accept a juror. *See, e.g.*, Hardcastle v. Horn, 332 F. App'x 764, 766 (3d Cir. 2009).

as a race-neutral factor in a case in fact emerges as an important determinant in the prosecutor's overall decision making, that evidence enhances the prosecution's assertion that it was a motivating factor in her specific strike of a specific black venire member. However, a finding that a race-neutral factor alleged to explain a specific strike does not emerge as a generally important factor calls into question the assertion that it was a determinant of a specific strike. Similarly, if the data reveals that a factor appears to have been given more weight in striking blacks than non-blacks, an argument that it was a factor with respect to a specific black venire member is diminished.

Accordingly, we computed a logistic regression model that included variables for the race, gender, and age of the venire members; any of the variables for venire-member occupation, education, and questions answered data; and the level of poverty in the venire member's neighborhood of residence that entered the model in a forward stepwise logistic regression procedure at the 0.10 (or less) level of significance.¹⁸¹ Two occupation variables, four questions answered variables, and the variable for the level of poverty in the venire member's neighborhood entered this analysis, the results of which are presented in Table 1. After controlling for these additional variables, the race and gender variables remained substantial and statistically significant. On average, the odds of a black venire member's being struck were approximately 15 to 19 times higher than the odds of a non-black being struck.¹⁸²

^{181.} Variables entered the model at the 0.10 level but were removed if the p-value rose above 0.15 in a subsequent stage of the analysis, although variables so removed could subsequently reenter the model again at the 0.10 level or less.

If the value for a variable for venire-member race, gender, age, education, occupation, neighborhood poverty, or questions answered was missing, we coded an applicable "missing-data" variable to "1" for that venire member and recoded the underlying variable for which the data was missing to "o" for that venire member.

^{182.} See Table 1, Part B.1(a) & (b).

TABLE 1

 $\label{logistic Regression Model of Prosecutor McMahon's Use of Peremptory Challenges in 35 Philadelphia Criminal Cases $1981-1990$ (This unit of observation is the individual venire member eligible for a peremptory strike by Prosecutor McMahon) (n = 1,142)$

	A	В	С					
		Odds	Logistic					
		Multiplier ¹	Coefficient ²					
		_	(p-value)					
Part A.	Part A. Legitimate venire member (V.M.) characteristics							
1. Oc	cupation							
a.	Professional and Managerial (10)3	7.0	1.9 (.001)					
b.	V.M. Outside the Workforce (60)	2.0	.68 (.05)					
c.	All Other Occupations (reference	1.0	NA					
	category)4							
d.	Occupation Unknown	2.4	.89 (.03)					
2. Vei	nire Member (V.M.) Affirmative Answers to							
Voi	ir Dire Questions							
a.	V.M. with Prior Jury Service (200)	.35	-1.1 (.006)					
b.	V.M., Close Friend, or Relative Accused of	6.3	1.8 (.003)					
	Criminal Activity (400)							
c.	V.M., Close Friend or Relative Worked in	.62	48 (.06)					
	Law Enforcement (600)							
d.	V.M. Expressed Concern About Imposing	8.4	2.1 (.01)					
	a Death Sentence (1300) or Expressed a							
	View Contrary to Law on Another Subject							
	(800)							
e.	V.M.'s Answers Unknown	1.001	.001 (.99)					
3. Vei	nire Member's Age							
a.	Young: 18-29	2.1	.75 (.001)					
b.	Mid-age: 30-55 (reference category)	1.0	NA					
c.	Older: 56+	.61	48 (.06)					
d.	Age Unknown	1.3	.29 (.25)					
4. Vei	nire Member's Income							
a.	Proportion of V.M.'s Neighbors With	2.9^{4}	1.1 (.08)					
	Family Income Below the Poverty Line							
b.	Neighborhood Income Level Unknown	.61	.50 (.50)					

TABLE 1 (cont.)

	A	В	С			
		Odds	Logistic			
		Multiplier ¹	Coefficient ²			
			(p-value)			
Part B. Illegitimate/suspect venire-member characteristics						
1.	Venire Member's Race					
	a. Black (1= black)	15.6	2.7 (.0001)			
	b. Proportion Black (estimated 2.1%-97.9%)	18.4^{5}	2.91 (0001)			
	c. Race of Venire Member Unknown and	3.8	1.3 (.09)			
	Unestimated (1=unknown and					
	unestimated)					
2.	Venire Member's Gender					
	a. Female	1.6	.49 (.002)			
	b. Male (reference category)	1.0	NA			
	c. Gender unknown	1.6	.47 (.22)			

- 1. The odds multiplier indicates the extent to which, on average, the odds of being struck are enhanced or diminished when the venire-member characteristic in Column A is present. The odds multiplier is based on the regression coefficient in Column C.
- 2. The coefficients in this analysis were estimated in a logistic regression analysis of venire-member strike rates. In addition to the variables included in this table, the model includes case specific variables that indicate with which of the 35 cases in the study each venire member was associated. The inclusion of these case level variables minimizes the risk that extremely high or low strike-rates in a single case may bias the overall estimates of the average impact of the explanatory variables in Column A.
- 3. The numbers in parentheses after the variable description refer to codes in the Data Collection Instrument.

This odds multiplier indicates the average change in the odds of being struck between venire members living in hypothetical neighborhoods with no families below the poverty line and venire members residing in hypothetical neighborhoods with all families with incomes below the poverty line. The odds multiplier for a contrast between less extreme neighborhoods in terms of families with incomes below the poverty line, e.g., .25 v. .10, is a prorated version of this number.

4. The odds multiplier indicates the average change in the odds of being struck between venire members residing in hypothetical neighborhoods with no black neighbors and venire members residing in hypothetical neighborhoods with all black neighbors. The odds multiplier for a contrast between less extreme neighborhoods in terms of the percentage of black neighbors, e.g., .25 v. .10, is a prorated version of this number.

To test further the role of race in the exercise of peremptory challenges, we also modified this process in various ways consistent with the rule of relevancy. For example, we forced the analysis to include all of the education, occupation, questions answered variables, as well as the neighborhood poverty-level variable, without regard to whether they showed a statistically significant relationship to the prosecutorial strike rates. Alternately, we replicated the two regression analyses described above but limited them to the twenty-four cases in which we had data on venire-member questions answered. None of these analyses suggested that the race finding was the product of chance.

Our final method for assessing race and gender disparities after adjustment for facially neutral venire-member characteristics employs a measure of prosecution "strike-proneness" that is based on the results of the regression analysis presented in Table 1. For this purpose, we used the coefficients for the facially neutral venire-member characteristics estimated in the Table 1 regression analysis to compute for each venire member an estimated probability that they would be struck by Prosecutor McMahon. This means that the race and gender of the venire members were *not* taken into account in computing these probabilities.¹⁸³ We refer to these estimates as a measure of prosecution "strike-proneness" based on facially neutral venire-member characteristics. With these, we created a seven-level scale of venire member strike-proneness that we used to evaluate the role of race in decision making.¹⁸⁴

Figure 2, which presents the results based on this scale, sorts the cases into the seven levels from 1 (low) to 7 (high). For the lowest strike-prone category in Part I, the average strike rate (indicated in the parenthetical over each pair of bars) is 0.13 (Level 1). Contrast this to the 0.91 average strike rate for the most strike-prone venire members at Level 7.185

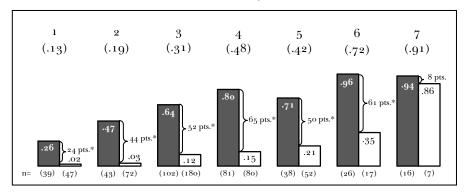
^{183.} We purged the race and gender effects from the model to ensure that the facially neutral variables did not indirectly reflect race and gender effects. The facially neutral veniremember characteristics used for this purpose are age, education, occupation, the level of poverty in the venire member's neighborhood, and answers to questions asked in voir dire.

^{184.} The estimated strike probabilities at each level of the scale were as follows: (1) less than 0.26; (2) 0.26 to 0.299; (3) 0.30 to 0.349; (4) 0.35 to 0.379; (5) 0.38 to 0.409; (6) 0.41 to 0.459; and (7) greater than or equal to 0.46.

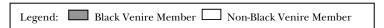
^{185.} The sample sizes and average strike rates for the different levels of the scale in Parts I and II vary somewhat because the cases with missing race or gender, which are excluded from Part I and II, differ as the case may be.

FIGURE 2

VENIRE MEMBER RACE DISPARITIES IN PROSECUTOR McMahon'S USE OF PEREMPTORY CHALLENGES CONTROLLING FOR VENIRE MEMBER AGE, EDUCATION, OCCUPATION, NEIGHBORHOOD POVERTY LEVEL, AND ANSWERS TO VOIR DIRE QUESTIONS IN A REGRESSION-BASED SCALE OF STRIKE-PRONENESS: FROM 1 (LOW PRONENESS) TO 7 (HIGH PRONENESS)



Level of Significance of Race Disparities: *=.001



1. The number in parentheses at the head of each column, for example, .13 in Part A, Column 1, indicates the average strike rate for all of the venire members in that subgroup of cases. The overall race of venire-member disparity adjusted for venire member education, occupation, neighborhood poverty level, and questions answered is 50 percentage points (.64-.14) significant at the .0001 level.

We first examined the distributions of black venire members across the different levels of the strike-proneness scale. They indicate that there is a significant association between venire member strike-proneness and race. Specifically, we found that the proportion of black venire members is lowest at Level 3 (0.36) and highest at Level 7 (0.70). 186

The principal purpose of Figure 2 is to test for race disparities after adjustment for the strike-proneness measure. We did this by calculating the disparities overall and within each level of the strike-proneness scale. For example, at strike-proneness Level 5, we see an overall strike rate of 0.42 (in the parenthetical), a strike rate of 0.71 for the black venire members, and a strike rate of 0.21 for the non-black venire members. This represents a 50-percentage point disparity (0.71–0.21) and a black/non-black strike-rate ratio of 3.4 (0.71/0.21) both of which are statistically significant at the 0.0001 level. Note that with one exception, there is a substantial and significant race disparity at every level of the strike-proneness scale. The one

^{186.} The proportions of black venire members at each level of the scale are not reported in Figure 2. The correlation between the scale values and venire-member race is 0.23, significant at the 0.0001 level.

exception is Level 7 where the strike-rate disparity is only 8-percentage points and not statistically significant. If facially neutral case characteristics explained the systemic race disparities in Prosecutor McMahon's use of peremptory strikes, we would see a similar suppression of the race disparities at each level of the strike-proneness scale. Clearly we do not. Moreover, the overall race disparity adjusted for strike-proneness based on facially neutral venire-member characteristics is substantial—50 percentage points (0.64–0.14) and a ratio of 4.6 (0.64/0.14), significant at the 0.0001 level.

The statistical evidence presented in *Wilson*—unadjusted strike disparities, adjusted disparities after controlling for individual race-neutral characteristics, disparities after conducting fully controlled analyses with logistic regression, and possibly creating strike-proneness scales to enhance the analysis as well as the accessibility of the findings—provides an example of effective pattern-and-practice evidence. The study design and the evidence presented in the case are consistent with the model advanced in the *Miller-El* line of cases. It also provides guidance for future cases.

V. CONCLUSION

On January 17, 2003, Judge Temin ruled that race had been a motivating factor in one or more of McMahon's peremptory strikes and granted a new trial.¹⁸⁷ The Commonwealth did not appeal Judge Temin's ruling. On retrial, Wilson successfully moved to bar the death penalty because the delay associated with the prosecution's violation of his constitutional rights prevented him from meaningfully developing and presenting his case for life. He was acquitted of all charges after DNA testing of blood on the killer's jacket disclosed four sources: the three murder victims and a fourth person who was neither Wilson nor one of the victims.

The *Miller-El* line of cases support the use of statistical evidence like that presented in *Wilson*. The Court has provided useful guidance and has endorsed reference to Title VII cases for support. More rigorous and precise use of statistical evidence in *Batson* claims may increase the *Batson* effectiveness, after only twenty-five years of delay.

^{187. &}quot;Mr. Wilson is entitled to a new trial because of the Commonwealth's violation of Batson. The court finds that there was definitely an attempt on the part of the Commonwealth to [peremptorily strike] jurors because of their African-American race, [and] that the neutral reasons given were not satisfactory. It was obvious in light of cross-examination that White jurors were accepted on the same basis on which Black jurors had been peremptorily challenged and, therefore, I find that the reasons given were pretextual and [a] new trial must be granted." Post-Conviction Relief Act Transcript 1/17/03, at 2, Commonwealth v. Harold Wilson, July Term, 1988, No. 3267, 3270, 3271 (Phila. C. P., Crim. Div.). In an earlier ruling, Judge Temin had ordered a new penalty trial because of trial counsel's ineffectiveness in failing to investigate and present available mitigating evidence. Commonwealth v. Harold Wilson, Nos. 3267, 3270, 3271 (Phila. C. P., Crim. Div., Jan. 31, 2000).