RISK IN SENTENCING:
CONSTITUTIONALLY SUSPECT VARIABLES
AND EVIDENCE-BASED SENTENCING

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I. INTRODUCTION ........................................ 1330
II. THE CASE FOR EVIDENCE-BASED SENTENCING .. 1340
III. EMPIRICAL VARIABLES AND THE PREDICTION
OF RECIDIVISM ........................................ 1347
   A. BRIEF HISTORY OF PREDICTING RECIDIVISM .... 1348
   B. CRIMINOLOGICAL EVIDENCE FOR PREDICTOR
      VARIABLES ......................................... 1353
         1. Criminal Companions ........................ 1353
         2. Criminogenic Needs ......................... 1354
         3. Antisocial Personality ...................... 1354
         4. Adult Criminal History ..................... 1355
         5. Race .......................................... 1356
         6. Pre-Adult Antisocial Behavior ............... 1359
         7. Family Rearing Practices .................... 1359
         8. Social Achievement .......................... 1360
         9. Interpersonal Conflict ....................... 1361
        10. Current Age ................................ 1361
        11. Substance Abuse ................................ 1362
        12. Family Structure ................................ 1363
        13. Intellectual Functioning .................... 1364
        14. Family Criminality ........................... 1365
        15. Gender ....................................... 1365
        17. Personal Distress ................................ 1366
IV. CHALLENGES TO THE USE OF EMPIRICAL
    VARIABLES IN EVIDENCE-BASED SENTENCING .. 1368
   A. LOGISTICAL CHALLENGES ........................ 1368
   B. LEGAL CHALLENGES ................................ 1372
   C. CONSTITUTIONAL RIGHTS .......................... 1378
   D. GRUTTER V. BOLLINGER: A POTENTIAL SOLUTION?... 1382

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1329
The most merciful thing in the world, I think, is the inability of the human mind to correlate all its contents. We live on a placid island of ignorance in the midst of black seas of infinity, and it was not meant that we should voyage far. The sciences, each straining in its own direction, have hitherto harmed us little; but some day the piecing together of dissociated knowledge will open up such terrifying vistas of reality, and of our frightful position therein, that we shall either go mad from the revelation or flee from the deadly light into the peace and safety of a new dark age.

I. INTRODUCTION

It is sometimes said that imposing a criminal sentence is the most difficult thing a judge ever has to do. Imposing punishment, in an even-handed and dispassionate manner, is an awesome responsibility. There are four commonly recognized cornerstones of punishment:

2. See, e.g., Williams v. New York, 337 U.S. 241, 251 (1949) (describing the responsibility of fixing a sentence as "grave"); Daniel E. Walthen, *When the Court Speaks: Effective Communication as a Part of Judging*, 57 Me. L. Rev. 449, 452 (2005) ("Sentencing decisions are often described as among the most difficult that a judge faces."); H. Lee Sarokin, *Confessions of a Sentencing Judge*, Huffington Post (Mar. 7, 2010, 2:50 PM), http://www.huffingtonpost.com/judge-h-lee-sarokin/confessions-of-a-sentencing-judge_489139.html (noting that in his work as a federal judge, "no decision required more thought and agony than a sentence to be imposed"). But see Marvin E. Frankel, *Criminal Sentences: Law Without Order* 15 (1973) (noting that while "[j]udges are commonly heard to say that sentencing is the grimmest and most solemnly absorbing of their tasks," judges actually spend little time talking, reading, or writing about sentencing issues, and often spend little time reviewing the facts—sometimes less than an hour—before sentencing a defendant to a decade in prison).
4. A great deal of scholarship has been devoted to the explication of punishment, but relatively few have challenged the concept of punishment itself. For an example of this scholarship, see Deirdre Golash, *The Case Against Punishment: Retribution, Crime Prevention, and the Law* 1–2 (2006) (challenging the presumption that punishment is the appropriate response to crime).
retribution (also known as just deserts),

deterrence,

incapacita-


One of the strongest expressions of retribution was formulated by Kant. See Immanuel Kant, *The Philosophy of Law* (W. Hastie trans., Edinburgh, T & T Clark) (1887).

Even if a Civil Society resolved to dissolve itself with the consent of all its members—as might be supposed in the case of a People inhabiting an island resolving to separate and scatter themselves throughout the whole world—the last Murderer lying in the prison ought to be executed before the resolu-
tion was carried out. This ought to be done in order that every one may realize the desert of his deeds, and that bloodguiltiness may not remain upon the people; for otherwise they might all be regarded as participators in the murder as a public violation of Justice.

Id. at 198. Hegel, also a retributivist, suggested that punishment should be conceived of as a right, not as an evil to be suffered:

Punishment is the right of the criminal. It is an act of his own will. The violation of right has been proclaimed by the criminal as his own right. His crime is the negation of right. Punishment is the negation of this negation, and consequently an affirmation of right, solicited and forced upon the criminal by himself.

Karl Marx, *Punishment and Society, in Philosophical Perspectives on Punishment* 358, 358 (Gertrude Ezorsky ed. 1972) (quoting Georg Hegel). Of course, during much of the twentieth century, retributivist theory was derided by jurists and scholars alike. See, e.g., Furman v. Georgia, 408 U.S. 238, 363 (1972) (Marshall, J., concurring) ("[N]o one has ever seriously advanced retribution as a legitimate goal of our society."); Morissette v. United States, 342 U.S. 246, 251 (1952) (referencing the "tardy and unfinished substitution of deterrence and reformation in place of retaliation and vengeance as the motivation of public prosecution"); Williams, 337 U.S. at 248 ("Retribution is no longer the dominant objective of the criminal law."); Austin MacCormick, *The Prison's Role in Crime Prevention, 41 J. CRIM. L. & CRIMINOLOGY* 36, 40 (1950) ("Punishment as retribution belongs to a penal philosophy that is archaic and discredited by history."). But see Matthew Haist, *Deterrence in a Sea of "Just Deserts": Are Utilitarian Goals Achievable in a World of "Limiting Retributivism"* 99 J. CRIM. L. & CRIMINOLOGY 789, 799 (2009) ("Over the last quarter of the twentieth century and into the early part of the twenty-first century, retributivism has reestablished itself as the dominant theory behind criminal justice."). Even the Supreme Court has acknowledged a role for retributivism in punishment. See Spaziano v. Florida, 468 U.S. 447, 462 (1984) (noting that "retribution is an element of all punishments society imposes").


If I were having a philosophical talk with a man I was going to have hanged . . . I should say, I don't doubt that your act was inevitable for you but to make it more avoidable by others we propose to sacrifice you to the common good. You may regard yourself as a soldier dying for your country if you like. But the law must keep its promises.

tion,\textsuperscript{7} and rehabilitation.\textsuperscript{8} Punishment may serve additional functions,\textsuperscript{9} but these four bases shape most jurisprudential thinking about punishment.\textsuperscript{10} Retributivist theories are retrospective, concerned with the correct punishment due for prior acts.\textsuperscript{11} Conversely, the other three theories are prospective, focused on how future criminal acts can be prevented.\textsuperscript{12} Some theorists argue that retribution—and retribution alone—should determine criminal penalties,\textsuperscript{13} but pure retributivists are rarely spotted in

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W. Wood ed., H. B. Nisbet trans., 1991) ("To justify punishment in this way is like raising one's stick at a dog; it means treating a human being like a dog instead of respecting his honour and freedom.").
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Recognition that imprisonment's distinctive feature as a penal method is its incapacitative effect has implications for criminal justice policy. The contribution of prisons to crime control by way of rehabilitation programs or individual and general deterrence is problematic. But there can be no doubt that an offender cannot commit crimes in the general community while incarcerated.
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11. See, e.g., R. A. DUFF, Punishment, Communication, and Community 19–20 (2001) ("[Retributivism] justifies punishment in terms not of its contingently beneficial effects but of its intrinsic justice as a response to crime; the justificatory relationship holds between present punishment and past crime, not between present punishment and future effects.").
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12. See JEFFRIE G. MURPHY & JULES L. COLEMAN, PHILOSOPHY OF LAW: AN INTRODUCTION TO JURISPRUDENCE 118 (rev. ed. 1990) ("And how can such a general justifying aim be prevention, since state punishment waits until a crime has already occurred?"). The answer, of course, is that punishment under the utilitarian theory seeks to prevent other criminal acts. This is not a novel insight. In the Protagoras, Plato states:
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In punishing wrongdoers, no one concentrates on the fact that a man has done wrong in the past, or punishes him on that account, unless taking blind vengeance like a beast. No, punishment is not inflicted by a rational man for the sake of the crime that has been committed—after all one cannot undo what is past—but for the sake of the future, to prevent either the same man or, by the spectacle of his punishment, someone else, from doing wrong again.
\end{quote}

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PLATO, PROTAGORAS, IN 71 THE COLLECTED DIALOGUES OF PLATO 308, 321 (Edit Hamilton & Huntington Cairns eds., Lane Cooper et al. trans., 2nd prtg., 1963).
\end{quote}

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13. See KANT, supra note 5, at 195 (noting that utilitarian aims cannot justify punishment; rather, it can "be imposed only because the individual on whom it is inflicted has committed a Crime"); Michael S. Moore, The Moral Worth of Retribution, in RESPONSIBIL
the real world. Most jurists believe that deterrence, incapacitation, and rehabilitation are legitimate bases for punishment.14

Unless the judge is a pure retributivist, considerations about future criminal conduct will color his or her decision. If the reduction of future crime is an appropriate goal of punishment, it is worth noting that deterrence, incapacitation, and rehabilitation produce empirically measurable results. It can be claimed, for example, that crime X is optimally punished by penalty Y, reducing future offending more than penalty Z. Such claims can be tested and are "falsifiable."15 Thus, from the standpoint of utilitarian penology, some punishments are demonstrably superior.16 A judge can know "what works" in sentencing.17 But how should a judge assess the risk of recidivism and then weigh that risk against other consid-

14. See Nigel Walker, Why Punish? 8 (1991) ("In practice Anglo-American sentencers tend to be eclectic, reasoning sometimes as utilitarians but sometimes, when they are outraged by a crime, as retributivists.")

15. See Bernard E. Harcourt, Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age 33 (2007) ("Simplistic, basic, but predictive—[binary prediction based on objective measures] can be proven right. It can be validated, tested, replicated. It is a form of technical knowledge that makes possible 'right' and 'wrong' answers."). This is the principle of falsifiability, as championed by philosopher of science, Karl Popper. Karl R. Popper, The Logic of Scientific Discovery 41 (1959) ("I shall require [of a scientific system] that its logical form shall be such that it can be singled out, by means of empirical tests, in a negative sense: it must be possible for an empirical scientific system to be refuted by experience."). Falsifiable claims are not necessarily quantitative, but the numeric expression of risk may help establish an air of authority that does not extend to qualitative approaches. See United States v. Reich, 661 F. Supp. 371, 378 (S.D.N.Y. 1987) ("The formulae and the grid distance the offender from the sentencer—and from the reasons for punishment—by lending the process a false aura of scientific certainty."); Hans J. Eysenck, Genius: The Natural History of Creativity 4 (1995) (quoting Lord Kelvin as stating that "[o]ne's knowledge of science begins when he can measure what he is speaking about, and expresses it in numbers"); J.C. Oleson, Blowing Out All the Candles: A Few Thoughts on the Twenty-Fifth Birthday of the Sentencing Reform Act of 1984, 45 U. Rich. L. Rev. 693, 723 (2011) ("By masking the politics of sentencing beneath a veneer of science, the Guidelines made punishment appear more rational, empirical, and precise.").

16. Retrospectively oriented punishments, on the other hand, might be scaled, but cannot be disproved. See Alice Ristroph, Desert, Democracy, and Sentencing Reform, 96 J. Crim. L. & Criminology 1293, 1334–35 (2006) ("Importantly in this 'age of empiricism,' the moral claims of retributivism are non-falsifiable: one can dispute whether a punishment accords with community sentiments of desert, but one cannot disprove the underlying claim that it is morally right to impose deserved punishment.").

17. The phrase is used advisedly, reflecting Martinson's (in)famous article that closed the door on rehabilitative penology. See Robert Martinson, What Works?—Questions and Answers About Prison Reform, 35 Pub. Int. 22, 22–23 (1974) (concluding from a review of 231 studies that rehabilitative programs did not significantly reduce rates of recidivism). But see Robert Martinson, New Findings, New Views: A Note of Caution Regarding Sentencing Reform, 7 Hofstra L. Rev. 243, 254 (1979) (recanting his "nothing works" findings by writing that "I withdraw this conclusion").
erasations? That is a difficult question. There is little academic training available to learn sentencing. Most law schools do not offer courses in penology or sentencing, and most legal work does not equip the lawyer with directly relevant experience. Yes, both the defense lawyer and the prosecutor are exposed to sentencing, but they participate in that activity as parties. Even veteran prosecutors, exhorted to “do justice” instead of winning at any cost, are not required to balance the interests of all involved parties—defendant, victims, and society at large—at least not in the reflective and dispassionate way that a judge must.

Judges confronted with the responsibility of imposing sentences may turn to early criminal codes, seminal works by early and contemporary philosophers, and the jurisprudential work of professional societies.

18. See Frankel, supra note 2, at 13 (“Law students learn something about the rules of the criminal law, about the trial of cases, and, increasingly, about the rights of defendants before and during trial. They receive almost no instruction pertinent to sentencing.”). Approximately thirty U.S. law schools offer courses on general sentencing, as compared to 150+ that offer death penalty courses. See Doug Berman, Questioning Law School Priorities in Instruction and Programming, Sent’g L. & Pol’y (Feb. 19, 2008), http://sentencing.typepad.com/sentencing_law_and_policy/2008/02/questioning-law.html (providing these estimates). Of course, this is not universally true. In the German legal system, law students first train as judges. See James R. Maxeiner, Integrating Practical Training and Professional Legal Education, 2 IUS GENTIUM 37, 43–44 (2008) (noting that German law students apprentice under judicial supervision and thereby learn to craft actual judgments).

19. See, e.g., Berger v. United States, 295 U.S. 78, 88 (1935) (“The United States Attorney is the representative not of an ordinary party to a controversy, but of a sovereignty whose obligation to govern impartially is as compelling as its obligation to govern at all; and whose interest, therefore, in a criminal prosecution is not that it shall win a case, but that justice shall be done.”). The Court’s exhortation has been echoed by Attorney General Eric Holder, who told assistant U.S. attorneys that “[y]our job is not to win cases. Your job is to do justice. Your job is in every case, every decision that you make, to do the right thing.” Nedra Pickler, Attorney General Holder Tells Prosecutors to ‘Do the Right Thing’, CNSNEWS.com, (Apr. 9, 2009), http://cnsnews.com/node/46364.


In many jurisdictions, sentencing guidelines channel judicial authority in that they identify appropriate penalties within the broad ranges established by legislatures. But recent decisions by the Supreme Court have prohibited certain forms of guideline sentencing. Today, for example, in the federal judiciary, sentencing guidelines are advisory, and any district court judge who treats a guideline sentence as presumptively reasonable can be reversed.

Accordingly, federal judges must wrestle with all of the sentencing considerations enumerated in 18 U.S.C. § 3553(a), decide which ones are paramount, and attempt to render an appropriate gestalt judgment. Some judges have resorted to consulting ad hoc advisory panels of fellow judges and sentencing experts. And, perhaps because there is no consensus about which sentencing objectives take priority over others, it is said that disparity in federal sentencing is increasing. If that is so, the judiciary could see a return to the “bad old days” of indeterminate sentencing, the not-so-terrific days of mandatory sentencing guidelines have proven to be an effective means of channeling judicial discretion. See, e.g., Richard S. Frase, State Sentencing Guidelines: Diversity, Consensus, and Unresolved Policy Issues, 105 COLUM. L. REV. 1190, 1231–32 (2005); Michael Tonry, Sentencing Commissions and Their Guidelines, 17 CHIME & JUST. 137, 144–45, 180 (1993).

See United States v. Booker, 543 U.S. 220, 232–33 (2005) (applying the Blakely holding to the federal sentencing guidelines); Blakely v. Washington, 542 U.S. 296, 302, 308 (2004) (holding that the Sixth Amendment prohibits judges from enhancing sentences based on facts other than those admitted by the defendant or found by a jury beyond a reasonable doubt).

See Booker, 543 U.S. at 245.


See U.S. SENTENCING COMM’N, DEMOGRAPHIC DIFFERENCES IN FEDERAL SENTENCING PRACTICES: AN UPDATE OF THE BOOKER REPORT’S MULTIVARIATE REGRESSION ANALYSIS 2 (2010) (“Black male offenders received longer sentences than white male offenders. The differences in sentence length have increased steadily since Booker.”).

Other researchers looking at post-Booker disparity have reached contradictory conclusions. See Jeffrey T. Ulmer et al., The “Liberation” of Federal Judges’ Discretion in the Wake of the Booker/Fanfan Decision: Is There Increased Disparity and Divergence Between Courts?, JUST. Q. (forthcoming).

lines, or the widespread adoption of mandatory minimum sentences. Fortunately, however, another approach could provide federal judges with much-needed guidance: evidence-based sentencing.

Judges engaging in evidence-based sentencing use data in an actuarial manner instead of applying mere professional judgment. There are good reasons for judges to adopt this approach because actuarial assessment has been demonstrated to be more effective than clinical judgment in a wide range of fields. Today, there is growing interest in actuarial sentencing in the United States and abroad, and this attraction to the approach will intensify as economic scarcity forces cash-strapped jurisdictions to sentence "smarter," reducing the costs associated with correc-

33. See Molly Treadway Johnson & Scott A. Gilbert, Fed. Jud. Ctr., The U.S. Sentencing Guidelines: Results of the Federal Judicial Center's 1996 Survey 4 (1997) ("I think guidelines which were not mandatory would be helpful for all federal and state judges. It is the mandatory nature which creates the unfairness and the unfairness is outrageously unjust.") (quoting a federal judge). But see William K. Sessions III, At the Crossroads of the Three Branches: The U.S. Sentencing Commission's Attempts to Achieve Sentencing Reform in the Midst of Inter-branch Power Struggles, J.L. & Pol'y (forthcoming 2011) (suggesting that presumptive guidelines are necessary to achieve the goals of the Sentencing Reform Act).


36. See discussion infra Part II (describing evidence-based sentencing).


Risk in Sentencing

Determining which characteristics should be considered in actuarial sentencing, however, may prove to be problematic. Although criminologists have identified a number of variables that appear to be robust predictors of recidivism, and although judges have wide discretion in sentencing, several of the factors identified as predictive by criminologists (e.g., race, gender) have been struck down as unconstitutional by some courts. Such problematic items can be eliminated from risk assessment instruments, but as the variables associated with protected categories are struck from assessment tools, the predictive power of these instruments wanes. Should the most robust variables be used or omitted? Some highly-predictive variables are uncontroversial, but others are highly contentious. Part III of this Article briefly surveys the history of recidivism prediction efforts and outlines the criminological evidence for seventeen variables associated with recidivism.

Part IV considers three types of challenges associated with the use of empirical sentencing factors: logistical, legal, and philosophical. First, in terms of logistical challenges, some sentencing factors are easy to observe and measure, like age, but others may be too expensive to assess and require significant resources to measure (e.g., association with criminal peers or clinical assessment of IQ). Second, in terms of legal challenges, some sentencing factors, such as criminal record, would raise no eyebrows, but explicit consideration of other factors, for example race, would be controversial. Although courts probably would not uphold defendants’ challenges to evidence-based sentencing based on free speech, double jeopardy, or trial by jury rights, they may be sympathetic to due process or equal protection claims. Sentencing judges may be barred from considering risk predictors such as race, gender, or age. That said, it is possible that the use of suspect categories at sentencing could survive


40. See United States v. Tucker, 404 U.S. 443, 446 (1972) (holding that sentencing judges "may appropriately conduct an inquiry broad in scope, largely unlimited either as to the kind of information he may consider, or the source from which it may come."); Williams v. Oklahoma, 358 U.S. 576, 585 (1959) (“In discharging his duty of imposing a proper sentence, the sentencing judge is authorized, if not required, to consider all of the mitigating and aggravating circumstances involved in the crime.”).

41. See, e.g., United States v. Kaba, 480 F.3d 152, 156 (2d Cir. 2007) (“‘A defendant’s race or nationality may play no role in the administration of justice, including at sentencing.’” (quoting United States v. Leuing, 40 F.3d 577, 586 (2d Cir. 1994))).

42. See, e.g., Joan Petersilia & Susan Turner, Guideline-Based Justice: Prediction and Racial Minorities, 9 CRIME & JUST. 151, 174 (1987) (noting that omitting factors that are correlated with race from a model to predict recidivism reduced the accuracy of the model by five to twelve percentage points).


44. See, e.g., Kaba, 480 F.3d at 159; Leuing, 40 F.3d at 586–87 (reversing sentence and assigning sentencing to new judge for consideration of race or gender).
intermediate—or even strict—scrutiny analysis. While it is implausible that a court would uphold the imposition of a sentence on the basis of race or gender alone, courts might be permitted to assess risk by considering race and gender in combination with other variables. After all, in the context of higher education, the Supreme Court has struck down the use of racial quotas but has upheld the consideration of race when it was one among other factors. Third, the philosophical challenges associated with evidence-based sentencing are just as thorny as the legal ones. Imposing lengthy sentences on some defendants, simply because they resemble other recalcitrant offenders, may offend some judges' sense of justice. Further, to the extent that immutable characteristics are predictive of recidivism (justifying punishment under utilitarian grounds), this may imply that the offenders lack meaningful control over their criminal behavior (making the imposition of punishment problematic on retributivist grounds). Certainly, individual differences play a role in shaping the susceptibility to reoffending, but it may be difficult for many judges to surrender the fictions that all persons are truly equal under the law and that except in stark cases, such as duress or diminished capacity, all citizens enjoy a roughly equal predisposition to obeying or violating the law.

Ultimately, however, courts must consider these issues. When judges impose sentences, they act upon predictions about future criminal conduct, either implicitly or explicitly. They do so every day. Unless they are prepared to ignore all utilitarian bases of punishment, judges must assess the risk of future crime. It has long been so. But while the idiosyncratic assessment of risk has long been ubiquitous in the criminal justice

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46. Compare Gratz v. Bollinger, 539 U.S. 244, 275–76 (2003) (striking down the University of Michigan's point-based affirmative action admissions policy for undergraduates after characterizing it as a quota system), with Grutter v. Bollinger, 539 U.S. 306, 335, 343 (2003) (upholding the University of Michigan's affirmative action admissions program at the law school after noting that race was used as a "plus factor" to achieve the compelling state interest of a diverse student body).

47. See, e.g., Michael Marcus, Model Penal Code Symposium: MPC-The Root of the Problem: Just Deserts and Risk Assessment, 61 Fla. L. Rev. 751, 753, 768 (2009) (noting that some commentators view sentencing with risk assessment tools as punishing defendants with "false positives" or "punishment for future crimes").

48. See Packer, supra note 5, at 74–75 ("Very simply, the law treats man's conduct as autonomous and willed, not because it is, but because it is desirable to proceed as if it were.").

49. See John Monahan, A Jurisprudence of Risk Assessment: Forecasting Harm Among Prisoners, Predators, and Patients, 92 Va. L. Rev. 391, 434–35 (2006) (noting that historically "courts rarely have had to address jurisprudential considerations in making violence risk assessments" but that "[j]urisprudential considerations in premising legal decisions on these specific risk factors can no longer be avoided.").

system, the effectiveness of the actuarial approach is transforming the field, thereby creating a “new penology” premised on the management of risk within aggregated groups. This new penology may force judges to think differently about punishment, and—possibly—to confront some difficult jurisprudential truths.

Part V of the Article considers the conundrum of what judges should do with empirical assessment tools that rely on suspect variables. On the one hand, evidence-based sentencing could provide the guidance that federal district judges so desperately need after the decision in United States v. Booker. Evidence-based sentencing could help ameliorate the explosive growth in the Federal Bureau of Prisons and mitigate the harm that is currently done to defendants, their families.

51. See James Q. Wilson, Crime and Public Policy 279 (1983) (“The entire criminal justice system is shot through at every stage (bail, probation, sentencing, and parole) with efforts at prediction, and necessarily so; if we did not try to predict, we would release on bail or on probation either many more or many fewer persons, and make some sentences either much longer or much shorter.”).
55. Evidence-based sentencing might maintain parsimony in punishment, limiting the amount of harm inflicted to the necessary amount. But, by definition, all defendants who are punished are harmed. See generally Nils Christie, Limits to Pain 5, 11 (1981); Todd R. Clear, Harm in American Penology: Offenders, Victims and Their Communities 6 (1994); Craig Haney, Reforming Punishment: Psychological Limits to the Pains of Imprisonment 9–11 (2006); Hart, supra note 22, at 4; Walker, supra note 14, at 1–2 (all defining punishment as harm or evil intentionally imposed by the state for criminal wrongdoing). This conception of punishment is in no way new. See Thomas Hobbes, Leviathan 205 (Oxford University Press, 1996) (1961) (asserting that punishment “is an evil inflicted by public authority.”). The awareness that punishment is a harm, not a boon, prompted one court to state that “this court shares the growing understanding that no one
lies, by locking federal offenders away for terms that dwarf what comparable offenders receive in state courts. But district judges may very well resent a return to "justice by the numbers," and may resist the enhancement of a sentence on the basis of a defendant's race, sex, age, class, or IQ score. That is understandable. But assessments of risk are part and parcel of sentencing, and if the body of research showing that actuarial assessment is superior to professional judgment is sound, then judges who eschew risk assessment instruments do so to their detriment. Sentencing blindly, these judges will either over-sentence and send to prison individuals who present little appreciable risk to public safety or under-sentence and release dangerous criminals into communities, thereby creating new victims of crime.

II. THE CASE FOR EVIDENCE-BASED SENTENCING

Historically, judges were free to consider any facts that were not expressly prohibited, and to impose any sentence that fell within the broad ranges established by the law. A judge could impose a sentence and give no reason at all, and judicial decisions of this kind were virtually should ever be sent to prison for rehabilitation. That is to say, nobody who would not otherwise be locked up should suffer that fate on the incongruous premise that it will be good for him or her.” United States v. Bergman, 416 F. Supp. 496, 499 (S.D.N.Y. 1976). But see Marx, supra note 5, at 89–91 (characterizing punishment as the “right” of a criminal).


61. See supra note 40 and accompanying text.

62. See, e.g., Williams v. New York, 337 U.S. 241, 252 (1949) (noting that “no federal constitutional objection would have been possible if the . . . judge had sentenced him to death giving no reason at all.”).
unreviewable. The law of sentencing was so vague that it has been called the "high point in anti-jurisprudence." The establishment of sentencing guidelines made sentencing more uniform. In the federal justice system, the passage of the Sentencing Reform Act of 1984 (SRA) made sentencing more regimented and more predictable. The SRA prospectively abolished federal parole, established the United States Sentencing Commission, and directed the Sentencing Commission to develop and promulgate federal sentencing guidelines. These steps alone did a great deal to standardize federal sentencing.

In 2005, however, in the bifurcated opinion in United States v. Booker, the Supreme Court held that the federal sentencing guidelines violated the Sixth Amendment. The Court remedied this violation by striking down the provisions of the SRA that made the guidelines binding, thus making the guidelines advisory. Today, federal district court judges are free to consider any factor enumerated by statute and may no longer presume that a guideline sentence is reasonable.

But if district court judges can no longer rely on guideline sentences as reasonable, what may they use to guide their decision making? How can they thoughtfully weigh the various sentencing factors identified in 18 U.S.C. § 3553(a)?

After Booker, federal judges might draw upon empirical data and impose "evidence-based sentences." Specifically, using a sentencing infor-

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63. See United States v. Tucker, 404 U.S. 443, 447 (1972) (observing that "a sentence imposed by a federal district judge, if within statutory limits, is generally not subject to review.").
66. See generally U.S. SENTENCING COMM’N, FIFTEEN YEARS OF GUIDELINE SENTENCING, x (2004), available at www.ussc.gov/Research/Research_Projects/Miscellaneous/15_Year_Study/15_year_study_full.pdf ("The guidelines have made sentencing more transparent and predictable.").
70. See KATE STITH & JOSÉ A. CABRANES, FEAR OF JUDGING: SENTENCING GUIDELINES IN THE FEDERAL COURTS 114 (1998) (noting that “elimination of parole by itself... quite apart from any effect of the Guidelines, can be expected to reduce sentencing variation.").
72. Id. at 226–27.
73. Id. at 245.
76. Id.
77. See MODEL PENAL CODE: SENTENCING § 1.02(2)(a)(iii) (Tentative Draft No. 1, 2007) (supporting evidence-based sentencing); JUSTICE KENNEDY COMM’N, AM. BAR ASS’N, REPORTS WITH RECOMMENDATIONS TO THE HOUSE OF DELEGATES, 9, 33–34 (2004), available at www.americanbar.org/content/dam/aba/publishing/criminal_justice_
mation system, judges might be provided with information that would allow them to impose maximally efficient sentences within the statutory ranges authorized by law, thereby reducing the likelihood of future crime. This is not a new idea. The application of computers to criminal sentencing was proposed forty years ago, and the Judicial Conference of the United States (the policy-making body for the federal courts) endorsed the use of empirical data in sentencing thirty years ago. There is good reason for modern federal courts to consider adopting evidence-based sentencing. “The statistical assessment of recidivism risk has an eighty-year history,” is more accurate than predictions of violence, and consistently outperforms the clinical judgment of even trained and experienced experts. “Recent advances in the science and statistical


81. See Report of the Proceedings of the Judicial Conference of the United States, Sept. 15-16, 1977, 74-75 (endorsing “the concept of a new probation information system” that would, inter alia, “provide up-to-date information to guide sentencing courts in selecting sentences for convicted defendants”).

82. J. C. Oleson et al., Training to See Risk: Measuring the Accuracy of Clinical and Actuarial Risk Assessments Among Federal Probation Officers, 75 FED. PROBATION 52, 52 (2011); see also HARcourt, supra note 15, at 47-49, 77 (describing development of early actuarial techniques and exponential proliferation of their use in modern criminal justice system).

83. See D.A. ANDREWS & JAMES BONTA, The Psychology of Criminal Conduct 302-03 (4th ed. 2006) (noting that, because violence (specifically) is rarer than crime (generally), it is more difficult to predict violence than recidivism). The prediction of violence has been criticized because of a high rate of false positives. See, e.g., Bruce J. Ennis & Thomas R. Litwack, Psychiatry and the Presumption of Expertise: Flipping Coins in the Courtroom, 62 CALIF. L. REV. 693, 711-16 (1974) (describing the prediction of violence as no more accurate than “the flip of a coin”); Morris & Miller, supra note 79, at 15-16 (“With our present knowledge, with the best possible long-term predictions of violent behavior we can expect to make one true positive prediction of violence to the person for every two false positive predictions.”). But see Morris & Miller, supra note 79, at 17 (emphasizing that even at a prediction rate of one-in-three, “a group of three people, one of whom within a few months will commit a crime of extreme personal violence, is a very dangerous group indeed.”).

84. See, e.g., ANDREWS & BONTA, supra note 83, at 287 tbl.9.9; GOTTFREDSON & GOTTFREDSON, supra note 37; Meehl, supra note 37; William M. Grove, et al., Clinical Versus Mechanical Prediction: A Meta-Analysis, 12 PSYCHOL. ASSESSMENT 19, 19 (2000); Stephen D. Gottfredson & Don M. Gottfredson, Accuracy of Prediction Models, in 2 CRIMINAL CAREERS AND “CAREER CRIMINALS” 247 (Alfred Blumstein, et al. eds., 1986) (“In virtually every decision-making situation for which the issue has been studied, it has been found that statistically developed predictive devices outperform human judgments.”); Oleson et al., supra note 82. Based the strength of the evidence, one researcher has concluded, “[I]f failure to conduct actuarial risk assessment or consider its results is irrational, unscientific, unethical, and unprofessional.” Ivan Zinger, Actuarial Risk Assessment and Human Rights: A Commentary, CANADIAN J. CRIMINOLOGY & CRIM. JUST. 607, 607
Risk methodologies of prediction have allowed higher degrees of automation for actuarial risk forecasting than ever before.85

In 1999, Don Gottfredson compared the factors considered by sentencing judges in making subjective predictions about the risk of new crime86 with empirically derived risk factors.87 He looked at whether offenders were arrested in the twenty-year period after sentencing and concluded that empirically-derived risk measures were better at predicting future crime than judges' subjective impressions.88

Today, there is growing interest in actuarial sentencing. The PEW Center on the States recommended ten evidence-based sentencing initiatives, including the use of risk-needs assessments as a basis for sentencing decisions.89 The Crime and Justice Institute and National Institute of Corrections issued a report that championed evidence-based sentencing.90 The National Center for State Courts has developed a model curriculum for evidence-based sentencing.91 Additionally, the American Law Institute's recent revision to the Model Penal Code (Sentencing) acknowledged a role for risk assessment instruments in the sentencing process and called for sentencing commissions to develop "offender risk instruments or processes, supported by current and ongoing recidivism research of felons in the state, that will estimate the relative risks that individual felons pose to public safety through future criminal conduct."92

Elsewhere,93 I have described a sentencing information system that might allow judges to identify relevant data about the offense and offender to generate an easily interpretable scatter plot.

(2004). See also Redding, supra note 77, at 1 (suggesting that failing to use actuarial risk assessment devices may “be unethical—a kind of sentencing malpractice . . . ”).
87. See id. at 6 (noting that the empirically derived measure used “[a]ge (younger), [l]ong arrest record, [r]ace: not white, [a]ny heroin or barbiturate use in the past 2 years, number of prior probation sentences, alcohol use as a problem drinker (in record) . . . [l]ess serious offense, [a]number of prior jail sentences, [p]roperty crime, [and] [s]ale of drugs (current offense)” as predictors of rearrest).
88. Id. at 2; see also Gottfredson & Gottfredson, supra note 37, at 247 (noting that actuarial techniques outperform clinical prediction).
90. ROGER WARREN, CRIME & JUST. INST., EVIDENCE-BASED PRACTICES TO REDUCE RECIDIVISM: IMPLICATIONS FOR STATE JUDICARIES 53 (2007).
91. See generally NAT'L CTR. FOR STATE COURTS, EVIDENCE-BASED SENTENCING TO IMPROVE PUBLIC SAFETY & REDUCE RECIDIVISM: A MODEL CURRICULUM FOR JUDGES (2009).
93. See Oleson, supra note 15, at 743–45.
The severity of sentence would be plotted on the horizontal axis (representing the entire spectrum of terms of imprisonment available under the statute) and the duration without a new arrest ("survival") would be plotted on the vertical axis. Each point in the cloud of the scatter plot would represent a previous case (offenders matched for offender and offense characteristics), and by clicking on any single point with a mouse, the judge could pull up the specifics of that case: the name and photo of the offender, the offense of conviction, the characteristics of the offender, and the particulars of the sentence imposed. The judge would be able to review any educational, vocational, or treatment programs that successful offenders had completed while serving their sentences, and to search online for available, equivalent programs. If desired, the underlying documents associated with any of the previous cases could be retrieved with a click of the mouse.\footnote{94}

By focusing on sentencing alternatives near the top of the vertical axis, which represents individuals who survived long periods of time without new arrests, a judge could engage in actuarial sentencing. A judge could divert correctional resources from low-risk offenders (who actually become more likely to reoffend if over-supervised)\footnote{95} to high-risk offenders in greater need of intensive services and supervision.\footnote{96} Defendants who are statistically most likely to recidivate could be sentenced to longer sentences—within the statutory range—\footnote{97} and the data could suggest the

\footnote{94.  \textit{Id.} at 745–46.}
\footnote{95.  \textit{See, e.g.,} Christopher T. Lowenkamp & Edward J. Latessa, \textit{Understanding the Risk Principle: How and Why Correctional Interventions Can Harm Low-Risk Offenders}, in \textit{Topics in Community Corrections, National Institute of Corrections Annual Issue} (2004) (noting that providing unnecessary services to low-risk offenders wastes resources that could be devoted to more-serious offenders and affirmatively increases the risk that low-risk offenders will reoffend).}
\footnote{97.  Criminological research suggests that a modest number of offenders are responsible for a disproportionate amount of crime. \textit{See, e.g.,} Sarnoff A. Mednick, \textit{A Bio-Social Theory of the Learning of Law-Abiding Behavior, in Biosocial Bases of Criminal Behavior} (Sarnoff A. Mednick & Karl O. Christiansen eds., 1977) (reporting that 1% of men in a Copenhagen birth cohort were responsible for more than half the crime); Marvin E. Wolfgang et al., \textit{Delinquency in a Birth Cohort} (1972) (reporting that 6.6% of delinquents were responsible for 52% of offenses, including 71.4% of murders and 69.9% of aggravated assaults). If one can selectively incapacitate high-rate offenders, it may be possible to substantially reduce the crime rate while avoiding the considerable human and fiscal costs associated with incarcerating large swaths of the population. A seminal work on selective incapacitation was published by RAND in 1982. \textit{See Peter W. Greenwood, Selective Incapacitation 37, xv–xvi} (1982) (suggesting that a seven-factor analysis would allow criminal justice professionals to incapacitate high-crime offenders, while subjecting other offenders to non-custodial punishments or brief terms incarceration). Greenwood’s scale was the subject of vigorous debate. \textit{See, e.g.,} John Blackmore & Jane Welsh, \textit{Selective Incapacitation: Sentencing According to Risk, 29 Crime & Delinq.} 504, 505 (1983); Andrew von Hirsch, \textit{The Ethics of Selective Incapacitation: Observations on the Contemporary Debate, 30 Crime & Delinq.} 175, 175 (1984). But whether or not the Greenwood scale is methodologically or ethically acceptable, there is good reason to think that risk-assessment instruments may once again become attractive to decision mak-}
programs and interventions that might be most helpful in prison. Whereas, those who present little risk of recidivism could be sentenced to brief terms of incarceration or non-custodial sentences. Sentences could be tailored to the particulars of the offense and the offender.

Of course, under this approach (identifying optimal sentences by matching the offender to other offenders with similar characteristics, who were sentenced for similar crimes, and then looking for the least punitive punishment that produces the lowest rate of recidivism), two offenders guilty of identical crimes may be sentenced to different sentences because of variations in their personal characteristics. Under an actuarial sentencing regime, parity-in-punishment, often described as the paramount objective of the SRA, may be compromised. But this problem may be

ers in the criminal justice system. In 2008, the United States incarcerated more than 2.2 million persons in prisons and jails; more than 1-in-100 adults were behind bars. Pew Ctr. on the States, One in 31 4–5 (2009). If one counts individuals on probation or parole (as well as those who are incarcerated), more than 7.3 million people were under state or federal supervision in 2008. Id. However, in recent years, as U.S. budgets have been slashed, many jurisdictions have struggled to operate their prisons and correctional facilities with available funds. See, e.g., Jeff Carlton, Milestone: Inmate Population Poised to Dip, S.F. Chron., Dec. 20, 2009, at A20 (“The inmate population has risen steadily since the early 1970s as states adopted get-tough policies that sent more people to prison and kept them there longer. But tight budgets now have states rethinking these policies and the costs that come with them.”). Any instrument or scale that allows decision makers to accurately identify high-rate offenders will be welcomed as a means to respond to manage social and fiscal conditions.

This was the approach adopted by the Commonwealth of Virginia; high-risk offenders are imprisoned while those who are statistically unlikely to recidivate receive non-custodial, alternative sentences. See Brian J. Ostrom et al., Nat’l Ctr. for State Courts, Offender Risk Assessment in Virginia 17 (2002); Matthew Kleiman et al., Using Risk Assessment to Inform Sentencing Decisions for Nonviolent Offenders in Virginia, 53 Crime & Delinq. 106 (2007) (both describing Virginia sentencing scheme).

With the click of a mouse, a judge could look at the specific prison programs that offenders completed while in custody, and could also look at the conditions of supervision that were imposed upon those successful offenders during supervised release. By recommending that an offender be designated to a comparable prison facility, with access to the same prison programs that highly successful offenders had completed, and by imposing comparable conditions of release that successful offenders had, a judge would provide an offender with the same environmental opportunities that appeared to make a difference for other, similarly situated offenders.

This approach is consistent with both the parsimony provision in 18 U.S.C. § 3553(a) and 18 U.S.C. § 3553(a)(6). U.S.C. § 3553(a) (2006) (“The court shall impose a sentence sufficient, but not greater than necessary”); 18 U.S.C. § 3553(a)(6) (2006) (“The court, in determining the particular sentence to be imposed, shall consider . . . the need to avoid unwarranted sentence disparities among defendants with similar records who have been found guilty of similar conduct”).

The Supreme Court endorsed an individualized approach to sentencing in Williams v. New York, 337 U.S. 241, 249 (1949). “The belief no longer prevails that every offense in a like legal category calls for an identical punishment without regard to the past life and habits of a particular offender.” Id. at 247. Of course, such an approach may be distasteful to those who favor retribution-based punishment. The notion that a first-time offender should serve a long prison sentence just because he resembles other first-time offenders (who avoided recidivism only when they received long prison sentences) may seem like punishing him for the crimes of others.

more apparent than real. After all, the ability to impose "like" sentences in "like" cases becomes possible only after someone has determined which characteristics are relevant for the purposes of punishment.  

Which characteristics are relevant? What characteristics should a sentencing information system use in matching a defendant to other offenders? Should the judge consider static factors (i.e., historical characteristics that cannot be altered, such as sex, age, or age at first arrest), dynamic factors (i.e., characteristics, resources, circumstances, behavior, or attitudes that can change throughout one's lifespan, such as drug use, association with criminal peers, or lack of remorse), or some combination of these?

Congress directed that the SRA guidelines be "entirely neutral as to the race, sex, national origin, creed, religion, and socioeconomic status of offenders" and take into account, although only to the extent that they are relevant to sentencing, eleven characteristics: (1) age; (2) education; (3) vocational skills; (4) mental and emotional conditions to the extent that such conditions mitigate the defendant's culpability or to the extent that such conditions are otherwise plainly relevant; (5) physical condition, including drug dependence; (6) previous employment record; (7) family ties and responsibilities; (8) community ties; (9) role in the offense; (10) criminal history; and (11) degree of dependence upon criminal activity for a livelihood.

So directed, the Sentencing Commission seized upon criminal history as highly relevant, but concluded that four of the eleven characteristics identified by Congress are not ordinarily relevant: a defendant's educa-

103. Most people would think nothing of it if, for sentencing purposes, a judge compared a (tall, blue-eyed, blonde) first-time offender convicted of drug trafficking to another (short, brown-eyed, redheaded) first-time offender convicted of drug trafficking. But if, for sentencing purposes, the judge compared a (tall, blue-eyed, blonde) five-time rapist to a (tall, blue-eyed, blonde) first-time drug trafficker, it would seem irrational. See Ronald Blackburn, On Moral Judgements and Personality Disorders, 153 BRIT. J. PSYCHIATRY 505, 505 (1988) ("Groups that are homogenous in terms of one domain will not be so when classified in terms of another."); Barbara S. Meierhoefer, Individualized and Systemic Justice in the Federal Sentencing Process; 29 AM. CRIM. L. REV. 889, 891 (1992) ("There is no disagreemnt that similar offenders should be sentenced similarly. The problem ... is that there is no consensus as to what defines 'similar offenders.'"). In order to say that one is comparing like defendants to like defendants, one must decide which factors are relevant. See Peter K. Westen, The Empty Idea of Equality, 95 HARV. L. REV. 537, 539-42 (1982) (noting that "likes should be treated alike" is a tautology without real explanatory value).


105. Id. 28 U.S.C. § 994(e) further directed the Sentencing Commission to assure that the guidelines reflected the general inappropriateness of considering education, vocational skills, employment record, family ties and responsibilities, and community ties in recommending a term of imprisonment. 28 U.S.C. § 994(e) (2006).

risk in sentencing

... and vocational skills, \(^\text{107}\) employment record, \(^\text{108}\) family ties and responsibilities, \(^\text{109}\) and mental and emotional conditions. \(^\text{110}\)

Of course, the federal sentencing guidelines are no longer binding, \(^\text{111}\) and federal judges are free to base their sentences upon any factors permitted by law, including those deemed not ordinarily relevant by the Commission. The language of 18 U.S.C. § 3553(a)—not 28 U.S.C. § 994(d)—drives contemporary federal sentencing.

If the judge is interested in identifying the penalty that optimally reduces the risk of recidivism, which variables are most relevant? Should the judge consider the eleven variables (age, education, vocational skills, mitigating mental and emotional conditions, physical condition, employment record, family ties, role in offense, criminal history, and dependence on crime for livelihood) that Congress directed the U.S. Sentencing Commission to consider? What about the variables that Congress told the Commission to ignore (race, sex, national origin, creed, religion, and socio-economic status)? Are there other predictors of recidivism which, according to criminological research, the judge should assess? Part III of this Article will discuss the variables that best predict reoffending.

III. USING EMPIRICAL VARIABLES TO PREDICT RECIDIVISM

Over time, social scientists have considered a host of variables and attempted to assess their relationship to recidivism. There is a broad consensus about many of these variables. Indeed, "[t]here is no disagreement in the criminological literature about some of the predictors of adult offender recidivism, such as age, gender, past criminal history, early family factors, and criminal associates." \(^\text{112}\) It would be useful for a judge to know which factors are correlated with recidivism. It would be even more useful if that judge knew a bit about how those factors might relate to recidivism. Even a cursory review of criminological research could provide judges with a much richer understanding of the variables related to recidivism. Part III.A provides an overview of the development of risk assessment and Part III.B provides some criminological background for seventeen variables deemed highly predictive of recidivism.


\(^{108}\) Id. at § 5H1.5.

\(^{109}\) Id. at § 5H1.6.

\(^{110}\) Id. at § 5H1.3.

\(^{111}\) See Rita v. United States, 551 U.S. 338, 350 (2007) (holding that the sentencing court may depart from guidelines). That being said, many sentencing judges used guidelines ranges as a kind of safe harbor of reasonableness to avoid being reversed on appeal. But even this is not absolute. See id. at 367 (Stevens, J., concurring) (noting courts of appeals should review within-guidelines sentences for reasonableness instead of treating them as per se reasonable).

\(^{112}\) Gendreau et al., supra note 39, at 576.
A. A Brief History of Predicting Recidivism

For nearly a century, social scientists have endeavored to predict recidivism. Believing that objective indicia can operate as meaningful proxies for recidivism risk, criminologists have attempted to develop accurate and reliable assessment tools. But what should those tools look like? How many variables should be included in risk assessment tools? Many? Few? 113

The pioneering parole-prediction instrument developed by Ernest Burgess employed twenty-two different variables, ranging from father's nationality to psychiatric prognosis. 114 On the other hand, the early instrument developed by Sheldon and Eleanor Glueck employed only seven factors. 115 Later, Lloyd Ohlin's model, included in the first published parole manual, Selection for Parole: A Manual of Parole Prediction, included twelve, 116 the federal salient factor score, developed by U.S. Parole Commission researchers, used nine, 117 and the Greenwood scale, devised in 1982 to identify high crime defendants for possible selective incapacitation, used seven factors. 118 Several key variables (e.g., work record, prior arrests, and psychiatric prognosis) were included in most early parole-prediction instruments. Prior criminal history appeared to be especially predictive. 119 After all, it was said that "[b]y and large, the more crimes a man has committed, the more likely he is to commit another." 120

Many of these variables still appear in contemporary prediction models. For example, comparable variables appear in risk assessment instruments such as the Level of Service/Case Management Inventory (LS/CMI), 121 Violence Risk Appraisal Guide (VRAG), 122 Lifestyle Criminal-
ity Screening Form (LCSF),\textsuperscript{123} General Statistical Information on Recidivism Scale (GSIR),\textsuperscript{124} Correctional Offender Management Profiling for Alternative Sanctions (COMPAS),\textsuperscript{125} and the Risk Prediction Index (RPI).\textsuperscript{126} These variables also appear in actuarial instruments for sex offenders, such as the Static-99,\textsuperscript{127} and in certain psychometric instruments that have been related to recidivism, such as the Hare Psychopathy Checklist-Revised (PCL-R),\textsuperscript{128} the psychopathic deviation (pd) scale of the Minnesota Multiphasic Personality Inventory (MMPI),\textsuperscript{129} and the California Personality Inventory (CPI).\textsuperscript{130} Many state specific risk instruments use analogous variables, as well.\textsuperscript{131} The appendix, infra, reveals that most available risk instruments assess many of the same variables.

Interestingly, of the hundreds of variables believed to be relevant in sentencing,\textsuperscript{132} a subset—perhaps a few dozen—appear in one form or another on most of the instruments used to predict recidivism risk in adult offenders.\textsuperscript{133} But which of these variables are most predictive?

\textsuperscript{125} NORTHPOINTE INST. FOR PUB. MGMT., CORRECTIONAL OFFENDER MANAGEMENT PROFILING FOR ALTERNATIVE SANCTIONS (1996).
\textsuperscript{128} Robert D. Hare, Hare Psychopathy Checklist-Revised (Multi-Health Systems 2002).
\textsuperscript{129} S. R. Hathaway & J.C. McKinley, Minnesota Multiphasic Personality Inventory 19–22 (1951). For efforts to relate the MMPI to future crime, see, e.g., Nathan G. Mandel & Alfred J. Barron, The MMPI and Criminal Recidivism, 57 J. CRIM. L. CRIMINOLOGY & POLICE SCI. 35 (1966).
\textsuperscript{130} Harrison G. Gough, California Psychological Inventory Administrator’s Guide 53–76 (1987) (scales used as part of California Psychological Inventory).
\textsuperscript{132} See Joanna Shapland, Between Conviction and Sentence 55 (1981) (identifying 229 factors relevant to sentencing).
\textsuperscript{133} Many of these variables relate to a set of criminogenic needs referred to as the “big six.” See Fayre S. Taxman et al., Tools of the Trade: A Guide to Incorporating Science into Practice 28 exhibit 6 (2004), available at http://www.nicic.org/pubs/2004/020095.pdf (identifying antisocial values, criminal peers, low self-control, dysfunctional family ties, substance abuse, and criminal personality as key criminogenic needs that, if unaddressed, will increase the likelihood of recidivism). Others refer to the “big four” (antisocial associates, attitudes, personality, and criminal history) or the “central eight” (the “big four” plus family/marital circumstances, school/work difficulties, antisocial leisure/recreation, and substance abuse). E.g., Andrews & Bonta, supra note 83, at 67–68, 276.
In 1996, using meta-analytic techniques, Paul Gendreau, Tracy Little, and Claire Goggins looked at 131 different studies to identify the static and dynamic variables that appear to be most predictive of reoffending. The association between these variables and recidivism should not be overstated, and it should be noted that these variables operate at the individual level (i.e., they do not look at neighborhood-level or national factors or consider the influence of the criminal justice system itself), but their analysis revealed seventeen different variables with statistically significant relationships with recidivism. Other meta-analyses have identified similar variables as influential in offending.

Composite risk scales had a weighted Pearson product-moment correlation coefficient ($z^*$) of .30. The strongest single predictor of recidivism was having criminal companions, with a weighted Pearson product-moment correlation coefficient ($z^*$) of .21. Also highly predictive were antisocial personality ($z^* = .18$), criminal history ($z^* = .17$), and race ($z^* = .17$).

Several other variables appeared to be relevant, mid-range predictors

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134. See Gendreau et al., supra note 39, at 575. Interestingly, they concluded that dynamic factors were as effective at predicting recidivism as static factors. Id. at 588.

135. The predictive validity of these variables is modest. Correlation coefficients ($r$ scores) range between .00 (no correlation) and 1.00 (perfect correlation). Andrews & Bonta, supra note 83, at 7–8. An $r$ of .20 or greater is viewed as practically important. See Gendreau et al., supra note 39, at 588. Given a minimal correlation coefficient (e.g., $r = .05$), however, the corresponding area under the curve (AUC) statistic is only .53, or slightly higher than random chance (AUC = .50). See Andrews & Bonta, supra note 83, at 271, 275 (converting between $r$ and AUC statistics). The strongest single correlation in Gendreau’s analysis is .21, which equals an AUC value of about .61.

136. Gendreau et al., supra note 39, at 563 tbl.1; see also Andrews & Bonta, supra note 83, at 275. Still, it would be wrong to dismiss these variables just because they do not perfectly predict recidivism (AUC = 1.0). See Andrews & Bonta, supra note 83, at 275–76. Even the well-accepted relationship between heart attacks and the combination of bad cholesterol, smoking, and hypertension only produce AUC values in the .74–.77 range. Id. at 276.

137. Gendreau et al., supra note 39, at 582–83.


139. Gendreau et al., supra note 39, at 583 tbl.1; see also Andrews & Bonta, supra note 83, at 7.

140. Id. at 583. A comparable meta-analysis of juvenile offending found that criminal history was the strongest predictor of recidivism in that population. See Cindy C. Cottle et al., The Prediction of Criminal Recidivism in Juveniles: A Meta-Analysis, 28 CRIM. JUST. & BEHAV. 367, 384–85 (2001).

141. Gendreau et al., supra note 39, at 583 tbl.1, 597 (counting the “MMPI Pd, Megargee system, EPI-Psychoticism, CPI-Soc, PCL-R, DSM-III personality disorders, any indices of egocentric thinking” as indicia of antisocial personality variables).

142. Id. (counting “antisocial attitudes supportive of an antisocial lifestyle and behavior regarding employment, education”).

143. Id. (counting “adult-prior arrest, probation, jail, conviction, incarceration, prison misconducts” as indicia of adult criminal history).

144. Id. (counting “white vs. black/Hispanic/native”).
of recidivism: pre-adult antisocial behavior \( (z^* = .16) \), \(^{145}\) family rearing practices \( (z^* = .14) \), \(^{146}\) social achievement \( (z^* = .13) \), \(^{147}\) interpersonal conflict \( (z^* = .12) \), \(^{148}\) and current age \( (z^* = .11) \). \(^{149}\)

Other variables were weak-but-significant predictors of recidivism: substance abuse \( (z^* = .10) \), \(^{150}\) family structure \( (z^* = .09) \), \(^{151}\) intellectual functioning \( (z^* = .07) \), \(^{152}\) family criminality \( (z^* = .07) \), \(^{153}\) gender \( (z^* = .06) \), \(^{154}\) socio-economic status of origin \( (z^* = .05) \), \(^{155}\) and personal distress \( (z^* = .05) \). \(^{156}\)

Judges employing these factors at sentencing would be on safe ground, mostly. \(^{157}\) Adult criminal history is a relatively uncontroversial measure, after all, even among retributivists. \(^{158}\) Similarly, considerations of employment, which is an aspect of social achievement, engender little debate. \(^{159}\) But other variables would be problematic, either because they

\(^{145}\) Id. (counting “preadult—prior arrest, probation, jail, conviction, incarceration, alcohol/drug abuse, aggressive behavior, conduct disorder, behavior problems at home and school, delinquent friends” as indicia of pre-adult antisocial behavior).

\(^{146}\) Id. (counting “lack of supervision and affection, conflict, abuse” as relevant indicia of family rearing practices).

\(^{147}\) Id. (counting “marital status, level of education, employment history, income, address changes” as indicia of social achievement).

\(^{148}\) Id. (counting “family discord, conflict with significant others” as indicia of interpersonal conflict).

\(^{149}\) Id. (counting age “at time of data collection/assessment” as relevant variable).

\(^{150}\) Id. (counting “recent history of alcohol/drug abuse” as indicator of substance abuse).

\(^{151}\) Id. (counting “separation from parents, broken home, foster parents” as indicia of family structure).

\(^{152}\) Id. (counting “WAIS/WISC, Raven, Porteous Q score, learning disabilities, reading level” as indicia of intellectual functioning).

\(^{153}\) Id. (counting “parents and/or siblings in trouble with the law” as indicia of family criminality).

\(^{154}\) Id. (counting “[g]ender” as appropriate measure).

\(^{155}\) Id. (counting “socioeconomic status (SES) of parents (parental occupation, education, or income)” as indicia of social class of origin).

\(^{156}\) Id. (counting “anxiety, depression, neuroticism, low self-esteem, psychiatric symptomatology (i.e., psychotic episodes, schizophrenia, not guilty by reason of insanity, affective disorder), attempted suicide, personal inadequacy” as indicia of personal distress).

\(^{157}\) See Brian Netter, Using Group Statistics to Sentence Individual Criminals: An Ethical and Statistical Critique of the Virginia Risk Assessment Program, 97 J. CRIM. L. & CRIMINOLOGY 699, 716 (2007) (“If a model could be crafted based only on these criminologically-based variables [like past crimes, the nature of the instant offense, and remorse], few would complain.”).

\(^{158}\) See U.S. SENTENCING COMM'N, supra note 66.

The criminal history score was designed to predict recidivism, but uses only criminal history to do so (as opposed to also using employment or drug use history, as had the Parole Commission's salient factor score). In this way, the Commission sought to reduce the tension between preventing future crime and just punishment for the current crime.

are difficult to evaluate, or because they deal with constitutionally suspect categories. Problematically, several variables that appear to be significantly correlated with recidivism are constitutionally suspect: race, age, gender, and socio-economic status.

In some ways, the situation appears to be a “two cultures” problem. Criminologists use these variables in their models because they are predictive. For their purposes, it does not matter whether these characteristics are deemed off-limits by constitutional scholars and lawyers. But the use of these variables may give those engaged in actual criminal sentencing great pause.

The [risk] prediction instruments were generated, created, driven by sociology and criminology. They came from the social sciences. They were exogenous to the legal system. They had no root, nor any relation to the jurisprudential theories of just punishment. They had no ties to our long history of Anglo-Saxon jurisprudence—to centuries of debate over the penal sanction, utilitarianism, or philosophical theories of retribution. And yet they fundamentally redirected our basic notion of how best and most fairly to administer the criminal law.

It very well may be that use of these variables should give sentencing judges pause, but there is no doubt that, correctly applied, risk assessment instruments can yield modest improvements in the precision of judges adjudicating on utilitarian grounds. Although applying suspect categories to sentencing decisions might make judges nervous, the variables identified in Gendreau’s meta-analysis are rooted in a well established body of social science research. Part III.B will describe some of this work.

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160. For example, intellectual functioning and personal distress rely upon clinical assessments. See, e.g., WISC-IV: CLINICAL ASSESSMENT AND INTERVENTION 2E 4 (Aurelio Prifitera et al. eds., 2d ed. 2008); TIMOTHY J. TRULL, CLINICAL PSYCHOLOGY, 122-23 (7th ed. 2005).

161. For example, although race is correlated to recidivism as closely as adult criminal history, race-based classifications are analyzed with strict scrutiny. See Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 227 (1995); see also Gendreau et al., supra note 39, at 583.


163. See Gendreau et al., supra note 39, at 579.

164. See Michael Tonry, Prediction and Classification: Legal and Ethical Issues, 9 CRIME & JUST. 367, 397 (1987) (noting however that “[m]any people believe it unjust to base punishment decisions on factors over which the offender has no control”).

165. See id. at 398.

166. HARCOURT, supra note 15, at 188.

B. Criminalological Evidence for Predictor Variables

James Austin has noted that criminology is often irrelevant to policy, but Erik Luna has suggested that criminology could do much to inform the criminal law. This is particularly true with sentencing. Empirical data can provide judges with essential information about the factors associated with increased risks of future crime; research about these variables can provide a theoretical context for understanding risk. Some of the criminological literature for the seventeen variables identified as predictive by Gendreau is summarized, infra.

1. Criminal Companions

The notion that criminal companions \((z^+ = .21)\) might lead to criminal behavior lies at the heart of the theory of differential association. In articulating this theory, criminologist Edwin Sutherland suggested that criminal behavior is learned, like any other behavior, and is adopted principally through contacts with intimate personal groups. Of course, whether criminal peers cause crime, through reinforcement of criminal attitudes and behaviors, or are selected as peers because of their pro-criminal values remains unclear. However, Gendreau’s meta-analysis did not attempt to disentangle causality, it only sought to establish the correlation between recidivism and criminal companions. And that correlation does exist. Indeed, differential association has found considerable support in empirical research. For example, Travis Hirschi acknowledged the fundamental importance of criminal peers among juvenile delinquents when he pithily observed, “[m]ost delinquent acts are committed with companions; most delinquents have delinquent peers.”

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170. Gendreau et al., supra note 39, at 583.
172. Id. at 79-82.
173. See WILSON & Herrnstein, supra note 167, at 292–99 (noting that the direction of causality between having criminal peers and crime is unknown).
176. See ELLIS et al., supra note 167, at 98, tbl.4.6.3a (summarizing literature supporting link between delinquent peers and crime); Charles R. Tittle, et al., Modeling Sutherland’s Theory of Differential Association: Toward an Empirical Clarification, 65 SOC. FORCES 429 (1986) (noting that “[d]espite some important anomalies, our findings support the major theme of Sutherland’s thinking. Association with criminal definitions does seem to be a generator of crime, and it appears to exercise its influence indirectly through its effect on a learned symbolic construct—motivation to engage in criminal behavior.”).
friends.\textsuperscript{177} The influence of criminal peers also appears to be important among recidivating adults. While most adult crime is committed alone,\textsuperscript{178} Reiss found that career offenders regularly engage in co-offending.\textsuperscript{179}

2. **Criminogenic Needs**

Gendreau and his colleagues reported a reasonably robust association between antisocial attitudes and recidivism ($z^* = .18$).\textsuperscript{180} Specifically, their meta-analysis indicated that those who hold antisocial attitudes that support antisocial lifestyles, dismissing pro-social values of employment and education, are more likely to recidivate. For decades, criminologists have understood that offenders frequently harbor antisocial attitudes and hold antisocial values that allow them to engage in criminal behavior.\textsuperscript{181} Numerous studies have related antisocial attitudes with criminality.\textsuperscript{182} Because of the strength of the relationship, some criminologists count criminal values among the “big six” criminogenic needs;\textsuperscript{183} others include antisocial cognitions among the “big four” and “central eight” criminogenic needs.\textsuperscript{184}

3. **Antisocial Personality**

Antisocial personality was also predictive of recidivism ($z^* = .18$).\textsuperscript{185} Certain personality traits appear to be associated with crime,\textsuperscript{186} and a relationship has been posited between certain cognitive styles and offending.\textsuperscript{187} A number of personality dimensions appear to be especially cor-

\textsuperscript{178} See Wilson & Herrnstein, supra note 167, at 292 (observing that “most juvenile crime, unlike most adult crime, is committed by persons in groups”).
\textsuperscript{179} See, e.g., Albert J. Reiss, Jr., Co-offending and Criminal Careers, 10 Crime & Just. 117, 123 (1988) (noting that career criminals often engage in co-offending as well as solo crime).
\textsuperscript{180} Gendreau et al., supra note 39, at 583.
\textsuperscript{182} See Ellis et al., supra note 167, at 139–50, 242 (summarizing studies relating antisocial attitudes to criminal behavior).
\textsuperscript{183} See Faye S. Taxman et al., supra note 133, at 28 exhibit 6 (listing “big six” criminogenic needs).
\textsuperscript{184} See Andrews & Bonta, supra note 83, at 67–68, 276 (listing “central eight” and “big four” criminogenic needs).
\textsuperscript{185} Gendreau et al., supra note 39, at 583.
related with criminal behavior: impulsivity, low self-control, and a limited capacity for empathy. Indeed, a lack of empathy is the hallmark trait of the psychopath, a class of persons dramatically overrepresented in the criminal justice system. The diagnosis of an antisocial personality disorder, closely aligned with the concept of psychopathy (as described by Hervey Cleckley, Robert Hare, Ronald Blackburn, and Adrian Raine) is highly correlated with offending behavior. It has been associated with recidivism.

4. Adult Criminal History

Although there are policy pitfalls to be found even in something as obviously tied to sentencing as criminal history, adult criminal history

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188. See Wilson & Herrnstein, supra note 167, at 204–205 ("Many of the correlates of offending may relate to impulsiveness . . . .").
190. See Glueck & Glueck, supra note 186, at 240–41 (identifying, inter alia, "lack of concern for others" as a personality trait of antisocial youth); Miller & Lynam, supra note 179.
192. See Larry J. Siegel, Criminology 164 (8th ed. 2003) ("Criminologists estimate that 10 percent or more of all prison inmates display psychopathic tendencies."); Robert I. Simon, Bad Men Do What Good Men Dream 33 (1996) (reporting prevalence of psychopathy as 3% among men, less than 1% among women, with population average of 2.8%, but noting that "[i]n certain prison populations, 75% of the inmates may have the disorder"). The relationship between psychopathy and crime is so entangled that some have criticized the concept. See, e.g., Glenn D. Walters, The Trouble with Psychopathy as a General Theory of Crime, 48 Int’l J. Offender Therapy & Comp. Criminology 133, 133 (2004) (noting that psychopathy is often used tautologically, is oversimplified, and is applied via fundamental attribution error). Others, however, have lauded psychopathy as being among the most useful approaches to the study of crime. See, e.g., Matt DeLisi, Psychopathy Is the Unified Theory of Crime, 7 Youth Violence and Juv. Just. 256, 256 (2009) ("I argue that psychopathy is the unified theory of delinquency and crime and the purest explanation of antisocial behavior."). While scores on measurement instruments may be correlated with recidivism, it is not obvious that psychopathy is actually a disorder. See Grant T. Harris et al., The Construct of Psychopathy, 28 Crime & Just. 197, 230 (1998) (concluding that “psychopaths do not seem disordered”).
193. See Am. Psychiatric Ass’n, Diagnostic and Statistical Manual of Mental Disorders 649–50 (4th ed., 1994) (counting arrestable acts, deceitfulness, impulsivity, aggressiveness, reckless disregard for safety, irresponsibility, and lack of remorse among those 18 or older as diagnostic criteria).
195. See Hare, supra note 191 (describing psychopaths).
196. See Blackburn, supra note 103, at 507 (reviewing psychopathy literature).
198. See Seena Fazel & John Danesh, Serious Mental Disorder in 23,000 Prisoners: A Systematic Review of 62 Surveys, 359 Lancet 545, 547–48 (2002) (finding that in a 12-country survey of almost 23,000 prisoners, 47% of males and 21% of females were diagnosed with antisocial personality disorder).
is the staple of risk prediction. As Spohn has written, “Studies of judges' sentencing decisions reveal that these decisions are based first and foremost on the seriousness of the offense and the offender’s prior criminal record. . . . Offenders with more extensive criminal histories receive more severe sentences than those with shorter criminal histories.”

Criminal history may be especially attractive to judges because it realizes utilitarian penal objectives while finding its roots in retributivism. Gendreau’s meta-analysis also found it to be a reasonably strong predictor of recidivism (z = .17). Furthermore, a “long arrest record” was included in Gottfredson’s empirically-derived measure of risk. This is consistent with other research. After all, it has been said that “nothing predicts behavior like behavior.” The U.S. Sentencing Commission has suggested that the criminal history categories of the sentencing guidelines, which categorize offenders by frequency, seriousness, and recency of prior offenses, are highly predictive of future recidivism. The U.S. Parole Commission’s salient factor score, counting forms of prior criminal history for three of nine measured variables, is even more predictive of recidivism than the Commission’s criminal history categories.

5. Race

Race was also identified as a reasonably strong predictor in Gendreau’s analysis. In fact, it was as correlated to recidivism as was adult criminal history (z = .17). Race was also identified as a variable in Gottfredson’s empirically-derived measures of risk, and it appeared as a significant predictor in the initial development of the Virginia Criminal

201. See supra notes 119–20 and accompanying text.
203. See supra note 158, and accompanying text.
204. Gendreau et al., supra note 39, at 583.
211. Gendreau et al., supra note 39, at 583 tbl.1.
212. Gottfredson, supra note 10, at 5.
Sentencing Commission’s risk prediction instrument. However, it is not directly assessed in any risk prediction instrument in general use.

That race is associated with recidivism is unsurprising. Flowers has observed, “Race and, to a lesser extent, ethnicity are among the strongest predictors of crime involvement.” Certainly, it is associated with punishment. Whereas the overall U.S. incarceration rate is approximately 756 per 100,000 (the highest rate in the world—roughly five-to-twelve times the rate of comparable industrialized nations), racial groups are not incarcerated in the United States at equivalent rates. In fact, a 2007 study revealed that while U.S. whites are incarcerated at a rate of 412 per 100,000, Hispanics are incarcerated at a rate of 742 per 100,000, and African-Americans are incarcerated at a rate of 2,290 per 100,000! In some states, African-Americans are incarcerated at rates greater than 4,000 per 100,000. Although the explanation is debated, it is a fact that in the

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213. Race was strongly significant in the analysis, but it was excluded from Virginia’s risk prediction instrument because it was viewed as a proxy for “economic deprivation, inadequate educational facilities, family instability, and limited employment opportunities, many of which disproportionately apply to the African-American population.” Ostrem et al., supra note 98, at 27–28.

214. Early risk instruments assessed nationality. See, e.g., Burgess, supra note 114, at 221. Contemporary risk instruments no longer do so, but they do assess other variables which co-vary meaningfully with race, such as socioeconomic status, education, or family criminality. Criminal history is especially problematic. Consequently, while race may not be measured directly, other risk variables may operate as a proxy for race. See Bernard E. Harcourt, Risk as a Proxy for Race (John M. Olin Law & Economics, Working Paper, No. 535 (2010)), (forthcoming in Criminology & Pub. Pol’y), www.law.vchicago.edu/files/file535-523-6h-race.pdf; see also Petersilia & Turner, supra note 42 (noting the systematic correlation of risk variables with race).

215. See, e.g., Ellis et al., supra note 167, at 20–32 (summarizing literature supporting relationship between race and crime); Virginia McGovern et al., Racial and Ethnic Recidivism Risks, 89 Prison J. 309, 309 (2009) (analyzing Bureau of Justice statistics and concluding that in the three years after release from state and federal prisons in 1994, white offenders had the lowest rate of recidivism, black offenders had the highest rate of recidivism, and Hispanic offenders had a rate between black and white offenders).


219. Id. at tbl.3.

U.S., minorities are arrested at higher rates than whites. While African-Americans constitute approximately 12.9% of the general population, they accounted for 50.1% of the 2008 arrests for murder and non-negligent manslaughter, 32.2% of the arrests for forcible rape, and 56.7% of the arrests for robbery. In fact, African-Americans are disproportionately arrested for all 29 listed offenses in the FBI’s Uniform Crime Reports except two: driving under the influence (10.0%) and liquor laws (11.5%). African-Americans are not only more likely to be arrested, they are also more likely to be re-arrested. Indeed, a massive body of research shows that African-Americans and Hispanics are more likely to be re-arrested than whites. There may be sound reasons to exclude race from risk prediction instruments, and contemporary risk instruments do not include race as an explicit factor, but there is little

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223. See Fed. Bureau of Investigation, supra note 221.

224. Id.

225. Id.

226. Id.


228. See Netter, supra note 157 at 718. See generally infra Part IV (outlining practical, legal, and philosophical obstacles to judicial consideration of suspect factors at sentencing).
disputing that race operates as a robust predictor of re-arrest in modern America.

6. Pre-Adult Antisocial Behavior

Further supporting the proposition that "nothing predicts behavior like behavior," Gendreau found that juvenile antisocial behavior was a relevant, mid-range predictor of adult recidivism ($z^* = .16$). It seems as if some people with a propensity to break rules as children—and to be sanctioned for it—go on to break laws as adults and to be sanctioned for it. There is a considerable body of work indicating that juvenile delinquents are more likely to engage in adult crime. For example, in analyzing fifteen longitudinal studies of offending across the life course, Elaine Eggleston and John Laub found that more than half of juvenile delinquents went on to become adult offenders. Some researchers have reported even higher rates among males released from juvenile facilities, with more than eighty percent of releases later classified as adult offenders. In fact, the relationship between juvenile offending and adult offending is so robust that many criminologists have questioned whether adult-onset criminality is a genuine phenomenon.

7. Family Rearing Practices

Gendreau also found that family rearing practices was a relevant, mid-range predictor of adult recidivism ($z^* = .14$). There is a substantial body of work reporting a relationship between the extent of parental supervision and offending. "[N]early all of these studies have concluded that as the degree of supervision monitoring increases, involvement of..."
offspring in crime and delinquency decreases." Similarly, where family relationships are conflicted, crime and delinquency appear to be more prevalent. This finding has been replicated in the United States, Britain, and New Zealand. Where there is actual neglect or abuse in the family, rates of delinquency and adult criminality are also elevated, although it is possible that race may affect the strength of this relationship. Given the robust effect of intra-family conflicts on offending, it should come as no surprise that negative family rearing practices are also associated with recidivism.

8. Social Achievement

Social achievement, a composite measure of variables including marital status, level of education, employment history, and income, appears to be another relevant, mid-range predictor of adult recidivism ($z^* = .13$). Flowers writes, "[t]he evidence suggests that there exists a strong correlation between involvement in crime and the variables of employment, income, education, and marital status." Most of the criminological literature indicates that, all things being equal, married people exhibit lower rates of offending than unmarried people. Recidivism research produces the same result: married offenders are less likely to reoffend. Like marriage, education is negatively associated with offending.

237. Ellis et al., supra note 167, at 93.
238. See, e.g., Gustavo Carlo et al., The Multiplicative Relations of Parenting and Temperament to Prosocial and Antisocial Behaviors in Adolescence, 18 J. EARLY ADOLESCENCE 266, 274 (1998).
239. See David P. Farrington et al., Long-Term Criminal Outcomes of Hyperactivity-Impulsivity-Attention Deficit and Conduct Problems in Childhood, in STRAIGHT AND DEVIANT PATHWAYS FROM CHILDHOOD TO ADULTHOOD 62 (Lee N. Robins & Michael Rutter eds., 1990).
240. See Moffitt et al., supra note 235.
242. See Candace Kruttschnitt & Maude Dornfeld, Childhood Victimization, Race, and Violent Crime, 18 CRIM. JUST. & BEHAV. 448, 448 (1991) (noting significant association between abuse and offending for white subjects but finding the relationship to be statistically insignificant for black subjects).
243. Gendreau et al., supra note 39, at 583 tbl.1, 597.
244. Flowers, supra note 216, at 113.
"[T]he vast majority of studies have concluded that as an individual's years of education increase, his or her probability of criminal behavior decreases." 248  Similar research has demonstrated a negative relationship between education and recidivism: those with greater education are less likely to reoffend. 249  Work also appears to play an important role in inhibiting crime. Frequent unemployment and frequent job changes are both positively associated with offending, 250  and both are positively associated with recidivism. 251  Income matters, too. Sociologically-oriented criminologists often focus on poverty as an explanation for crime, 252  and that explanation is borne out by a significant body of research. 253

9. Interpersonal Conflict

Interpersonal conflict, marked by family discord or conflict with significant others, is another mid-range predictor of adult recidivism ($z^* = .12$). 254  A substantial body of research has shown a positive relationship between discordant family relationships and offending 255  and indicated that delinquents have fewer friends than do non-delinquents: "[s]tudies have unanimously concluded that delinquents have fewer friends than do their relatively nondelinquent peers." 256  Criminologists have reported that the relationship between family discord and offending also relates to recidivism: people who are reared in families marked by high levels of conflict and argument are more likely to reoffend. 257

10. Current Age

Gendreau's meta-analysis also indicated that age at the time of risk assessment is a mid-range predictor of adult recidivism ($z^* = .11$). 258  Many criminologists have written about the link between age and

248. Ellis et al., supra note 167, at 36.
251. See Gottfredson & Gottfredson, supra note 84, at 243 (relating job stability to parole success).
252. See Ellis et al., supra note 167, at 36 ("Many of the most popular theories of criminal behavior have focused on poverty as a major causal factor.").
254. Gendreau et al., supra note 39, at 583 tbl.1, 597.
256. Ellis et al., supra note 167, at 98.
258. Gendreau et al., supra note 39, at 583 tbl.1, 597.
crime, prompting Flowers to write, "[t]he demographic correlate most strongly associated with crime is age." Siegel has concurred, observing that "[t]here is general agreement that age is inversely related to criminality." Further, Hirschi and Gottfredson noted, "[a]ge is everywhere correlated with crime." Of course, the relationship between age and crime is not linear; very young children rarely commit crimes. Rather, the relationship between age and crime is curvilinear, with the highest rates of arrest for property crime occurring at age sixteen (and dropping to half of the apex by age twenty), and the highest rates of violent crime occurring at age eighteen. Those between the ages of about fifteen or sixteen and twenty-four or twenty-five appear to be at greatest risk of offending, but after that period, for a variety of possible reasons, adults gradually "age out" of crime.

II. Substance Abuse

Gendreau's meta-analysis indicated that a recent history of drug abuse, alcohol abuse, or both is a weak, but still statistically significant, predictor of adult recidivism ($z^* = .10$). A wealth of criminological studies have identified a series of complex linkages between alcohol, drugs, and offending.

The relationship of drug use/abuse and criminal behavior manifests itself in several ways. Foremost perhaps is the possession and use of drugs and alcohol where prohibited by law. This has a wide-ranging effect, since it can involve both legal and illegal drugs as well as drugs (such as alcohol) that are legal for adult users but illegal for minors. Second, drug use can act as a precipitating correlate of violent or serious behavioral patterns. Third, drug users may resort to economic crime as a means to support their habit. A final association between crime and drug use is drug dealing and the often high financial stakes, violence, and other crimes involved in the illicit drug trade.


260. Flowers, supra note 216, at 63.


262. Hirschi & Gottfredson, supra note 261, at 581.

263. See Siegel, supra note 254, at 67.


265. See Gottfredson & Hirschi, supra note 189, at 263. In their book, A General Theory of Crime, Gottfredson and Hirschi imagine how age might be used in a system of selective incapacitation. See id. at 263–65. Of course, the principle of age-based incapacitation has no obvious stopping point, leading Harcourt to caution: "Taken to its extreme, the incapacitation argument favors full incarceration of, say, the entire male population between the ages of 16 and 24. That, of course, is absurd—or at least, should be absurd." Harcourt, supra note 15, at 31.

266. See Wilson & Herrnstein, supra note 167, at 143.

267. Gendreau et al., supra note 39, at 583 tbl.1, 597.

268. See, e.g., Flowers, supra note 216, at 125–38.

269. Id. at 125.
Summarizing the data that relates alcohol to offending, Ellis and his colleagues note, "The evidence overwhelmingly supports the conclusion that alcohol use and criminality are positively correlated." There is also research establishing a positive relationship between alcoholism and offending, and a body of research indicating an association between alcohol use, alcoholism and recidivism. The use of illegal drugs is by definition criminal, but it has also been linked to both juvenile and adult offending and to adult recidivism.

12. Family Structure

Gendreau's meta-analysis indicated that separation from parents, broken homes, and placement with foster parents was a weak, but still statistically significant, predictor of adult recidivism ($z^* = .09$). The research on the association between one-parent homes and crime is mixed, with many studies indicating a positive relationship between broken homes and delinquency but other studies that reveal no such relationship. As a general matter, however, the bulk of criminological research indicates that children raised in one-parent homes are more likely to engage in acts of delinquency and crime. This makes intuitive sense; "if one parent must do the work of two, then, at the margin, less of that work will get done. . . . Thus, we should expect to find more delinquency among some kinds of broken homes." Being raised in a one-parent home is associated with recidivism, as well. Ellis and his colleagues summarize the research on one-parent homes and crime thusly:

Whether children are reared by a single parent or by both parents living together in the same household indicates the intactness of the parent's marital bond. Nonintact families (or broken homes) are most often the result of divorce or separation, although the death of one parent is also a cause. Research concerned with links between broken homes and officially identified offending . . . reveal that

275. Gendreau et al., supra note 39, at 583 tbl.1, 597.
276. See Wilson & Herrnstein, supra note 167, at 245–47.
277. Id. at 249.
278. See Ellis et al., supra note 167, at 85 tbl.4.4.11a.
crime and delinquency are higher among persons who come from
broken homes than those who come from intact families.279

The research about whether being raised by a mother is more or less
likely to lead to delinquency than being raised by a father remains equiv-
cocal,280 but the limited research on the subject suggests that residing with
neither parent is also associated with increased levels of crime.281

13. Intellectual Functioning

Intellectual functioning, an aggregate measure consisting of IQ
scores, learning disabilities, and reading levels, was identified as another weak,
but still significant, predictor of adult recidivism ($z^+ = .07$).282 This, too, is
unsurprising, as many criminologists have asserted a strong relationship
between below-average intellectual ability and offending.283 Indeed, the
relationship between low IQ and offending among young people has
been characterized as “one of the most robust findings across numerous
studies of juvenile delinquency.”284 More than 100 studies have exam-
ined whether a link between grades and offending exists, and most of
these have reported a significant association.285 Furthermore, a relation-
ship exists between low grades and recidivism.286 Below-average IQ
scores have been related to offending, as well.287 Those with IQ scores
about eight points below the population average are more likely to en-
gage in criminal conduct than those at the population average,288 and a
substantial body of work has indicated positive relationships between low
IQ and delinquency,289 adult offending,290 and recidivism.291

279. Id. at 84.
280. See id. at 88.
281. See id. at 84.
282. Gendreau et al., supra note 39, at 583 tbl.1, 597.
283. See generally, e.g., RICHARD J. HERRNSTEIN & CHARLES MURRAY, THE BELL
CURVE: INTELLIGENCE AND CLASS STRUCTURE IN AMERICAN LIFE 235–51 (1994);
WILSON & HERRNSTEIN, supra note 167, at 148–72; Travis Hirschi & Michael J. Hindelang,
Intelligence and Delinquency: A Revisionist Review, 42 AM. SOC. REV. 571 (1977) (all asserting
negative relationship between intelligence and crime).
284. Donald Lynam et al., Explaining the Relation Between IQ and Delinquency: Class,
Race, Test Motivation, School Failure, or Self-Control?, 102 J. ABNORMAL PSYCHOL. 187,
286. See Anthony Meade, Seriousness of Delinquency, the Adjudicative Decision and
Recidivism: A Longitudinal Configuration Analysis, 64 J. CRIM. L. & CRIMINOLOGY 478,
484 (1973).
287. See Hirschi & Hindelang, supra note 283, at 584.
288. See id. at 581, 584.
289. See, e.g., GLUECK & GLUECK, supra note 186; Lynam et al., supra note 284, at
193–94.
290. See, e.g., David P. Farrington, Childhood Origins of Teenage Antisocial Behaviour
and Adult Social Dysfunction, 86 J. ROYAL SOC’Y MED. 13, 15–16.
291. See, e.g., Paul Richter et al., Forecasting Recidivism in Delinquency by Intelligence
and Related Constructs, 36 MED. SCI. & L. 337, 339–41 (1996); Håkan Stattin et al., Per-
sonal Resources as Modifiers of the Risk for Future Criminality, 37 BRIT. J. CRIMINOLOGY
14. Family Criminality

Family criminality was identified as another weak, but still significant, predictor of adult recidivism ($z^+ = .07$). Early theorists believed that crime ran in deviant families. After all, it is said that “the acorn does not fall far from the tree.” And while there are thorny and unanswered questions about the relative contributions of environmental, biological, psychological, genetic, and social influences on crime, research consistently indicates that criminal parents are more likely to raise criminal children than non-criminal parents. Indeed, some researchers have argued that parental criminality is the strongest family-related variable in predicting a child’s likelihood of involvement in serious delinquency or crime. The effect of parental criminality can be profound. In the long running Cambridge Youth Survey, about 8% of boys with non-criminal fathers became chronic offenders, but 37% of boys with criminal fathers did so. Family criminality has also been associated with recidivism: those with criminal parents are more likely to reoffend than those without criminal parents.

15. Gender

Gender, too, was identified as another weak, but still significant, predictor of adult recidivism in Gendreau’s meta-analysis ($z^+ = .06$). A substantial body of criminological research indicates that men are significantly more likely to engage in criminal conduct (especially serious criminal conduct) than women. “The evidence indicates that sex is a significant factor in crime, and that males commit considerably more criminal acts than females.” Whether criminologists measure crime with official (arrest) statistics, victimization studies, or self-report studies, data suggest that males are more criminal than females. Both biolog-
cal and social factors may play a role in explaining this difference, but the male and female crime gap appears to be an international phenomenon: "in all societies, males are more likely to be identified as criminals by the criminal justice system." Most published studies also indicate that males are more likely to recidivate than females.

16. Socio-Economic Status of Origin

Socio-economic status of origin—a measure reflecting parental education, occupation, and income—is another weak, but still significant, predictor of adult recidivism ($z^* = .05$). Ellis and his colleagues report that "there is a negative relationship between parental status and offspring criminality except possibly in the case of overall self-reported delinquency, where the findings have been mixed." One study linking parental education to delinquency found that a father's level of education was negatively correlated with offending (i.e., as a father's educational level increased, offending behavior decreased), but did not identify a significant association between a mother's education levels and offending. This study also reported a negative relationship between parental income and delinquency: as parents' incomes increased, offending decreased. Studies have also reported a negative relationship between the status of parents' occupations and delinquency: as status increased, levels of delinquency and crime decreased.

17. Personal Distress

Finally, personal distress—evidence of psychiatric disorder—appeared in Gendreau's meta-analysis as another weak, but still significant, predictor of adult recidivism ($z^* = .05$). The question of whether there is an association between mental illness and crime is controversial, and the findings are often contradictory. Ellis and his colleagues summarized the extant research: "the vast majority of studies have found a significant positive relationship between mental illness and officially detected in-
volvement in criminal/delinquent behavior.”315 Statistics indicate that mentally ill offenders are disproportionately arrested and convicted,316 and most studies indicate a positive relationship between mental illness and self-reported offending.317 McManus and his colleagues reported a positive correlation between subclinical depression and recidivism,318 although other researchers have concluded that it is not mental illness that leads mentally ill offenders to recidivate, but other risk factors such as criminal history, substance abuse, or family rearing practices.319

To recapitulate, Gendreau’s meta-analysis identified seventeen discrete variables that appeared to be significantly associated with recidivism. In descending order of strength of association, they are: (1) criminal companions, (2) criminogenic needs, (3) antisocial personality, (4) adult criminal history, (5) race, (6) pre-adult antisocial behavior, (7) family rearing practices, (8) social achievement, (9) interpersonal conflict, (10) current age, (11) substance abuse, (12) intellectual functioning, (13) family structure, (14) criminality, (15) gender, (16) socio-economic status of origin, and (17) personal distress.320 Of course, these seventeen variables do not operate in isolation. They interact. For example, adult criminal history operates, at least in part, as a function of age.321 It also may be meaningfully associated with race.322 In one way or another, many of the variables correlated with recidivism are also correlated with social disadvantage.323

Using regression analysis, criminologists can try to disentangle the influence of the seventeen variables from each other, but in practice, social

315. ELLIS ET AL., supra note 167, at 162.
317. See, e.g., Bruce G. Link et al., The Violent and Illegal Behavior of Mental Patients Reconsidered, 57 AM. SOC. REV. 275 (1992).
320. Gendreau, supra note 39.
321. See Shawn D. Bushway & Anne Morrison Piehl, The Inextricable Link Between Age and Criminal History in Sentencing, 33 CRIME & DELINO. 156, 157 (2007) (noting that older people have had more time to accumulate criminal history events and that, therefore, two offenders with identical criminal history may not be identical in terms of either culpability or crime control interests).
322. See Harcourt, supra note 214.
323. The Virginia Criminal Sentencing Commission decided to omit race from its risk assessment instrument on the grounds that race was highly correlated with social and economic disadvantage. See OSTROM ET AL., supra note 98, at 27–28. It did not, however, strike gender from the instrument, even though women earn lower wages than men and enjoy less professional status than men. See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, WOMEN’S EARNINGS: FEDERAL AGENCIES SHOULD BETTER MONITOR THEIR PERFORMANCE IN ENFORCING ANTI-DISCRIMINATION LAWS; REP. GAO-08-799 (2008) (reporting that in 2000, after controlling for experience, education, work conditions, and demographics, women earned only eighty percent of what men earned). Netter asks, “[I]s race the only demographic variable that affects, for example, employment prospects? Characteristics such as ethnicity and religion have both permissible and impermissible covariates. They deserve the same treatment as race.” Netter, supra note 157, at 718.
problems often cluster (e.g., individuals with limited intellectual function-
ing often enjoy low social achievement; individuals with many criminal
peers often have significant histories of juvenile antisocial behavior and
adult crime). Those who are interested in evidence-based sentencing
must proceed with caution; even if a statistically-meaningful variable is
eliminated from a risk assessment instrument on principle (e.g., removing
race from the Virginia instrument), that variable may continue to exert
gravity upon the remaining variables (e.g., criminal history, social
achievement, or socio-economic status of origin).

While the seventeen variables identified in Gendreau's meta-analysis
represent a substantial body of criminological research and indicate key
characteristics that are predictive of recidivism, employing those variables
in evidence-based sentencing decisions may prove difficult. Some vari-
ables will be difficult for courts to know (e.g., ascertaining intellectual
functioning may require clinical assessment). In addition to logistical
challenges, courts may face legal challenges. Due process claims and
equal protection challenges may limit the ability of judges to rely on cer-
tain types of data in sentencing decisions. Suspect variables may or may
not survive strict scrutiny analysis. Philosophical concerns may present
challenges, too. Using group statistics to sentence individual defendants
may seem unfair to sentencing judges, like "justice" from the film Minority
Report.324 And while some characteristics may justify enhanced pun-
ishment on utilitarian grounds, these same traits might make the
imposition of punishment problematic on retributivist grounds. These
challenges to evidence-based sentencing will be described in more detail
in Part IV.

IV. CHALLENGES TO THE USE OF EMPIRICAL VARIABLES
IN EVIDENCE-BASED SENTENCING

Courts hoping to draw upon Gendreau's meta-analysis (and the vast
body of criminological research upon which it is founded) may face three
distinct kinds of challenges: logistical (since, to be effective, evidence-
based sentencing requires data that are both accurate and relevant), legal
(since certain characteristics, while arguably germane to sentencing, may
be off limits), and philosophical (since imposing punishments by using
group statistics may seem unjust, and since factors that might exculpate
the defendant under a retributivist calculus can operate as risk factors
within a utilitarian framework). Each of these challenges will be dis-
cussed, in turn, infra.

A. LOGISTICAL CHALLENGES

Evidence-based sentencing is fundamentally empirical. Instead of sen-
tencing by clinical judgment and intuition, or with sentencing guidelines
(that may or may not be founded upon data), evidence-based sentencing

324. MINORITY REPORT (DreamWorks 2002).
Risk in Sentencing uses empirical data to impose criminal sentences. But while some information related to Gendreau’s seventeen variables would be relatively easy for a court to obtain and would prove to be relatively reliable (e.g., the defendant’s age at the time of sentencing, gleaned from official records), obtaining other reliable data relevant to sentencing may prove problematic.

How, for example, should a court ascertain a defendant’s association with criminal peers (the variable that Gendreau’s meta-analysis identified as most predictive of adult recidivism)? Several approaches are possible. First, the court can simply ask the defendant. But the defendant may not know. Criminality is not an observable personal characteristic like height or weight, and it is entirely possible that many of the defendant’s friends have committed felonies without his knowledge. And even if the defendant somehow does know exactly how many of his friends are criminal peers, he is unlikely to reveal this information (unless the number is zero). Because the number of criminal peers is positively associated with risk (and because greater numbers of criminal peers thereby legitimate more invasive punishments), it is simply not in the defendant’s interest to provide this information to the court. It makes far more sense for the defendant to remain silent, avoiding the risk of self-incrimination. The burden to ascertain the number of criminal peers, then, will fall upon the court. The court might rely upon official documents such as the defendant’s arrest record (identifying “known associates”), but reliance upon these documents is problematic, possibly telling the court more about the operations of the criminal justice system than about the number of criminal peers a defendant actually knows. A first-time offender, having no police record, will have no listed “known associates,” even if he has hundreds—thousands—of criminal peers. Similarly, an offender whose criminal peers have avoided detection will have no listed “known associates,” even though these individuals exert the same criminogenic influence as those with extensive criminal records. Inadvertent recording errors, intentionally introduced bias, and the unconscious skewing of subjective facts by actors in the justice system further complicate the problem.

325. See James S. Wallerstein & Clement J. Wyle, Our Law-Abiding Law-Breakers, 25 Probation 107 (1947) (noting that most randomly-selected New Yorkers reported having committed at least one felony offense).

326. Of course, in sentencing a high-risk defendant, a judge may use this information to impose sentencing conditions (e.g., requiring substance-abuse programs to be completed or increasing the number of face-to-face meetings with a probation officer) instead of increasing the term of imprisonment. Too much should not be made of this distinction, however. While rehabilitation programs and enhanced supervision may be in the defendant’s ultimate interest, they too—just like an increased term of imprisonment—are an imposition upon the defendant’s liberty.


Official documentation is only as good as the information recorded within it, and because the path between an offense and an official record is mediated by numerous discretionary decision points, some offenders with many criminal peers will not seem to know any criminal associates, while others with few or none will appear to be surrounded by offenders. A court, recognizing the limitations inherent in official documents, might choose to gather its own, independent information. Conceivably, a court could direct a probation officer to gather objective information about a given defendant’s criminal peers. Yet even this solution is not as straightforward as it seems, since the defendant, after being found guilty, will probably modify his behavior before sentencing. The professional drug trafficker will avoid any contact with illegal substances; the racketeer will leave crime business to others in his syndicate. Defendants will adapt to changing circumstances. Obtaining an accurate count of criminal peers at this late stage in the criminal proceedings is doomed. Thus, measuring even a straightforward variable like the number of criminal peers may prove problematic for evidence-based courts.

It is not only defendants between arrest and sentencing who will change their behavior. Other actors in the criminal justice system will adapt their behavior to evidence-based sentencing, too, with consequences that can be difficult to anticipate. Offenders do not operate in a vacuum, but commit crimes in light of expected consequences. The actions of police officers, prosecutors, and judges, then, shape behaviors. For example, if risk assessment instruments suggest that offenders with certain traits are more likely to offend, law enforcement officers might reasonably decide to focus their limited resources on suspects with those traits. This use of heuristics is the logic of profiling. Focusing resources on individuals with high-risk traits will increase the proportion of arrests made among offenders with those traits (vis-à-vis offenders without those traits), and will increase the proportion of offenders with high-risk traits in prison. This may create self-fulfilling prophesies: “Criminal profiling, when it works, is a self-confirming prophesy. It aggravates over time the perception of a correlation between the group trait and crime.” Of course, if the use of risk assessment instruments allows law


enforcement agents to successfully catch and incapacitate more offenders, society may be willing to tolerate the reification of a stereotype. But actuarial methods "may actually encourage, rather than deter, the overall commission of the targeted crime." If the criminal behavior of those with high-risk traits is relatively inelastic, they will continue to offend even in the face of heightened law enforcement surveillance and will fill up the prisons; those without high-risk traits, however, observing that law enforcement resources are directed at those with high-risk traits, may choose to offend because police resources are directed elsewhere and the relative probability of successfully committing the crime is high. Under such circumstances, the net frequency of a given crime may actually increase.

Actuarial sentencing faces other logistical challenges. Implementation of an evidence-based system may prove incredibly difficult for jurisdictions that have previously captured only limited data. If, for example, no information were gathered about the criminal peers of previously-sentenced defendants, it will not be possible to evaluate the efficacy of various sentencing options in cases of defendants who had like numbers of criminal peers (i.e., for defendants who had the same number of criminal peers, did non-custodial punishments work better than brief or lengthy periods of incarceration?). The evidence-based judge can still impose a sentence based on extant criminological research, but direct comparisons of defendants is possible only when comparable data exists in past cases. Shifting to an evidence-based system of sentencing from a guidelines regime or a system of mandatory minimum penalties would be difficult, as well. This could, for example, prove problematic in the federal sentencing system:

[J]udges would not be able to draw directly from the last twenty years of federal sentencing data because that data would reflect the homogenizing influence of the mandatory Guidelines regime. Similarly, mandatory minimum sentences would frustrate any effort to identify optimal sentences that lay below the statutory floor. While it might be possible to use pre-Guidelines data, twenty years of crime legislation has changed the statutory landscape enormously, and the availability of parole prior to 1984 would mask the actual sentences

333. Id. at 145.
334. See id. at 111–71.
335. See generally ROGER HOOD & RICHARD SPARKS, KEY ISSUES IN CRIMINOLOGY (1970).
336. Id. at 186.
The logistical challenges associated with actuarial sentencing are serious. Even seemingly straightforward facts (like number of criminal peers) may prove difficult for courts to reliably measure. But logistical challenges will not be the only obstacles that courts face as they use risk assessment tools to engage in evidence-based sentencing: they will also face a variety of legal challenges. These are described in Part IV.B.

B. LEGAL CHALLENGES

Today, a sentencing judge can draw upon a wealth of criminological studies to appreciate the variables associated with adult recidivism; can choose from among a variety of commercially available risk assessment instruments; and using a sentencing information system, can visually observe which matched offenders have successfully avoided reoffending. In the hands of a thoughtful judge, these are powerful tools. Judges employing these tools, however, will likely face a number of legal challenges.

While some of the variables assessed by risk assessment instruments are uncontroversial in traditional sentencing colloquies (e.g., adult criminal history), a number of other variables related to risk are constitutionally suspect. Stripping people of fundamental rights or interests (such as liberty) on the basis of a suspect classification (such as race or national origin) is viewed with grave suspicion by the courts, and instead of deferring to the legislature as long as there is a rational basis to the statute or rule, such practices are scrutinized with strict scrutiny. Similarly, deprivations imposed on the basis of gender are evaluated using intermediate review, which, although not as onerous as strict scrutiny, requires substantially more justification than the rational basis test.

Most U.S. jurisdictions explicitly prohibit judges from basing their sen-

337. Oleson, supra note 15, at 753.
338. See generally supra Part III.B.
340. See supra notes 93–99 (describing scatterplot-style graphic user interface) and accompanying text.
341. See Almendarez-Torres v. United States, 523 U.S. 224, 230 (1998) (noting that the “prior commission of a serious crime . . . is as typical a sentencing factor as one might imagine”).
342. The rational basis test is permissive. As long as legislation serves a legitimate public purpose, courts employing the rational basis test will ask only “whether the classifications drawn in a statute are reasonable in light of its purpose.” McLaughlin v. Florida, 379 U.S. 184, 191 (1964).
343. To survive strict scrutiny analysis, a policy must represent a compelling government interest, must be narrowly tailored to achieve that compelling interest, and must use the least restrictive means for achieving that interest. See, e.g., Adarand Constructors v. Peña, 515 U.S. 200 (1995); Shapiro v. Thompson, 394 U.S. 618 (1969) (both tracing the development of the strict scrutiny standard).
344. See, e.g., Miss. Univ. for Women v. Hogan, 458 U.S. 718 (1982); Craig v. Boren, 429 U.S. 190 (1976) (both applying intermediate scrutiny to gender classifications). Intermediate scrutiny has become a commonplace standard in contemporary jurisprudence, prompting one scholar to describe it as “the test that ate everything.” Ashutosh Bhagwat, The
tencing decisions on considerations of race or gender, although interestingly, in Canada, judges are affirmatively directed to consider defendants' aboriginal status when imposing criminal sentences. Still, even if U.S. judges do not consider race or gender explicitly, "[v]irtually every sentencing system individualizes sentences based on predictions of future dangerousness." Given the relatively robust associations between risk, race, and gender, it may be difficult for judges to evaluate risk without indirectly considering race and gender through criminal history or other proxies. That being the case, is it legally permissible for courts to use risk assessment instruments in making sentencing decisions?

In 2010, in Malenchik v. Indiana, the Indiana Supreme Court considered the question of whether a trial court was permitted to consider risk assessment scores from the LSI-R and the Substance Abuse Subtle Screening Inventory (SASSI) when imposing a sentence. Anthony Malenchik, who pled guilty to receiving stolen property and admitted to being a habitual offender under Indiana law, challenged his sentence on five bases, arguing that: (1) the trial court's use of numeric LSI-R and SASSI scores was impermissible; (2) the scientific reliability of these instruments had not been demonstrated, and their use, therefore, contravened state rules of evidence; (3) the risk assessment instruments, measuring variables such as family disharmony, economic status, and social circumstances, were discriminatory; (4) the use of test results at the sentencing hearing impinged upon the right to counsel; and (5) the use of these risk assessment instruments did not comport with Indiana's penal code (which is founded upon a principle of reformation, not vindictive justice). A unanimous Indiana Supreme Court, however, rejected each of his claims.

Two important facts supported Malenchik's first claim that the use of the LSI-R score should not be permitted in sentencing. First, the LSI-R manual itself is explicit in stating that the LSI-R was not designed to identify appropriate criminal sentences. "This instrument is not a comprehensive survey of mitigating and aggravating factors relevant to criminal

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346. Canada's Criminal Code § 718.2(e) calls for explicit consideration of ethnicity at sentencing. Canada Criminal Code, R.S.C., § 718 (2011) ("[A]ll available sanctions other than imprisonment that are reasonable in the circumstances should be considered for all offenders, with particular attention to the circumstances of aboriginal offenders") (emphasis added). In R. v. Gladue, [1999] 1 S.C.R. 688, the Supreme Court of Canada held that § 718.2(e) applies to aboriginal peoples living off the reserve, as well as those living on it and in a traditional manner. The court reasoned that aboriginal persons have a long-standing disadvantage in Canadian society, and these effects are felt for generations.
348. See Harcourt, supra note 214.
349. 928 N.E.2d 564 (Ind. 2010).
350. Id. at 568.
351. Id. at 567–68.
352. Id. at 575.
353. Id. at 572.
sanctioning and was never designed to assist in establishing the just penalty.\textsuperscript{354} Second, state precedent clearly indicated that sentencing with the LSI-R was impermissible.\textsuperscript{355} Specifically, the Indiana Court of Appeals in \textit{Rhodes v. State} had reasoned that the “use of a standardized scoring model, such as the LSI-R, undercuts the trial court’s responsibility to craft an appropriate, individualized sentence.”\textsuperscript{356} But the Indiana Supreme Court in \textit{Malenchik} disagreed with \textit{Rhodes}. While the \textit{Malenchik} court was clear in holding that these risk assessment instruments were neither intended nor recommended to supplant the judicial role in ascertaining the appropriate length of sentence,\textsuperscript{357} the court was also unequivocal in stating that a trial court’s consideration of risk assessment instruments was permissible (if not desirable):

\begin{quote}
[T]here is a growing body of impressive research supporting the widespread use and efficacy of evidence-based offender assessment tools. The results of such testing can enhance a trial judge’s individualized evaluation of the sentencing evidence and selection of the program of penal consequences most appropriate for the reformation of a particular offender. . . . We defer to the sound discernment and discretion of trial judges to give the tools proper consideration and appropriate weight. We disapprove of the resistance to LSI-R test results expressed by the Court of Appeals in \textit{Rhodes}.\textsuperscript{358}
\end{quote}

The court invoked these same themes to reject Malenchik’s second claim. While the court might have simply stated that the Indiana Rules of Evidence do not apply in trial court sentencing proceedings,\textsuperscript{359} the court instead elected to emphasize the depth and scope of published evaluation research on the LSI-R.\textsuperscript{360} It wrote, “Given the extensive supporting research and on-going evaluation . . . , we believe that assessment tools such as the LSI-R and the SASSI are sufficiently reliable to warrant consideration . . . [by trial courts] for purposes of sentencing.”\textsuperscript{361} Sentencing judges in Indiana, as elsewhere, enjoy broad discretion as to the facts they may consider at sentencing,\textsuperscript{362} and the Indiana Supreme Court certainly was not required to justify the reliability of the LSI-R and the SASSI. That it chose to do so may indicate something about the judiciary’s estimation of actuarial methods.

The Indiana Supreme Court also rejected Malenchik’s third claim—that use of these risk assessment instruments, measuring variables such as

\begin{flushright}
\textsuperscript{354} \textit{Id.} (quoting LSI-R Manual at 3).
\textsuperscript{356} \textit{Id.}
\textsuperscript{357} \textit{Id.}
\textsuperscript{358} \textit{Id.}
\textsuperscript{359} \textit{See id.} (“The Indiana Rules of Evidence, except with respect to privileges, do not apply in trial court sentencing proceedings.”) (citations omitted).
\textsuperscript{360} \textit{See id.} at 574–75 (summarizing evaluation research).
\textsuperscript{361} \textit{Id.} at 574.
\textsuperscript{362} \textit{See, e.g.}, United States v. Tucker, 404 U.S. 443, 446 (1972) (noting that sentencing judges “may appropriately conduct an inquiry broad in scope, largely unlimited either as to the kind of information he may consider, or the source from which it may come”).
\end{flushright}
family disharmony, economic status, and social circumstances, was dis-

363. The court noted that information of this kind is "required by statute to be presented . . . in every presentence investigation re-

364. Here, too, the court could have left the matter at that, but—once again—it emphasized the empirical foundations of the risk instru-

ments, enthusiastically writing, "[S]upporting research convincingly shows that offender risk assessment instruments, which are substantially

365. based on such personal and sociological data, are effective in predicting the risk of recidivism and the amenability to rehabilitative treatment."  

The Indiana Supreme Court also rejected Malenchik’s fourth claim that because defense counsel do not have access to risk assessment scoring

366. sheets prior to sentencing hearings, the use of the assessment impinged upon the right to counsel. The court noted that defense counsel are

367. provided with a copy of the pre-sentence investigation report, and that this documentation adequately provides defense counsel with the requi-

368. site information to challenge sentencing provisions based on the risk assess-

369. ment or to use the assessment scores to argue for a suspended sentence or other favorable sentencing conditions. Once again, the court went out of its way to justify its reasoning by emphasizing the reliabil-

370. ity of the LSI-R and the SASSI. The court concluded, "[W]e find that the LSI-R and SASSI assessment tools and other similar instruments em-

371. ployed by probation departments have been sufficiently scrutinized to satisfy the reliability requirement for consideration by trial courts in sen-

372. tencing proceedings."  

Finally, the Indiana Supreme Court rejected Malenchik’s claim that use of risk assessment instruments is inconsistent with Article 1, Section 18 of

373. the Indiana Constitution, which establishes a penal system founded upon the principle of reformation. The court wrote, "We find the opposite. 

374. Such instruments endeavor to provide usable information based on ex-

375. tensive penal and sociological research to assist the trial judge in crafting individualized sentencing schemes with a maximum potential for reformation."  

363. Malenchik, 928 N.E.2d at 574-75.  
364. Id. at 574.  
365. Id.  
366. Id. at 575.  
367. Id.  
368. Id.  
369. Id.  
370. Id. Kelly Hannah-Moffat notes that many commentators see evidence-based sen-

tencing as a means to effectively rehabilitate:

371. [T]he use of risk instruments to seemingly customize sentences through the provision of targeted interventions and clear strategies of risk management is persuasive. Some evidence suggests that judges were more likely to release to the community when the risk assessment included information on risk management than when it only provided a prediction of risk level. Risk-need assessment is being popularized as a reasonable way of restricting custodial populations, reinvigorating rehabilitation, and enhancing public safety through "anticipated" reductions of "recidivism."
It is difficult to read *Malenchik v. Indiana* as anything but an endorsement of actuarial sentencing. In arriving at its holding, the Indiana Supreme Court relied upon the amicus brief of the Indiana Judicial Center, which in turn drew from a body of scholarship related to LSI-R evaluation and evidence-based practices. While the court did not suggest that the LSI-R should determine the length of a defendant's sentence, it saw no impediment to providing risk assessment scores to judges for use in determining how sentences should be served.

Perhaps the *Malenchik* court would have found in favor of the defendant if the trial judge had used only the risk scores (and not also the contents of the pre-sentence investigation report) in crafting the sentence. Perhaps the *Malenchik* court would have found in favor of the defendant if the trial judge had determined the length of sentence (and not just the conditions of sentencing) by using the LSI-R and the SASSI. Perhaps. Future litigation will undoubtedly address some of these questions. But the *Malenchik* opinion is an instructive example of the contemporary judiciary's desire for tools that promise greater efficacy in sentencing. While defendants' legal rights are essential considerations for jurists, so too is evidence of validity and reliability in risk assessment instruments.

In Part IV.C, below, I will consider four of the constitutional challenges that may be leveled at evidence-based sentencing practices. Most courts would not uphold defendants' challenges to evidence-based sentencing based on free speech, double jeopardy, or trial by jury rights, but some courts would be sympathetic to equal protection claims. Although courts frequently dismiss constitutional challenges in the sentencing context, a number of courts have struck down sentences that were based upon suspect considerations such as race, gender, or age.

However, in Part IV.D, infra, I argue that if used in concert with other, unprotected variables, even suspect classifications such as race and gender could survive intermediate—or even strict—scrutiny analysis. Although it is sometimes said that strict scrutiny is "'strict' in theory and

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371. *Malenchik*, 928 N.E.2d at 569 ("The amicus brief of the Indiana Judicial Center informs the Court of the growing acceptance and use of evidence-based practices in seeking to reduce offender recidivism and to improve sentencing outcomes.").

372. *Id.* at 573 (noting that risk assessment instruments are neither intended nor recommended to supplant the judicial function of determining the length of an appropriate sentence).

373. See, e.g., United States v. Kaba, 480 F.3d 152, 159 (2d Cir. 2007); United States v. Leung, 40 F.3d 577, 586–87 (2d Cir. 1994) (vacating sentence and assigning sentencing to new judge for consideration of race or gender).
fatal in fact,\textsuperscript{374} empirical research suggests that the lethality of strict scrutiny analysis is overstated.\textsuperscript{375}

In \textit{Korematsu v. United States},\textsuperscript{376} the Supreme Court upheld even the government’s program of detaining 110,000 Japanese-Americans in internment camps.\textsuperscript{377} In his dissent, Justice Murphy condemned the internment program for “fall[ing] into the ugly abyss of racism.”\textsuperscript{378} Similarly, Justice Jackson warned that “once a judicial opinion rationalizes such an order to show that it conforms to the Constitution, . . . the Court for all time has validated the principle of racial discrimination in criminal procedure.”\textsuperscript{379} But in \textit{Korematsu}, six of the nine Justices of the Supreme Court were willing to detain American citizens in “relocation centers”—Justice Black resisted calling them “concentration camps”—and to strip civil rights from a group of citizens because of their race. While it is a controversial and widely disliked opinion,\textsuperscript{380} \textit{Korematsu} has never been overturned and remains good law.

Given the guarantees of the Equal Protection Clause,\textsuperscript{381} it is inconceivable that a court would uphold a sentence imposed purely on the basis of race or gender (e.g., “Because you are a black male, you are sentenced to the maximum penalty permitted by law”), but it is possible to imagine courts upholding the use of risk assessment instruments that assess suspect classifications as well as other, traditional sentencing factors (e.g., “Because your risk assessment scores indicate that you have multiple criminogenic risk factors, all contributing to a great risk of recidivism, you are sentenced to the maximum penalty permitted by law”). In this way, included explicitly or indirectly as part of risk assessments, suspect classifications might operate as “plus factors,” allowing judges to assess risk with greater precision to advance the compelling state interest of public safety. Such an approach may survive constitutional scrutiny. After all, in \textit{Grutter v. Bollinger},\textsuperscript{382} the Supreme Court upheld the affirmative action plan at the University of Michigan’s law school after concluding that race was a plus factor that advanced the compelling state interest in a diverse student body.\textsuperscript{383}

\textsuperscript{376} 323 U.S. 214 (1944).
\textsuperscript{377} Id. at 222–24. See generally Maisie Conrat & Richard Conrat, \textit{Executive Order 9066: The Internment of 110,000 Japanese Americans} (1972).
\textsuperscript{378} \textit{Korematsu}, 323 U.S. at 233 (Murphy, J., dissenting).
\textsuperscript{379} Id. at 246.
\textsuperscript{380} Bernard Schwartz has named it as number six among the ten worst decisions of the Supreme Court. \textit{Bernard Schwartz, A Book of Legal Lists: The Best and Worst in American Law with 100 Court and Judge Trivia Questions} 69 (1997).
\textsuperscript{381} U.S. Const. amend. XIV, § 1.
\textsuperscript{382} 539 U.S. 306 (2003).
\textsuperscript{383} Id. at 343–44.
C. CONSTITUTIONAL RIGHTS

It is not obvious to what extent constitutional rights apply to sentencing proceedings. In Williams v. New York,\(^{384}\) the Supreme Court held that trial judges had nearly unlimited judicial discretion about the facts that may be considered at sentencing and about the weight they should be afforded.\(^{385}\) Distinguishing sentencing from adjudication of guilt, Justice Black wrote on behalf of the Court:

Rules of evidence have been fashioned for criminal trials which narrowly confine the trial contest to evidence that is strictly relevant to the particular offense charged. These rules rest in part on a necessity to prevent a time consuming and confusing trial of collateral issues. They were also designed to prevent tribunals concerned solely with the issue of guilt of a particular offense from being influenced to convict for that offense by evidence that the defendant had habitually engaged in other misconduct. A sentencing judge, however, is not confined to the narrow issue of guilt. His task within fixed statutory or constitutional limits is to determine the type and extent of punishment after the issue of guilt has been determined. Highly relevant—if not essential—to his selection of an appropriate sentence is the possession of the fullest information possible concerning the defendant's life and characteristics.\(^{386}\)

This type of wide-ranging inquiry, looking far beyond the elements of the charged offense, is essential to the kind of real offense sentencing operating in the federal courts.\(^{387}\) Of course, Williams has been superseded by Federal Rule of Criminal Procedure 32(e),\(^{388}\) but the Supreme Court still cites its principles favorably,\(^{389}\) and some lower courts continue to rely upon it as if it were still good law.\(^{390}\) Even courts that do not necessarily cleave to Williams regularly reject constitutional challenges to sentencing proceedings by (uncritically) citing previous practice,\(^{391}\) stressing the need for comprehensive information about the offender,\(^{392}\)

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385. Id. at 250–52.
386. Id. at 246–47.
389. See LAFAVE ET AL., supra note 387, at 1216.
392. See United States v. Watts, 519 U.S. 148, 151 (1997) (citing “the longstanding principle that sentencing courts have broad discretion to consider various kinds of information”); United States v. Tucker, 404 U.S. 443, 446 (1972) (noting that sentencing judges “may appropriately conduct an inquiry broad in scope, largely unlimited either as to the
or noting the impracticality of testing every fact at issue in sentencing.\footnote{393} Indeed, the legal system recognizes, explicitly, the inability to incorporate a full complement of evidentiary rules during sentencing proceedings.\footnote{394}

Still, some constitutional rights are recognized at sentencing.\footnote{395} There is, for example, a procedural right to notice,\footnote{396} a right to effective counsel,\footnote{397} and a right against self-incrimination.\footnote{398} There are some substantive rights as well. Courts have struck down sentences based upon materially false facts,\footnote{399} and have invalidated higher sentences that were imposed upon defendants for successfully having appealed their original sentences.\footnote{400} Courts also have struck down sentences that were based upon impermissible classifications such as race,\footnote{401} national origin,\footnote{402} and gender.\footnote{403} In \textit{McKleskey v. Kemp},\footnote{404} the Supreme Court made it clear that capital juries were free to "consider any factor relevant to the defendant's background, character, and the offense,"\footnote{405} but that "purposeful discrimination" in sentencing, based upon the race of either the victim or defendant, would constitute a violation of the Equal Protection Clause.\footnote{406} While it is often said that "death is different,"\footnote{407} and while "[s]ome procedures that are constitutionally required for capital cases would not be

kind of information he may consider, or the source from which it may come")}; \textit{Williams v. Oklahoma}, 358 U.S. 576, 585 (1959) ("In discharging his duty of imposing a proper sentence, the sentencing judge is authorized, if not required, to consider all of the mitigating and aggravating circumstances involved in the crime."); \textit{Williams v. New York}, 337 U.S. 241, 247 (1949) ("Highly relevant—if not essential—to [the judge's] selection of an appropriate sentence is the possession of the fullest information possible concerning the defendant's life and characteristics.").

393. \textit{See Williams}, 337 U.S. at 250 ("[T]he modern probation report draws on information concerning every aspect of a defendant's life. The type and extent of this information make totally impractical if not impossible open court testimony with cross-examination.").

394. \textit{See Fed. R. Evid.} 1101(d); \textit{see also} Malenchik v. Indiana, 928 N.E.2d 564, 573 (Ind. 2010) (describing same inapplicability in state sentencings).

395. \textit{See} Alan C. Michaels, \textit{Trial Rights at Sentencing}, 81 N.C. L. REV. 1771, 1773–74 (2003) (suggesting that since \textit{Williams v. New York} was decided, more rights at sentencing have been recognized "than many have supposed").


401. \textit{See} United States v. Kaba, 480 F.3d 152, 156 (2d Cir. 2007) ("A defendant's race or nationality may play no adverse role in the administration of justice, including at sentencing."); United States v. Leung, 40 F.3d 577, 586 (2d Cir. 1994) ("even the appearance that the sentence reflects a defendant's race or nationality will ordinarily require a remand for resentencing").

402. \textit{See, e.g.}, United States v. Borrero-Isaza, 887 F.2d 1349, 1356 (9th Cir. 1989) (vacating sentence based in part upon the defendant's national origin); United States v. Gomez, 797 F.2d 417, 419 (7th Cir. 1986) (noting that it would be unconstitutional to punish a defendant more severely based on nationality).


405. \textit{Id.} at 295 n.14 (emphasis in original).

406. \textit{Id.} at 292.

required in noncapital cases,"\textsuperscript{408} the prohibition against sentencing on the basis of race has been enforced by non-capital courts as well.\textsuperscript{409}

Still, as a general matter (except for these few procedural protections and these few suspect classifications), courts have been loath to uphold constitutional challenges in sentencing. In an insightful article in the \textit{California Law Review},\textsuperscript{410} Carissa Byrne Hessick and F. Andrew Hessick recently observed, "Instead of engaging in ordinary constitutional analysis when defendants challenge [sentencing] factors, courts have swept constitutional concerns under the proverbial rug based on the ungrounded conclusion that the sentencing process is somehow different and thus shielded from constitutional review."\textsuperscript{411} Constitutional challenges are upheld only when sentences are based upon clearly impermissible classifications or when clearly established procedural rights are breached.

Yes, if a judge imposed a lengthy sentence on an African-American defendant, stating that the specific sentence had been selected on the basis of the defendant's race, the sentence would be remanded for resentencing because of the risk (or at least the appearance) of invidious discrimination.\textsuperscript{412} Indeed, an entirely new judge might be assigned for resentencing.\textsuperscript{413} But absent a sentence starkly imposed on the basis of a constitutionally impermissible factor (e.g., race, national origin, or gender),\textsuperscript{414} or in violation of an established procedural requirement,\textsuperscript{415} a defendant's constitutional challenge to his or her sentence is unlikely to succeed.

What about evidence-based sentences that rely upon assessments of risk? In \textit{Malenchik v. Indiana},\textsuperscript{416} described above,\textsuperscript{417} the Indiana Supreme Court upheld the trial court's use of LSI-R and SASSI scores.\textsuperscript{418} Indeed, the court went further, stating that sentencing judges \textit{should} use this information in their sentencing deliberations.\textsuperscript{419} But what if the risk


\textsuperscript{409} See, e.g., Jackson v. Maryland, 772 A.2d 273, 279 (Md. 2001) ("The constitutional guarantee of due process of law forbids a court from imposing a sentence based in any part on inappropriate considerations, including improper considerations relating to race.").

\textsuperscript{410} Hessick & Hessick, supra note 43.

\textsuperscript{411} Id. at 57.

\textsuperscript{412} See, e.g., United States v. Leung, 40 F.3d 577, 586 (2d Cir. 1994).

\textsuperscript{413} See id. at 587.

\textsuperscript{414} See \textit{LaFave et al.}, supra note 387, at 1219 ("[T]he race of the victim or defendant (and, presumably, the gender of the victim or defendant) cannot be the basis for setting a sentence . . . .")

\textsuperscript{415} See Hessick & Hessick, supra note 43, at 53-54 (describing procedural rights enforced by courts even at sentencing).

\textsuperscript{416} 928 N.E.2d 564 (Ind. 2010).

\textsuperscript{417} See supra notes 349-73 and accompanying text.

\textsuperscript{418} See \textit{Malenchik}, 928 N.E.2d at 575.

\textsuperscript{419} Id. at 574 ("Having been determined to be statistically valid, reliable, and effective in forecasting recidivism, the assessment tool scores may, and if possible should, be considered to supplement and enhance a judge's evaluation, weighing, and application of the other sentencing evidence in the formulation of an individualized sentencing program appropriate for each defendant.") (emphasis added).
instruments in *Malenchik* had included race and gender as explicit assessment criteria? After all, many risk instruments do use gender as a criterion, and race has been identified as a significant correlate of recidivism by Don Gottfredson, Paul Gendreau, and the Virginia Criminal Sentencing Commission. What if a court constructed a sentencing information system that displayed risk as a scatterplot? What if, at sentencing, that court used the sentencing information system to match defendants with other, like offenders in its database, using the seventeen variables identified as most predictive of adult recidivism in Gendreau’s meta-analysis?

Normally, the imposition of differential punishments based on racial classifications would suggest a prima facie violation of the Equal Protection Clause, and would fail under strict scrutiny analysis. Strict scrutiny is intended to be a difficult hurdle for the government to clear.

The Constitution abhors classifications based on race, not only because those classifications can harm favored races or are based on illegitimate motives, but also because every time the government places citizens on racial registers and makes race relevant to the provision of burdens or benefits, it demeans us all. Purchased at the price of immeasurable human suffering, the equal protection principle reflects our Nation’s understanding that such classifications ultimately have a destructive impact on the individual and our society.

In like manner, imposing disparate penalties based solely on gender normally would fail under intermediate review. But relating race and gender to risk would increase the likelihood that their use would survive a constitutional challenge on equal protection grounds. Considering race and gender, but in combination with other risk factors, would be even more likely to survive. The Supreme Court’s 2003 decision in *Grutter v. Bollinger*, a case involving race-based affirmative action in higher edu-

420. *See*, e.g., BARNOSKI & DRAKE, supra note 131, at 6; OSTROM ET AL., supra note 98, at 27 (identifying, respectively, Washington and Virginia risk instruments that include gender as a measured characteristic).

421. *See* Gottfredson, supra note 10, at 5.

422. *See* Gendreau et al., supra note 39.


424. *See supra* note 94 and accompanying text.


427. *See supra* note 343 and accompanying text (describing strict scrutiny analysis).

428. *See* e.g., Schleifer v. City of Charlottesville, 159 F.3d 843, 866 (4th Cir. 1998).


430. *See supra* note 344 and accompanying text (describing intermediate review).

cation,\textsuperscript{432} may indicate how the use of race and gender might also be viewed within the context of evidence-based sentencing.

D. \textit{Grutter v. Bollinger}: A Potential Solution?

\textit{Grutter}, of course, had nothing to do with sentencing. Rather, the question in \textit{Grutter} was “whether the use of race as a factor in student admissions by the University of Michigan Law School . . . was unlawful.”\textsuperscript{433} After Barbara Grutter, a white Michigan resident with a 3.8 grade point average (GPA) and a 161 Law School Admissions Test (LSAT) score, was rejected by the University of Michigan’s elite law school, she sued, alleging that the law school had discriminated against her on the basis of race, in violation of the Equal Protection Clause.\textsuperscript{434} The district court held that the law school’s consideration of race as a factor in admissions decisions was unconstitutional,\textsuperscript{435} reasoning that the law school’s stated objective of creating a racially diverse class was not a compelling government interest.\textsuperscript{436} Even if it was, the law school’s admissions policy was not sufficiently narrowly tailored to advance that interest.\textsuperscript{437} Sitting en banc, the court of appeals reversed, finding that racial diversity was a compelling interest, and that Michigan Law’s policy was narrowly tailored because it was “virtually identical” to the Harvard admissions program\textsuperscript{438} appended to Justice Powell’s controlling opinion in \textit{Regents of the University of California v. Bakke}.\textsuperscript{439} In a five-to-four decision,\textsuperscript{440} the U.S. Supreme Court affirmed, upholding the law school’s use of race in admission decisions.\textsuperscript{441}

The dissenting Justices in \textit{Grutter} claimed that the majority panned mimed strict scrutiny analysis but did not actually apply the standard.\textsuperscript{442} Justice O’Connor, however, writing for the majority, rejected
this characterization. She identified the strict scrutiny standard: "[A]ll racial classifications imposed by government . . . are constitutional only if they are narrowly tailored to further compelling government interests." She agreed with the dissenters that strict scrutiny is a serious matter, quoting Adarand Constructors, Inc. v. Peña: "[W]henever the government treats any person unequally because of his or her race, that person has suffered an injury that falls squarely within the language and spirit of the Constitution's guarantee of equal protection." But Justice O'Connor noted that race-based government action does not violate the constitutional guarantee of equal protection when it serves a compelling governmental interest and is narrowly tailored.

The Court determined that Michigan Law had a compelling interest in attaining a diverse student body. A diverse law school class fosters cross-racial understanding, deconstructs stereotypes, and better prepares its students to work as professionals in an increasingly diverse society. Although Justice O'Connor acknowledged that some of the Court's precedents imply that remedying past discrimination is the only permissible justification for governmental racial classification, she rejected that inference, writing that "we have never held that the only governmental use of race that can survive strict scrutiny is remedying past discrimination."

Having determined that Michigan Law enjoyed a compelling interest in attaining a diverse student body, the Court asked whether the law school's admissions scheme was narrowly tailored to achieve that end. Justice O'Connor noted that while a rigid quota system would be impermissible, universities may consider race or ethnicity as a plus factor as part of an admissions policy premised upon individualized consideration. Such a policy comports with Justice Powell's controlling opinion in Bakke. Because Michigan Law considered race among a constella-

\[\text{imprimatur on a practice that can only weaken the principle of equality embodied in the Declaration of Independence and the Equal Protection Clause"}.]\)

443. Id. at 334 (stating that "[c]ontrary to Justice Kennedy's assertions, we do not 'abandon strict scrutiny'").
444. Id. at 326.
445. Id. at 326–27; see also supra note 429 and accompanying text (characterizing racial classifications as inherently destructive).
447. Id. at 327.
448. Id. at 328.
449. Id. at 330.
450. See id. at 328 (noting that "unless classifications based on race are 'strictly reserved for remedial settings, they may in fact promote notions of racial inferiority and lead to a politics of racial hostility'") (quoting Richmond v. J. A. Croson Co., 488 U.S. 469, 493 (1989))).
451. Id.
452. See id. at 334. Characterizing the University of Michigan's point-based affirmative action policy for undergraduates as a quota led the Court to invalidate the policy in the companion case to Grutter, Gratz v. Bollinger, 539 U.S. 244 (2003).
453. Id.
454. Id. at 335; see also supra note 439 and accompanying text (describing Bakke).
tion of other (non-racial) diversity factors, it employed race in a "flexible, nonmechanical way." In the Court's estimation, this meant that the "admissions program bears the hallmarks of a narrowly tailored plan." The Court rejected the petitioner's argument that less restrictive, race-neutral, means could also achieve racial diversity. "Narrow tailoring does not require exhaustion of every conceivable race-neutral alternative. Nor does it require a university to choose between maintaining a reputation for excellence or fulfilling a commitment to provide educational opportunities to members of all racial groups." Alternatives such as a lottery or decreasing the emphasis on GPA and LSAT scores would force administrators to sacrifice diversity, academic excellence, or both.

The Court did hold that "race-conscious admissions policies must be limited in time... Enshrining a permanent justification for racial preferences would offend [the] fundamental equal protection principle." Noting that twenty-five years had passed since Bakke, and that the number of qualified minority applicants had increased, the Court suggested that after twenty-five more years, racial preferences will no longer be required to achieve a diverse student body. Summarizing the Court's holding in Grutter, Justice O'Connor wrote, "[T]he Equal Protection Clause does not prohibit the Law School's narrowly tailored use of race in admissions decisions to further a compelling interest in obtaining the educational benefits that flow from a diverse student body."

The Court's reasoning in Grutter should prove instructive for judges interested in the constitutionality of evidence-based sentencing. While contemporary risk assessment instruments do not explicitly measure race, race has been identified as a highly predictive correlate of recidivism, and other, measured variables may operate as proxies for race. It is also possible that a court would be interested in using race as an explicit variable within a sentencing information system to match defendants against like, previous offenders in an attempt to identify optimal sentence length and conditions. If challenged, as in Malenchik v. Indiana, evidence-based sentencing courts may wish to negotiate strict scrutiny analysis by adopting the logic of Grutter.

455. Grutter, 539 U.S. at 334.
456. Id.
457. Id. at 339.
458. Id. at 340.
459. Id. at 342.
460. See id. at 343.
461. Id.
462. See Ostrom et al., supra note 98, at 27–28; Gendreau et al., supra note 39; Gottfredson, supra note 10, at 9 (all reporting significant association between race and recidivism).
463. Harcourt, supra note 214.
464. See supra note 94 and accompanying text (describing a graphic interface for sentencing information system).
465. 928 N.E.2d 564 (Ind. 2010). For a discussion of Malenchik, see supra notes 312–328 and accompanying text.
Even evidence-based sentencing that uses race as an explicit factor to impose punishment may survive strict scrutiny. To survive constitutional challenge, evidence-based sentencing must satisfy the three prongs of the strict scrutiny test: (1) a compelling governmental interest, (2) narrowly tailored action, and (3) the unavailability of less restrictive means to satisfy the government’s interest.

The first prong asks whether protecting the public from crime is a compelling state interest. In some ways, preventing crime seems like the domestic equivalent of national security, which was upheld as a compelling governmental interest in Korematsu v. United States. But other objectives—even objectives that are lauded by the courts under other circumstances—have been deemed insufficient. Justice Thomas suggested that the threshold to establish a compelling governmental interest is very high: “Where the Court has accepted only national security, and rejected even the best interests of a child, as a justification for racial discrimination, I conclude that only those measures the State must take to provide a bulwark against anarchy, or to prevent violence, will constitute a ‘pressing public necessity.’”

Justice Thomas implied that most governmental interests—even perfectly legitimate governmental interests—will fail the first prong of the strict scrutiny test. But evidence-based sentencing is in luck: the prevention of crime has already been identified as a compelling governmental interest by the U.S. Supreme Court. In the 1984 case Schall v. Martin, Justice Rehnquist asserted the fact in bold terms, writing that “[t]he ‘legitimate and compelling state interest’ in protecting the community from crime cannot be doubted.”

The second prong asks whether evidence-based sentencing’s use of racial classifications is narrowly tailored. Here, Grutter may prove instructive. If a sentencing court were to draw upon research associating race and crime, and then impose a blunt distribution of punishment in which African-Americans always received the maximum penalty permitted by law, Asians always received the minimum penalty, and whites always received the midpoint penalty, this would presumably flunk strict

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470. Id. at 264; see also Terry v. Ohio, 392 U.S. 1, 22 (1968); De Veau v. Braisted, 363 U.S. 144, 155 (1960).
471. See Wright, supra note 220, at 146 (“INTERPOL statistics on homicide, rape, and serious assault consistently show that Orientals have the lowest involvement in serious crime, followed by Caucasians, and then blacks.”).
scrutiny. Quotas are not narrowly tailored. But using race in a flexible and non-mechanical manner may satisfy the narrow tailoring prong. If race were employed as a "plus factor" and included among other relevant variables in a statistical model, it would help the sentencing judge to better ascertain the most effective sentence for each individual defendant. Racial differences, after all, are statistically correlated with recidivism risk, and in the words of the Grutter Court, "the very purpose of strict scrutiny is to take . . . 'relevant differences into account.'"

The third prong, demonstrating that no less restrictive means will satisfy the compelling governmental interest, is relatively straightforward. Research has shown that excluding race from mathematical models of recidivism degrades the predictive power of the model significantly. Joan Petersilia and Susan Turner found that omitting race-correlated factors from a model to predict recidivism reduced the accuracy of the model by five to twelve percentage points. Race and its correlates can be excluded from evidence-based sentencing, but only at the cost of compromising the ability of the government to achieve its compelling interest (preventing crime). In terms of attaching temporal limits to the use of race in evidence-based sentencing, courts could choose to include racial variables in their models for as long as those variables remain significant predictors of recidivism, relinquishing their use if and when they cease to be significantly predictive. This approach is consistent with the race-neutral ideals articulated by the Court.

In summation, evidence-based sentencing, like the affirmative action program upheld by the Court in Grutter v. Bollinger, would probably survive strict scrutiny analysis. But evidence-based sentencing is different from affirmative action in at least one essential respect. In Grutter, the Court was permitting the use of race to offset the negative effects of past discrimination. That is not the objective of evidence-based sentencing. Instead of trying to redress this country's stark racial disparities in the criminal justice system, actuarial sentencing builds upon a statistical

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472. See Grutter, 539 U.S. at 334 ("To be narrowly tailored, a race-conscious admissions program cannot use a quota system—it cannot ‘insulate each category of applicants with certain desired qualifications from competition with all other applicants.").
473. See id. (upholding policy of individualized consideration).
474. See supra note 412 and accompanying text (indicating that race is correlated with recidivism rates).
475. Grutter, 539 U.S. at 334 (citing Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 228 (1995)).
476. See Petersilia & Turner, supra note 42, at 173.
477. See Grutter, 539 U.S. at 342–43 (noting that because racial classifications are so potentially dangerous to society, they should not be extended any longer than necessary).
478. Id.; cf. Richmond v. J. A. Croson Co., 488 U.S. 469, 493 (1989) (plurality opinion) (noting that if racial classifications are not used for remedial purposes, they may exacerbate racial tensions).
479. Racial disparity is endemic in the U.S. criminal justice system. See supra note 220 and accompanying text. Because it is such a serious issue, there is a massive literature—some of which is quite empirical, some quite abstract—on the subject. See, e.g., David C. Baldus et al., Equal Justice and the Death Penalty: A Legal and Empirical Analysis (1990); Cole, supra note 220; Randall Kennedy, Race, Crime, and the
association between variables (such as race) and crime to predict recidivism. These predictions may justify—at least in part—the imposition of disparate criminal sentences based on a number of variables correlated with risk, including race. Thus, evidence-based sentencing has the potential to reify, rather than ameliorate, extant racial disparities.

Ironically, if a state determined that it was a laudable goal to artificially reduce the number of minorities in its prisons—using actuarial sentencing to ensure that the proportion of incarcerated blacks corresponded to the proportion of blacks in the overall population—this probably would violate the Equal Protection Clause.

Of course, courts applying strict scrutiny analysis will not ask whether the ends of actuarial sentencing are laudable and desirable goals. It does not matter. “[T]he standard of review under the Equal Protection Clause is not dependent on the race of those burdened or benefited by a particular classification.” Courts subjecting evidence-based sentencing to strict scrutiny analysis will ask only whether the prevention of crime is a compelling government interest (it is). They will ask whether the racial classification is narrowly tailored (it will probably be deemed so). And they will ask whether a less restrictive means will achieve the compelling government interest (research suggests that it will not).

Once the constitutional door is open to race, all other sentencing factors can pass through: gender, age, marital status, education, class, and so forth. If a sentencing information system that includes race as an explicit variable can survive strict scrutiny, then a system that includes gender as an explicit variable would survive intermediate review (as this is a less onerous standard). And where race and gender are permitted as sentencing factors, other personal characteristics, ceteris paribus, will be permitted as well.

Certainly, if a sentencing information system that explicitly includes race as a variable can pass constitutional muster, then the use of risk assessment instruments that do not measure race, per se, but measure cor-

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480. See Harcourt, supra note 15, at 190 (“The use of actuarial methods tends to accentuate the prejudices and biases that are built into the penal code and into criminal law enforcement.”).

481. This would operate as a mechanical quota, and be more akin to the unconstitutional undergraduate admissions policy of Gratz v. Bollinger, 539 U.S. 244 (2003), than the permissible law school policy evaluated in Grutter.

482. Croson, 488 U.S. at 494 (plurality opinion).

483. See supra note 470 and accompanying text.

484. See supra note 473 and accompanying text.

485. See supra note 476 and accompanying text.

486. See supra note 344 and accompanying text (describing intermediate review).
related variables (e.g., criminal history),\textsuperscript{487} would be permissible. The likely constitutionality of evidence-based sentencing may come as a relief to sentencing judges who believe—probably correctly\textsuperscript{488}—that they can impose better sentences by employing actuarial techniques, and to judges who are frustrated by sentencing guidelines that must be calculated\textsuperscript{489} but cannot be followed.\textsuperscript{490} For these judges, evidence-based sentencing may serve as a bona fide paradigm shift—a new way forward.\textsuperscript{491} But the constitutionality of evidence-based sentencing does not solve the serious—and perhaps intractable—philosophical problems that lurk within the approach.

\section*{E. Philosophical Challenges}

Given that risk assessment has been used within the criminal justice system for at least eighty years,\textsuperscript{492} commentators have commented upon many of the philosophical conundrums associated with evidence-based sentencing.\textsuperscript{493} A full catalog lies beyond the scope of this article, but four particularly thorny issues bear mentioning: (1) the very nature of the assessed variables may make evidence-based sentencing unfair; (2) the prospective orientation of evidence-based sentencing troubles some commentators; (3) risk-correlated variables that warrant increased punishments on utilitarian grounds may suggest reduced punishments when considered from a retributivist perspective; and (4) those who advocate for evidence-based sentencing because it may reduce the penalties for a given population may or may not understand that other populations will be penalized. Each of these issues will be outlined below.

The seventeen variables associated with adult recidivism in Gendreau's meta-analysis\textsuperscript{494} may prove to be philosophically problematic when employed in evidence-based sentencing. Some of those seventeen variables (e.g., antisocial personality, criminal companions, substance abuse, and even employment) are bourgeois and paternalistic in nature. For example, while there may be a statistical relationship between the number of

\begin{footnotesize}
\footnote{487. See Harcourt, \textit{supra} note 214 (noting that criminal history may operate as a proxy for race).}
\footnote{488. See \textit{supra} notes 84--99 and accompanying text.}
\footnote{490. See \textit{Nelson v. United States}, 555 U.S. 350, 350 (2009) (holding that without further analysis, district courts may not consider a guidelines sentence to be presumptively reasonable).}
\footnote{491. See Oleson, \textit{supra} note 15, at 738 (analogizing the increasingly-elaborate federal sentencing guidelines to Ptolemaic models of the solar system and suggesting that a paradigm shift to a data-driven Copernican model is needed).}
\footnote{492. See Burgess, \textit{supra} note 114 (publishing pioneering risk assessment tool in 1928); see also \textit{Harcourt, supra} note 15, at 47--107 (tracing rise of risk-based actuarialism).}
\footnote{494. Gendreau et al., \textit{supra} note 59 (identifying seventeen variables statistically associated with adult recidivism).}
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criminal peers with whom a defendant associates and recidivism risk, it is nevertheless troubling to consider affirmatively punishing a defendant for merely associating with "the wrong sort of person." What of our rights of assembly? Similarly, while unemployment may indeed be associated with recidivism, the notion that we will criminally punish someone (or increase someone's punishment) for not holding down a job is repugnant. In a like manner, it is not difficult to believe that substance abuse is associated with recidivism, but the idea of enhancing a defendant's punishment simply because he is addicted to alcohol and/or drugs veers perilously close to the government action outlawed by the Supreme Court in *Robinson v. California*.

Even more troublesome is the prospect of punishing a defendant for an ascribed characteristic. A judge might reasonably be willing to increase a defendant's punishment because of something that he did or did not do (e.g., get arrested, go to college, get married, and so forth), but judges may rightly balk at increasing a punishment because of who someone is. Unfortunately, research suggests that for better or worse, in the real world, ascribed characteristics do play a role in the discretionary decisions made by actors in the criminal justice system, although this may offend our moral intuitions. "Many people believe it unjust to base punishment decisions on factors over which the offender has no control." People do not choose to be born male or female, or to criminal or non-criminal parents, or with high IQ scores or learning disabilities. These traits may be correlated with recidivism risk, but to impose disparate punishments based upon ascribed characteristics seems palpably unfair. Upon reflection, however, it becomes clear that this is but one example of a much larger philosophical problem that permeates the criminal justice

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495. *See supra* note 176 and accompanying text.

496. *See* U.S. CONST. amend. I ("Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.").

497. *See supra* note 251 and accompanying text.

498. *See* Elizabeth T. Lear, *Double Jeopardy, the Federal Sentencing Guidelines, and the Subsequent-Prosecution Dilemma*, 60 BROOK. L. REV. 725, 726 (1994) (noting that courts have "devised a convenient yet dangerous fiction in the form of the 'punishment-enhancement' distinction. According to this theory, a sentence enhancement does not constitute punishment").

499. *See supra* notes 271, 274 and accompanying text.

500. 370 U.S. 660, 666-67 (1962) (noting that drug addiction is an illness, not a crime, and holding that ninety days in jail for being ill violated the Eighth Amendment's prohibition against cruel and unusual punishment). *But see* Powell v. Texas, 392 U.S. 514, 532-33 (1968) (distinguishing punishable behavior [public intoxication] from non-punishable disease [alcoholism]).


system: moral luck. Every day, myriad externalities over which people exercise no control determine whether (and how much) they will be punished. The distracted driver who strikes and kills a pedestrian in a crosswalk will be charged with vehicular manslaughter; but without a pedestrian in the crosswalk, that same driver, engaging in the same conduct, will have committed no offense. Similarly, the pugilist who beats his victim into unconsciousness in a hospital parking lot will be convicted only of assault (his victim lives); but the pugilist who inflicts identical injuries on his victim, but does so in remote Alaska, will be convicted of second-degree murder, because his victim dies en route to the hospital. The ascribed characteristics used in evidence-based sentencing may be philosophically problematic, but the philosophical problem they represent is much more sweeping than evidence-based sentencing: moral luck shapes all phases of the criminal justice system.

A second philosophical challenge to evidence-based sentencing relates to punishing defendants not for what they have done, but for what other (statistically similar) offenders have done. Reminiscent of the concept of "pre-crime" punished in Minority Report, the forecasting of future criminality and the imposition of punishment based on risk of recidivism may offend some judges’ sense of justice. "It is a fundamental orthodoxy of our criminal justice system that the punishment should fit the crime and the individual, not the statistical history of the class of persons to which the defendant belongs." But the imposition of a particular punishment in order to reduce the risk of future crime is nothing new in the law: indeed, it is axiomatic to the principle of general deterrence. If anything, it is philosophically more suspect to severely punish one offender in an attempt to deter other potential criminals than it is to impose a punishment based upon penalties that were assigned to other, like offenders. After all, this is what common law judges do: they analogize the facts of the instant case to the facts of controlling precedent and then impose judgments faithful to the principle of stare decisis.

505. See supra note 324 and accompanying text.
506. See, e.g., Marcus, supra note 47.
508. See supra note 6 and accompanying text.
509. In the former case, judges employ the defendant as a scapegoat whose suffering serves a larger social objective; in the latter case, judges use historical information to impose sentences that conserve law enforcement resources, enhance the possibilities of rehabilitation, and maximize public safety.
A third philosophical challenge to evidence-based sentencing lies in the divergent paths mapped by forward-looking utilitarianism and backward-looking retribution. George Bernard Shaw, cognizant of the tension between rehabilitation and retribution, articulated an acerbic syllogism: "Now, if you are to punish a man retributively, you must injure him. If you are to reform him, you must improve him. And men are not improved by injuries." 511 Of course, this view is not limited to playwrights; some leading legal scholars also view risk and desert as fundamentally immiscible principles. 512 And it is easy to understand why: to the extent that immutable characteristics are predictive of recidivism (justifying punishment on utilitarian grounds), they may imply that defendants lack meaningful control over their criminal behavior (thereby making the imposition of punishment problematic on retributivist grounds). The more robust a variable is in predicting recidivism, the more meddlesome it becomes from a desert-based viewpoint. A characteristic that predicted recidivism with perfect accuracy would force jurists and criminologists to reassess their understandings of criminal responsibility, asking, "Is it the defendant who recidivates or is it the characteristic?" At the bottom of this philosophical well, of course, lies the perennial problem of free will: If man does not have free will, why does the law insist upon punishing him as if he does? 513 In The Limits of the Criminal Sanction, Herbert Packer provides a chillingly urbane answer, suggesting that the rationale may be efficacy: "Very simply, the law treats man's conduct as autonomous and willed, not because it is, but because it is desirable to proceed as if it were." 514

Evidence-based sentencing, relying upon the assumption that risk factors increase the likelihood of recidivism in a statistically predictable fashion, suggests that choice is not absolute. For the philosophically minded, this understanding, however, raises fundamental questions about free will and human nature that may very well lie beyond the ability of the sciences to answer. 515

A fourth philosophical challenge to evidence-based sentencing relates to an ethical dilemma: Should defense counsel embrace the use of actuarial sentencing, or should they reject it? Advocates who embrace evi-

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511. GEORGE BERNARD SHAW, 22 THE COLLECTED WORKS OF BERNARD SHAW 173, 184 (1932).
512. See Paul H. Robinson, Punishing Dangerousness: Cloaking Preventive Detention as Criminal Justice, 114 HARV. L. REV. 1429, 1438, 1441 (2001) ("Dangerousness and desert are distinct criteria that commonly diverge. . . . [T]hey inevitably distribute liability and punishment differently. To advance one, the system must sacrifice the other."); Christopher Slobogin, Model Penal Code Symposium: Introduction to the Symposium on the Model Penal Code's Sentencing Proposals, 61 FLA. L. REV. 665, 679–80 (2009) (noting that desert and crime control often "are at odds, not just because a dangerous person might not be blameworthy (or vice versa), but because characteristics that appear mitigating—youth, addiction, impaired functioning—are frequently risk factors").
514. PACKER, supra note 5, at 74–75.
515. See, e.g., William James, The Dilemma of Determinism, in THE WILL TO BELIEVE 149 (1949).
dence-based sentencing (a means) because they like the result (an end) in a given case, or for a given population, may not appreciate that other populations will be penalized. For example, a defense lawyer defending a middle-aged, middle-class, married, white woman on a first offense might be enthusiastic about the use of evidence-based sentencing, because her presumably-low risk score could justify a non-custodial sentence. This is precisely the kind of zealous advocacy that characterizes excellent defense work.516 But the lawyer should understand that his next client might be an eighteen-year-old African-American male with a lengthy criminal history. Risk cuts both ways; it may not always be possible to use risk when it serves the client's interests and to ignore it when it does not.

Of course, it is possible to use evidence-based sentencing to reduce—but not increase—penalties. This is similar to what Virginia did with its risk assessment instrument.517 Assuredly, the number of prison inmates could be reduced through the use of risk instruments,518 and the net amount of total punishment could be decreased. But the choice to make sentencing decisions by evaluating the correlates of recidivism risk implies that, at least in relative terms, there will be winners and losers. If, for example, everyone in an office gets a raise except for you, you have not lost money in terms of absolute value, but because everyone else now has more buying power, you have lost money in relative terms. Similarly, if risk profiles are used to reduce the terms of incarceration for women, whites, the middle-aged, and the college-educated, this will not, in itself, increase the sentences imposed upon young minority males without college degrees, but it will exacerbate the existing sentencing disparities. This is addition through subtraction. Sentencing disparities of this kind could precipitate legislative action similar to that which prompted passage of the Sentencing Reform Act of 1984.519

Applying similar reasoning, Carissa Byrne Hessick notes that opponents of mass incarceration must be mindful of the policy implications

516. See Charles W. Wolfram, Modern Legal Ethics 578 (1986) (noting "the American lawyer's professional model is that of zeal: a lawyer is expected to devote energy, intelligence, skill, and personal commitment to the single goal of furthering the client's interests"). Of course, the Model Rules of Professional Conduct no longer call for "zeal"—only "reasonable diligence." Model Rules of Prof'L Conduct R. 1.3 (2007). Nevertheless, zeal remains a virtue championed by many defense lawyers. See Monroe H. Freedman, In Praise of Overzealous Representation—Lying to Judges, Deceiving Third Parties, and Other Ethical Conduct, 34 Hofstra L. Rev. 771 (2005-2006) (arguing that zealous representation pervades all aspects of the lawyer's work, and may require the lawyer to violate other disciplinary rules).

517. See supra note 98 and accompanying text (noting that low risk defendants were assigned to non-custodial, alternative punishments).

518. This might be a sensible approach for California to adopt in response to the Supreme Court's decision in Brown v. Plata, 131 S. Ct. 1910, 1923 (2011) (upholding order of a three-judge panel for the State of California to reduce its prison population to 137.5% of design capacity, or by about 46,000 inmates).

when they use risk-based arguments to advocate for reduced penalties of a given population.\textsuperscript{520}

If both race-effects commentators and gender-effects commentators are looking to draw attention to the severity of modern sentencing policy by highlighting its effects on a particular disadvantaged group, then it is important that the arguments from each group of commentators do not support more severe sentencing for another disadvantaged group.\textsuperscript{521}

Classifications of risk create winners and losers, but they also shape our legal conceptions in a subtle and insidious fashion. They have spawned a “new penology”\textsuperscript{522} that—for better or worse—is also creating a new way of sentencing.\textsuperscript{523} Hyatt is optimistic: “The careful use of risk assessment is more than the future of sentencing. In a growing number of jurisdictions, it has become an exciting and integral part of current sentencing practices.”\textsuperscript{524} Harcourt is more wary:

The prediction of future dangerousness has begun to colonize our theories of punishment.

This is remarkable because it flips on its head the traditional relationship between social science and the legal norm. The prediction instruments were generated, created, driven by sociology and criminology. They came from the social sciences. They were exogenous to the legal system. They had no root, nor any relation to the jurisprudential theories of just punishment. They had no ties to our long history of Anglo-Saxon jurisprudence—to centuries of debate over the penal sanction, utilitarianism, or philosophical theories of retribution. And yet they fundamentally redirected our basic notion of how best and most fairly to administer the criminal law.\textsuperscript{525}

\section{V. CONCLUSION: HARD CHOICES ABOUT HARD TIME}

Harcourt is correct in stating that risk prediction has shaped our thinking about punishment,\textsuperscript{526} yet it remains unclear whether evidence-based sentencing is something to be feted or to be feared. Certainly, it will be an attractive prospect for state judges forced to “sentence smarter” because of limited resources.\textsuperscript{527} It will also be attractive to federal judges who are frustrated by sentencing guidelines that must be calculated,\textsuperscript{528}

\begin{flushright}
521. Id. at 140–41.
522. See Feeley \& Simon, supra note 52.
523. See supra note 35 and accompanying text.
524. Hyatt, supra note 85, at 267.
525. HARCOURT, supra note 15, at 188.
526. See id.
527. See Marcus, supra note 38.
\end{flushright}
yet cannot be followed.\textsuperscript{529} It is noteworthy that organizations of jurists and legal scholars are already legitimating the approach: evidence-based sentencing is supported by the PEW Center on the States,\textsuperscript{530} the National Institute of Corrections,\textsuperscript{531} and the National Center for State Courts,\textsuperscript{532} and it has been acknowledged by the American Law Institute.\textsuperscript{533}

Judges have good reason to adopt evidence-based sentencing. Research indicates that actuarial sentencing is superior to unstructured judgment,\textsuperscript{534} as is also true of decision making in other contexts. While modern risk prediction instruments are only moderately predictive of recidivism,\textsuperscript{535} they are empirically constructed and correspond to extant criminological research such as Gendreau's meta-analysis described in Part III.B of this Article.\textsuperscript{536} It has been suggested that not using risk assessment instruments may constitute negligence in sentencing.\textsuperscript{537}

Evidence-based sentencing will probably withstand constitutional challenges.\textsuperscript{538} Courts, as a general matter, are reluctant to enforce constitutional rights at sentencing,\textsuperscript{539} and the "pull of prediction"\textsuperscript{540} will further induce judges to uphold sentences imposed on the basis of risk. Given the Supreme Court's reasoning in \textit{Grutter v. Bollinger},\textsuperscript{541} even sentencing regimes that employ race as an explicit correlate of recidivism risk may survive strict scrutiny analysis.\textsuperscript{542}

Evidence-based sentencing, though, still faces a number of serious challenges. Some of these are logistical (What kind of data should judges use? Is the available data reliable? Will actuarial sentencing reduce crime levels, or will it increase them?), and some are philosophical (Can risk coexist with desert? Is it justice to punish not for crime, but for the presence of a risk factor? And does it matter if that risk factor is ascribed?).

Risk assessment has transformed penology,\textsuperscript{543} and is transforming the way that sentencing judges do business. Opening their eyes to the consequences of risk, judges are like the character of Neo in \textit{The Matrix}:\textsuperscript{544} instead of swallowing the blue pill and waking up in their beds, believing

\textsuperscript{529} See \textit{Nelson v. United States}, 555 U.S. 350, 350 (2009) (holding that without further analysis, district courts may not consider a guidelines sentence to be presumptively reasonable).
\textsuperscript{530} See \textit{supra} note 89 and accompanying text.
\textsuperscript{531} See \textit{supra} note 90 and accompanying text.
\textsuperscript{532} See \textit{supra} note 91 and accompanying text.
\textsuperscript{533} See \textit{supra} note 92 and accompanying text.
\textsuperscript{534} See \textit{Gottfredson & Gottfredson, supra} note 37.
\textsuperscript{535} See \textit{Christopher Slobozog, Proving the Unprovable} 107 (2007) (reporting AUC values between .7 and .8 for modern actuarial instruments).
\textsuperscript{536} See \textit{supra} note 39.
\textsuperscript{537} See Redding, \textit{supra} note 77, at 1.
\textsuperscript{538} See \textit{supra} Part IV.D.
\textsuperscript{539} See \textit{Hessick & Hessick, supra} note 43, at 92.
\textsuperscript{540} See \textit{supra} Part IV.D.
\textsuperscript{541} \textit{Harcourt}, \textit{supra} note 15.
\textsuperscript{542} \textit{Feeley & Simon, supra} note 52, at 452–59.
\textsuperscript{543} \textit{The Matrix} (Warner Bros. Pictures, 1999).
whatever they want to believe, those who have embraced a jurisprudence based on risk have decided to swallow the red pill.\textsuperscript{545} And, as in the film, the reality revealed to them is harsh. Indeed, the world of risk is littered with inequities and injustices. Why should defendants be punished more because they were victims of child abuse? How is it possible that people should be punished more because they were born with mental illness? Are their underlying hardships not punishment enough?\textsuperscript{546} Lawyers are weaned on lofty principles like “all men are created equal,”\textsuperscript{547} but in a world of risk and moral luck, this assertion looks like an empty platitude, a false promise, and a lie. A golden lie, perhaps, but a lie nevertheless.

Judges, recoiling from such a bleak vision, may wish they had opted for the blue pill.\textsuperscript{548} But there is no retreat. Harcourt writes, “What, then, should we do? Where do we go if we forsake the actuarial? Do we return to clinical judgment? No. Clinical judgment is merely the human, intuitive counterpart to the actuarial. It is simply the less rigorous version of categorization and prediction—the hunch rather than the regression.”\textsuperscript{549}

Having swallowed the red pill, it becomes clear that three options are available to judges considering evidence-based sentencing: (1) adoption of actuarial techniques, using whatever variables are most predictive, regardless of what they are; (2) adoption of actuarial techniques, eliminating from the model any variables that are objectionable on legal or philosophical grounds; or (3) rejection of actuarial techniques.

The first option is to embrace evidence-based sentencing and to use whatever predictive measures that science and the law will allow. Suspect variables (e.g., race, gender, age, marital status, education level, and class) can be employed in sentencing decisions, perhaps to make out decisions to determine length of sentence,\textsuperscript{550} and perhaps to impose conditions of confinement or supervision.\textsuperscript{551}

\textsuperscript{545} See generally \textit{Taking the Red Pill: Science, Philosophy and Religion in The Matrix} 14 (Glenn Yeffeth ed., 2003) (equating the ingestion of the red pill with the freeing of the mind).

\textsuperscript{546} See, e.g., \textit{Anthony Clare, Psychiatry in Dissent} 354 (2d ed. 1980) (quoting the maxim \textit{furiosus satis ipso furore punitur} [the mad man is sufficiently punished by his madness]).

\textsuperscript{547} \textit{The Declaration of Independence} para. 2 (U.S. 1776).

\textsuperscript{548} See \textit{B. F. Skinner, Walden Two} 240 (2005) (describing a conversation between Frazier, who asks “What would you do if you found yourself in possession of an effective science of behavior?” and Castle, who answers, “I think I would dump your science of behavior in the ocean.” When Frazier asks if he would “deny men all the help [he] could otherwise give them,” Castle says that by dumping the knowledge in the ocean, he would give them their freedom. Frazier warns that in so doing he would only hand control over to others).

\textsuperscript{549} \textit{Harcourt, supra} note 15, at 237-38.

\textsuperscript{550} See, e.g., \textit{Greenwood, supra} note 97 (describing principle of selective incapacitation).

\textsuperscript{551} See Slobogin, \textit{supra} note 502, at 302 (suggesting that in some jurisdictions “retributive considerations might be considered relevant only in setting the outer limit of the sentence, with its precise length in a given case dependent upon an evaluation of dangerousness and rehabilitative potential”).
Of course, providing judges with a sentencing information system that identifies optimal punishments for matched cases in a straightforward manner creates the possibility that judges will simply run the numbers and impose the penalty identified by the software. After all, even though sentencing judges were critical of mandatory federal guidelines, they adhered to them, and continue to do so post-Booker. Even if judges do look beyond the statistics and beyond the four corners of the law, risk predictions are likely to frame the judge's thinking and to influence the sentence that is eventually imposed. On the other hand, a judges' blind adherence to a reliable sentencing information system might not be entirely bad: studies indicate that we may be better served by an algorithm than by even expert judgment.

The second option is to employ evidence-based sentencing, but to exclude variables that are legally impermissible or that offend our sense of justice. While even the explicit use of race might survive strict scrutiny analysis, courts may choose to omit race from their models of recidivism. But as variables are omitted from mathematical models, the predictive value of those models is degraded. And what variables are unobjectionable and should be retained? If even something as quotidian as criminal history, a staple in traditional sentencing, can operate as a proxy for race, what variables are free from suspicion? Gender? Age? Family background? As each variable is discarded as antithetical to American legal values, the predictive value of the model dwindles until

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552. Judges may be unlikely to look beneath the interface of the sentencing information system and challenge the underlying statistical basis. See Redding, supra note 77, at 16 n.79 ("Judges and lawyers typically have little or no training in science, and few understand basic statistical concepts.").

553. See Johnson & Gilbert, supra note 33, at 3 (1997) ("The general pattern of judge responses suggests that, while most are willing to work within a guidelines system in some form, they strongly prefer a system in which judges are accorded more discretion . . . ."); U.S. SENTENCING COMM’N, supra note 66, at A-1, 1 (reporting that approximately 40% of surveyed judges believed the guidelines had a high degree of general effectiveness).

554. See U.S. SENTENCING COMM’N, FINAL REPORT ON THE IMPACT OF United States v. Booker on Federal Sentencing vi-vii (2006) (noting that pre-Booker sentences conformed with sentencing guidelines in more than 90% of cases). In United States v. Booker, 543 U.S. 220 (2005), the Supreme Court held that the federal sentencing guidelines violated the Sixth Amendment and remedied the violation by rendering them advisory. Booker, 543 U.S. at 220.

555. See U.S. SENTENCING COMM’N, supra note 554, at vi (noting a post-Booker conformity rate of 85.9%).

556. This is relatively infrequent. See J.C. Oleson, The Antigone Dilemma: When the Paths of Law and Morality Diverge, 29 Cardozo L. Rev. 669, 684 (noting “existing precedents often directly preclude judges from imposing a sentence that is moral and just”).


558. See supra note 84 and accompanying text.

559. See supra Part IV.D.

560. See Ostrom et al., supra note 98, at 27–28 (noting that race was omitted from Virginia’s prediction instrument).

561. See Petersilia & Turner, supra note 42, at 173.

562. See supra note 341 and accompanying text.

563. See Harcourt, supra note 214.

564. See Goodman, supra note 507.
we are left with something no more robust than the best guess of a judge.\textsuperscript{565}

The third option is to reject the actuarial approach.\textsuperscript{566} Just as there is something seductive about the promise of risk prediction, there is something alluring about rejecting the role of the computer in any endeavor that is as fraught with meaning as criminal sentencing:

We forget that the computer is just a tool. It is supposed to help—not substitute for thought. It is completely indifferent to compassion. It has no moral sense. It has no sense of fairness. It can add up figures, but can't evaluate the assumptions for which the figures stand. Its judgment is no judgment at all. There is no algorithm for human judgment.\textsuperscript{567}

But if we do not discriminate between offenders using risk (the regression line), and do not discriminate using clinical judgment (the hunch), then we do not discriminate. In this case, we treat all offenders alike, even though there may be meaningful differences between them.\textsuperscript{568} We may then over-sentence, allowing prisoners to languish needlessly in prisons, at great taxpayer expense, doing serious damage to individuals, families, and communities.\textsuperscript{569} Alternatively, we may under-sentence, allowing truly dangerous offenders back into the community to commit new crimes and create new victims.\textsuperscript{570} The American Law Institute has described this conundrum:

In short, we can avoid the unneeded incarceration of those incorrectly identified as dangerous offenders (whom we cannot separate in advance from the truly dangerous) only by accepting the cost of serious victimizations of innocent parties (whom we cannot identify in advance). There is no wholly acceptable alternative in either direction—indeed, both options approach the intolerable. The proper allocation of risk, as between convicted offenders and potential crime victims, is a policy question as difficult as any faced by criminal law in a civilized society.\textsuperscript{571}

Without question, evidence-based sentencing raises excruciatingly difficult questions. But these are questions that must be answered. "Jurisprudential considerations in premising legal decisions on these specific risk

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{565} See \textit{supra} note 549 and accompanying text.
\item \textsuperscript{566} This is Harcourt's suggestion. Specifically, he advocates randomization instead of discrimination by risk. See generally \textit{HARCOURT, supra} note 15.
\item \textsuperscript{569} See Oleson, \textit{supra} note 15, at 759–60 (summarizing the undesirable effects of mass incarceration).
\item \textsuperscript{570} See Paul H. Robinson, \textit{Fundamentals of Criminal Law 37 (2d ed. 1995) ("To deter an offender from repeating his actions, a penalty should be severe enough to outweigh in his mind the benefits of the crime.").}
\item \textsuperscript{571} \textit{Model Penal Code: Sentencing § 6B.09 cmt. e (Discussion Draft No. 2, 2008).}
\end{itemize}
\end{footnotesize}
factors can no longer be avoided. . ."572 Evaluations of risk are ever more ubiquitous in our “risk society.”573 Judges and jurists must determine whether and how to incorporate these conceptions into modern sentencing practice.

VI. APPENDIX: SUMMARY OF VARIABLES ASSESSED BY RISK INSTRUMENTS

<table>
<thead>
<tr>
<th>Assessment Instrument</th>
<th>Number of Variables</th>
<th>Variables Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burgess (1928)</td>
<td>22</td>
<td>Nature of offense</td>
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<td></td>
<td></td>
<td>Number of associates in committing offense for which convicted</td>
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<td></td>
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<td>Nationality of the inmate’s father</td>
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<td>Parental status, including broken homes</td>
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<td></td>
<td>Marital status of the inmate</td>
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<tr>
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<td></td>
<td>Type of criminal, as first offender, occasional offender, habitual offender, professional criminal</td>
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<tr>
<td></td>
<td></td>
<td>Social type as ne'er-do-well, gangster, hobo</td>
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<tr>
<td></td>
<td></td>
<td>Country from which committed</td>
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<tr>
<td></td>
<td></td>
<td>Size of community</td>
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<td></td>
<td></td>
<td>Type of neighborhood</td>
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<td></td>
<td></td>
<td>Resident or transient in community when arrested</td>
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<td></td>
<td></td>
<td>Statement of trial judge and prosecuting attorney with reference to recommendation for or against leniency</td>
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<td></td>
<td></td>
<td>Whether or not commitment was upon acceptance of lesser plea</td>
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<td></td>
<td></td>
<td>Nature and length of sentence imposed</td>
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<tr>
<td></td>
<td></td>
<td>Months of sentence actually served before parole</td>
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<td>Previous criminal record of the prisoner</td>
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<td>Previous work record</td>
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<td></td>
<td>Punishment record in the institution</td>
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<td>Age at the time of parole</td>
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<td>Mental age according to psychiatric examination</td>
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<td>Personality type according to psychiatric examination</td>
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<td></td>
<td>Psychiatric prognosis</td>
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<tr>
<td>Glueck &amp; Glueck (1930)</td>
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<td>Industrial habits</td>
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<td></td>
<td>Seriousness and frequency of prereformatory crime</td>
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<td>Arrests for crimes preceding</td>
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<td>Penal experience preceding</td>
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<td></td>
<td>Economic responsibility preceding</td>
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<td>Mental abnormality on entrance</td>
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<td>Frequency of offenses in the reformatory</td>
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<td>Ohlin (1951)</td>
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<td>Type of offense</td>
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<td>Sentence</td>
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<td>Type of offender</td>
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<td>Home status</td>
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<td>Community</td>
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<td>Parole job</td>
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<td>Psychiatric prognosis</td>
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<td>Salient Factor Score (1974)</td>
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<td>Prior convictions</td>
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<td>Prior incarcerations</td>
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<td>Age at first commitment</td>
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<td>Auto theft</td>
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<td>Prior parole revocation</td>
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<td>Drug history</td>
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<td>Education grade achieved</td>
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<td>Employment</td>
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<td>Living arrangements on release</td>
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<td>Greenwood (1982)</td>
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<td>Prior conviction for the same charge</td>
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<td>Incarceration for more than 50% of the previous 2 years</td>
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<tr>
<td></td>
<td></td>
<td>Conviction before the age of 16</td>
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<tr>
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<td></td>
<td>Having served time in a juvenile facility</td>
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<tr>
<td></td>
<td></td>
<td>Drug use during the previous 2 years</td>
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<td></td>
<td>Drug use as a juvenile</td>
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<tr>
<td></td>
<td></td>
<td>Unemployment for more than 50% of the previous 2 years</td>
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<tr>
<td>Assessment Instrument</td>
<td>Number of Variables</td>
<td>Variables Measured</td>
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<td>-----------------------</td>
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<td>LS/CMI</td>
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<td>Criminal History</td>
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<td>Education/Employment</td>
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<td>Financial</td>
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<td>Accommodation</td>
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<td>Leisure/Recreation</td>
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<td>Companions</td>
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<td>Alcohol/Drug Problems</td>
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<td>Emotional/Personal</td>
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<td>Attitudes/ Orientation</td>
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<td>VRAG</td>
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<td>Lived with both biological parents to age 16</td>
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<td>Elementary School Maladjustment</td>
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<td>History of alcohol problems</td>
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<td>Marital status</td>
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<td>Criminal history score for nonviolent offenses</td>
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<td>Failure on prior conditional release</td>
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<td>Age</td>
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<td>Victim Injury</td>
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<td></td>
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<td>Any female victim</td>
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<td></td>
<td>Meets DSM criteria for any personality disorder</td>
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<td>LCSC</td>
<td>14</td>
<td>Failed to provide support for at least 1 biological child</td>
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<td>Terminated formal education prior to graduating from high school</td>
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<td>Duration of longest job ever held</td>
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<td>Number of times terminated from a job for irresponsibility or quit</td>
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<td>with no apparent reason</td>
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<td>History of drug or alcohol abuse</td>
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<td>Marital background</td>
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<td>Physical appearance (tattoos)</td>
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<td>Nature of offense (intrusive v. nonintrusive)</td>
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<td></td>
<td>History of prior arrests for intrusive behavior</td>
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<td></td>
<td>Use of weapon or threatened use of weapon during offense</td>
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<td></td>
<td>Physical abuse of significant others</td>
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<td>Number of prior arrests</td>
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<tr>
<td><strong>Virginia Criminal Sentencing Commission Risk Instrument</strong></td>
<td>11</td>
<td>Gender, Age, Marital status, Employment status, Whether the offender acted alone when committing the crime, Additional offenses at conviction, Arrest or confinement within the past 12 months, Prior criminal record, Prior drug felony convictions, Adult incarceration, Juvenile incarceration</td>
</tr>
<tr>
<td><strong>Missouri Sentencing Advisory Commission Risk Assessment Scale</strong></td>
<td>11</td>
<td>Prior unrelated findings of guilt misdemeanor/jail sentences of 30+ days, Prior unrelated felony findings of guilt, Prior prison incarcerations, Five years without a finding of guilt or incarceration, Revocations of probation or parole, Recidivist related present offense, Age, Prior escape, Substance abuse (DOC substance abuse test and verified drug history), Education, Employment</td>
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<td><strong>Washington State Offender Accountability Act Static Risk Instrument</strong></td>
<td>26</td>
<td>Age at time of current sentence, Gender, Prior juvenile felony convictions, Prior juvenile non-sex violent felony convictions for: homicide, robbery, kidnapping, assault, extortion, unlawful imprisonment, custodial interference, domestic violence, or weapon, Prior juvenile felony sex convictions, Prior commitments to a juvenile institution, Total number of commitments to the Department of Corrections, Number of adult felony sentences: murder/manslaughter, Number of adult felony sentences: sex offense, Number of adult felony sentences: violent property conviction for a felony robbery/kidnapping/extortion/unlawful imprisonment/custodial/interference offense, number of adult felony sentences: assault/robbery/kidnapping/extortion/unlawful imprisonment/custodial/interference offense/assault/robbery/kidnapping/extortion/unlawful imprisonment/custodial/interference offense/assault/robbery/kidnapping/extortion/unlawful imprisonment/custodial/interference offense/assault/robbery/kidnapping/extortion/unlawful imprisonment/custodial/interference offense/assault/robbery/kidnapping/extortion/unlawful imprisonment/custodial/interference offense, Number of adult felony sentences: assault offense—not domestic violence related, Number of adult felony sentences: domestic violence assault or violation of a domestic violence related protection order, restraining order, or no-contact order, Number of adult felony sentences: weapon offense, Number of adult felony sentences: drug offense, Number of adult felony sentences: escape, Number of adult misdemeanor sentences: assault offense—not domestic violence related, Number of adult misdemeanor sentences: domestic violence assault or violation of a domestic violence related protection order, restraining order, or no-contact order, Number of adult misdemeanor sentences: weapon offense, Number of adult misdemeanor sentences: property offense, Number of adult misdemeanor sentences: sex offense, Number of adult misdemeanor sentences: other domestic violence: any non-violent misdemeanor convictions such as trespass, property destruction, malicious mischief, theft, etc., that are connected to domestic violence, Number of adult misdemeanor sentences: weapon offense, Number of adult misdemeanor sentences: drug offense, Number of adult misdemeanor sentences: escapes, Number of adult misdemeanor sentences: alcohol offense, Total sentence/supervision violations</td>
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Comments