Risk Assessment in Criminal Sentencing

by

John Monahan

University of Virginia School of Law

Jennifer L. Skeem

University of California, Berkeley

Risk Assessment in Criminal Sentencing

John Monahan

University of Virginia School of Law

jmonahan@virginia.edu

and Jennifer L. Skeem

University of California, Berkeley

jenskeem@berkeley.edu

Corresponding author: John Monahan, University of Virginia School of Law, 580 Massie Road, Charlottesville, VA 22903-1738; email: jmonahan@virginia.edu

Abstract

The past several years have seen a surge of interest in using risk assessment in criminal sentencing, both to reduce recidivism by incapacitating or treating high-risk offenders and to reduce prison populations by diverting low-risk offenders from prison. We begin by sketching jurisprudential theories of sentencing, distinguishing those that rely on risk assessment from those that preclude it. We then characterize and illustrate the varying roles that risk assessment may play in the sentencing process. We clarify questions regarding the various meanings of "risk" in sentencing and the appropriate time to assess the risk of convicted offenders. We conclude by addressing four principal problems confronting risk assessment in sentencing: conflating risk and blame, barring individual inferences based on group data, failing adequately to distinguish risk assessment from risk reduction, and ignoring whether, and if so, how, the use of risk assessment in sentencing affects racial and economic disparities in imprisonment.

Keywords: blameworthiness, mass incarceration, just deserts, rehabilitation, crime control, disparities

Table of Contents

INTRODUCTION

Since shortly after the Civil War, many American states have relied on some inchoate notion of risk assessment in criminal sentencing. New York adopted a parole statute in 1876, and Massachusetts enacted probation into law in 1878, both to be applied to offenders believed unlikely to return to crime. The explicit assessment of an offender's risk soon became a central component of criminal sanctioning in numerous American jurisdictions. In California, for example, indeterminate sanctioning—whereby an offender was given a short minimum sentence and a long maximum one, and released from prison whenever he or she was assessed as presenting an acceptably low risk of recidivism—was introduced in 1917. In the mid-1970s, however, indeterminate sanctioning based on forward-looking assessments of an offender's risk of committing future crime was abolished in California and elsewhere in favor of "truth in sentencing:" fixed periods of confinement based strictly on appraisals of an offender's moral blameworthiness for the crime of which he or she has been convicted (Monahan & Skeem 2014).

Two historical trends must be appreciated to put the role of risk assessment in sentencing in context. First, the demise of risk assessment in sentencing coincided with the rise of "mass incarceration." The growth in incarceration rates in the United States since the early 1970s has been "historically unprecedented and internationally unique" (Travis, Western, & Redburn 2014, p. 2). One percent of the adult American population—2.4 million people—now reside in jails or prisons (Sabol, West, & Cooper 2009). Western European democracies have an incarceration rate one-seventh that of the United States (International Centre for Prison Studies 2013). The human and fiscal toll associated with what some have called the "carceral state" (Simon 2007) has become unsustainable (Cullen, Jonson, & Nagin 2011).

Second, the crime rate in the United States has plummeted since the early 1990s. According to the FBI (2014) the number of violent crimes committed per 100,000 people was 758 in 1991 and 368 in 2013—a decrease of 51 percent. In some cities, the crime decline is nothing short of astonishing. In New York City, for example, the homicide rate is now 18 percent of what it was in 1990 (Zimring 2012).

Some have suggested that these two historical trends are strongly causally related—i.e., that the rise in the rate of imprisonment produced the fall in the rate of crime. However, the National Research Council recently concluded: "The increase in incarceration may have caused a decrease in crime, but the magnitude of the reduction is highly uncertain and the results of most studies suggest it was unlikely to have been large" (Travis, Western, & Redburn 2014, p.4).

Across the political spectrum (Arnold & Arnold 2015), advocates have proposed that one way to begin unwinding mass incarceration without simultaneously jeopardizing the historically low American crime rate is to put risk assessment back in sentencing. It has recently been estimated that courts in at least twenty states have begun to incorporate risk assessment "in some or all cases" of criminal sentencing (Starr 2014, p. 809). Clinical psychologists and other mental health professionals are sometimes involved in in conducting clinical assessments of risk to inform sentencing decisions (Heilbrun, Hart, & Green 2009). Both clinical and non-clinical psychologists are increasingly being asked to develop and validate actuarial risk assessment instruments for use by sentencing courts or parole boards.

We begin this chapter by sketching the major jurisprudential theories of sentencing, distinguishing those that rely on risk assessment from those that preclude it. We then characterize the varying roles that risk assessment may play in the sentencing process, and illustrate these roles by reference to the sentencing policies of several illustrative states and

proposed sentencing policies in the federal system. We clarify questions regarding the various meanings of "risk" in sentencing and questions regarding the appropriate time to assess the risk of convicted offenders. We conclude by addressing what we see as the four principal problems confronting the use of risk assessment in criminal sentencing.

THEORIES OF SENTENCING

Theoretical justifications for criminal sentencing in the United States in the early decades of the 21st century have been aptly described by Michael Tonry (2013, p. 141) as a "crazy quilt, making it impossible to generalize about prevailing normative ideas or an 'American system of sentencing.'" Nonetheless, almost all scholars of sentencing distinguish between two broad and polar opposite approaches to the allocation of criminal punishment. One of these approaches is usually termed "retributive" or "deontological." The adherents of this approach believe that an offender's blameworthiness or culpability for crime committed in the past should be the only consideration in determining his or her punishment. The other approach is typically referred to as "consequentialist" or "utilitarian." The adherents of this approach take the position that the effect of punishment on preventing future crime by an offender or by others should be the only concern in setting his or her punishment. Many scholars endorse some form of hybrid approach to sentencing that includes elements of both the retributive/deontological and the consequentialist/utilitarian theory. This hybrid approach is most often called "limiting retributivism" (Morris 1974). We briefly consider each approach in turn.

Retributive Theories: Just Deserts

Under retributive—sometimes called deontological—theories of sentencing, as Richard Frase (2013, p. 8) has stated, "a punishment is justified according to its inherent value—

whether it is a good or a bad thing in itself, regardless of whether the punishment yields good or bad consequences. Deontological principles are based on values of justice and fairness that are viewed as ends in themselves." In the best known retributive or deontological theory, called "just deserts," offenders should be punished "because they deserve it, and the severity of their punishment should be proportional to their degree of blameworthiness" (Frase 2013, p. 8). "Blameworthiness," in turn, consists of two components: the seriousness of the harm caused by the crime of which the offender has been convicted, and the offender's state of mind—i.e., intent, motive, mental capacity—at the time that he or she committed it.

Whether "blameworthiness" for past crime is to be assessed using empirical (i.e., survey) methods or by more subjective means is a topic of active debate among retributive theorists (Robinson 2013; cf Slobogin & Brinkley-Rubinstein 2013). Psychologists and psychiatrists sometimes play a role in sentencing systems based on retributive principles, but that role is confined to determining whether the offender's perceived blameworthiness for crime already committed should be mitigated (e.g., due to mental illness or intellectual disability) (Melton, Petrila, Poythress, & Slobogin 2007). Assessing the risk of future crime plays no role in sentencing decisions based solely on backward-looking perceptions of blameworthiness.

Utilitarian Theories: Crime Control

Under utilitarian—sometimes called consequentialist—theories, punishment is justified by recourse to its ability to decrease future criminal acts by the offender or by other would-be offenders. As Frase (2013, pp 7-8) has elaborated

> Criminal penalties have the potential to achieve…crime-control effects through several mechanisms: *rehabilitation* of offenders, to address the causes of their offending; *incapacitation* of higher-risk offenders, usually by means of secure custody; specific and

> general *deterrence* of this and other would-be offenders, by instilling fear of punishment; and *moral education.*

Risk assessment is not relevant to deterrence or to moral education. However, both risk assessment (the "incapacitation of higher risk offenders") and risk reduction (the "rehabilitation of offenders") are of central importance in forward-looking consequentialist theories. Without at least some ability to validly estimate an offender's risk of recidivism (e.g., through the use of actuarial assessment instruments) and hopefully to reduce that level of risk (e.g., through the use of evidence-based psychological interventions), there would be few positive "consequences" flowing from consequential theories of sentencing.

Hybrid Theories: "Limiting Retributivism"

Many scholars have argued that any workable theory of sentencing must address *both* retributive *and* utilitarian concerns, rather than just one of them. The most influential hybrid theory of sentencing is that proposed by Norval Morris (1974) and called "limiting retributivism." In Morris's theory, retributive principles set upper (and sometimes lower) limits on the severity of punishment, and within this range of what he called "not undeserved" punishment, utilitarian concerns—such as the offender's risk of recidivism—could be taken into account. Kevin Reitz (2011, p. 472) elaborates:

> Here, proportionality in punishment is understood as an imprecise concept with a margin of error, not reducible to a specific sanction for each case. The "moral calipers" available to human beings are set wide, the theory asserts, producing a substantial range of justifiable sentences for most cases. At some upper boundary, we begin to feel that a penalty is clearly disproportionate in severity and, at a lower point, we intuit that it is clearly too lenient (Morris 1974; Frase 2002). Imagining a generous spread between the

two, limiting retributivism would permit utilitarian purposes to determine sentences within the morally permissible range.

Different theories of "limiting retributivism" might specify a broader or a narrower range of "limits" set by retributive concerns. A mean period of sanctioning of five years, for example, might have a permissible range of sentencing—set by backward-looking moral considerations—of four-to-six years, of three-to-seven years, or of two-to-eight years—ranges within which forward-looking risk assessments might be used to choose a specific sentence length. For example, Christopher Slobogin (2011, p. 1130) has articulated an extremely utilitarian model of sentencing that would have a broad range of permissible sentences, "cabined only very loosely by desert."

It bears emphasis that the use of risk assessment under any form of this hybrid, "limiting retributivism" theory implies that even a very high estimated risk of future crime does not justify a sentence that exceeds the upper-bound of severity perceived as morally proportionate to the crime of which the offender has been convicted. Simply put, risk assessment should not be used to sentence offenders to more time than they morally deserve.

The highly-influential Model Penal Code (Tentative Draft No. 3; American Law Institute 2014) explicitly adopts the hybrid, "limiting retributivism" approach to criminal sentencing. According to the Code, sentencing must take place "within a range of severity proportionate to the gravity of offenses, [and] the blameworthiness of offenders." Within this range, a specific sentence must be chosen in a manner that promotes "offender rehabilitation [and] incapacitation of dangerous offenders" (§1.02(2), p. 2). This hybrid model of sentencing is the one that we adopt here to structure our discussion of risk assessment.

THE ROLES OF RISK ASSESSMENT IN SENTENCING

Within the constraints described above lie three important roles for risk assessment in sentencing:

Role 1: To Inform Decisions Regarding the Imprisonment of Higher-Risk Offenders

Risk assessment can provide an empirical estimate of whether an offender has a sufficiently high likelihood of again committing crime to justify incapacitation. That is, within a range of severity set by moral concerns about the criminal act of which the offender has been convicted, risk assessment can assist in determining whether, on utilitarian crime-control grounds, an offender should be sentenced to the upper-bound of that range (Skeem & Monahan 2011).

Role 2: To Inform Decisions Regarding the Supervised Release of Lower-Risk Offenders

Risk assessment can provide an empirical estimate of whether an offender has a sufficiently low likelihood of again committing crime to justify an abbreviated period of incapacitation, supervised release (probation/parole), or no incapacitation at all. Within a range of severity set by moral concerns about the criminal act of which the offender has been convicted, risk assessment can assist in determining whether, on utilitarian crime-control grounds, an offender should be sentenced to the lower-bound of that range (Monahan & Skeem 2014).

Role 3: To Inform Decisions Designed to Reduce Offender Risk

Risk assessment can also inform correctional strategies to *reduce* an offender's risk. Any valid tool can be used to identify higher-risk offenders to prioritize for more intensive services, placing others at appropriately lower levels of service. Programs that match the intensity of

correctional services to offenders' risk level have been shown to reduce recidivism (Lowenkamp et al. 2006).

As we will discuss below, some tools—in addition to estimating an offender's risk *status*, or likelihood of recidivism compared to other offenders—can also be used to estimate an offender's risk *state*, or current likelihood of recidivism compared to his or her past likelihood (Skeem & Mulvey 2002). These tools include "variable" risk factors that can be used to monitor ebbs and flows in an offender's risk state and adjust levels of supervision and services accordingly. As risk state increases, services and surveillance can be intensified to manage risk.

These tools also attempt to identify "causal" risk factors that can be changed by a given rehabilitation program, and, when changed, will result in a lowering of the likelihood that the offender will commit additional crime. To the extent that causal risk factors can be identified and modified, risk assessment can do more than passively estimate or monitor an offender's likelihood of recidivism. It can actively reduce that likelihood (Dvoskin, Skeem, Novaco, & Douglas 2012).

Each of these three roles for risk assessment in sentencing, if successfully accomplished, can advance the crime-control objectives of the criminal law.

CURRENT PRACTICE OF RISK ASSESSMENT IN AMERICAN SENTENCING

Crime control objectives have taken center stage in the current criminal justice reform movement: "From appalling incarceration numbers, budgetary crises, and greater public knowledge, momentum for reform has redirected the discussion on crime away from the question of how best to punish to how best to achieve long-term public safety" (Subramanian, Moreno & Broomhead 2014, p. 2). Over recent years, 27 states have enacted large-scale, data-based justice

reinvestment efforts to use resources more efficiently and effectively by "expanding eligibility for community corrections and improving supervision, employing the use of diversion and treatment, revising sentence lengths and prioritizing prison resources" (Lawrence 2013, p. 3). Risk assessment plays an essential role in many of these state efforts—and figures prominently in proposals for sentencing reform.

In fact, the Model Penal Code (Tentative Draft No. 3; American Law Institute, 2014) directs sentencing commissions to develop valid actuarial instruments to estimate offenders' relative risk and treatment "needs" (§ 6B.09)—and encourages the use of these instruments to inform decisions about whether to impose a community or prison sentence, particularly for "otherwise prison-bound offenders who may be safely diverted from incarceration" (p. 33).

Risk Assessment in State Sentencing

Risk assessment has become a staple of discourse about "evidence-based" sentencing and corrections (Casey, Warren & Elek 2011; Desmarais, Johnson, & Singh 2015; National Conference of State Legislators 2015). Across the U.S., statutes and regulations require that risk assessments inform individualized decisions about the appropriate level of security/supervision or services/programs for state probationers, prisoners, and parolees (Role 3 above); or mandate that risk assessments be included in parole eligibility reports or in presentence investigation reports (Roles 1-3 above).

As explained later, the most controversial applications involve "front-end" sentences that judges impose. A handful of states have incorporated risk assessment into sentencing guidelines as one factor that judges *may* consider in determining the appropriate sentence within the limits established by law. For example, the Virginia Criminal Sentencing Commission (2014) has developed, validated, and applied an actuarial risk assessment tool to reduce the state's jail and

prison population by 25%. A tool that distills simple risk factors (e.g., age, felony record, offense type, not regularly employed, male) is used to assess nonviolent offenders bound for incarceration under the state's sentencing guidelines. Those who represent a low risk of reoffending are recommended for alternative punishment like probation, jail (rather than prison), or restitution payments—offenders with higher scores proceed with their sentence recommendations unchanged. In 2014, 38% of low risk offenders recommended for an alternative were sentenced by judges to an alternative punishment.

The front-end approach adopted by the Utah Sentencing Commission (2014) focuses more explicitly on risk reduction than risk assessment. The Commission specified that "a validated risk and criminogenic needs assessment" should be conducted on all felony convictions prior to sentencing to accurately "diagnose" the offender's risk and needs to tailor supervision and treatment orders that can reduce recidivism. The risk-needs tool applied as part of the presentencing investigation is the 54-item LSI-R (Andrews & Bonta 1995; subscales include criminal history, antisocial attitudes/orientation, education/employment problems, substance abuse). When imposing a sentence, the judge is encouraged to consider both the sentence calculated under the sentencing guidelines and the LSI-R-influenced recommendation of Adult Probation and Parole.

Some states have applied risk assessment in novel ways to scaffold justice reinvestment efforts. For example, at the front end, nonviolent felony drug offenders who obtain moderate-high scores on the LSI-R and high scores on test for drug problems are diverted from prison into community-based drug treatment programs (Kansas Sentencing Commission 2015). At the back end, risk assessment is grafted onto efforts to shorten sentences by creating or expanding "earned time credits," which allow certain inmates to accelerate their release date by participating in

educational, vocational, treatment, or other risk reduction programs (Larkin 2014; Lawrence 2009). For example, in Washington (State of Washington Department of Corrections 2015), certain inmates may reduce their prison time by up to 50% by participating in available programs outlined in their individual re-entry program, which is informed by risk and needs assessment. Earned time reductions are limited (to 10-33%) for some inmates with violent conviction offenses or relatively high risk scores.

Risk Assessment in Federal Sentencing

Over recent years, multiple bipartisan bills have been introduced in Congress to reform federal sentencing—so far, to no avail. Still, pressure is building behind efforts to unwind federal mass incarceration. Of bills before Congress, the bipartisan SAFE Justice Reinvestment Act of 2015 (HR 2944) is the most comprehensive. This bill stitches together reforms modeled after successful state justice reinvestment efforts, including narrowing the range of offenders to whom mandatory minimum sentences apply (a front-end fix) and expanding recidivism reduction programs and early release incentives across offenders (a back-end fix).

Risk assessment plays a role at the back-end by structuring risk reduction efforts and earned time credit. The SAFE Act directs the Attorney General to develop and validate a postsentencing assessment of inmates' risks and needs, ensure that staff can reliably administer the assessment, and partner with agencies to make relevant risk reduction programming available to inmates (from substance abuse treatment to "faith based classes"). Prison staff would assess each prisoner upon admission to develop a case plan for risk reduction or—for low risk offenders—for productive activity (e.g., prison jobs). Staff would share the case plan with the inmate and periodically review the inmate's progress. Inmates who successfully comply with their case plan would earn up to a 33% reduction in their prison term. Although ineglible for

earning time credit, inmates convicted of homicide, terrorism, or sex offenses would earn other incentives (e.g., commissary, visitation).

In sharp contrast with recent bills that would limit the amount of earned time credit available to high risk offenders (see Larkin 2014), risk assessment would have zero influence on the amount of early release time that inmates can earn. And risk assessment would play no role in front-end sentencing.

Controversies in American Sentencing

These restrictions may be deliberate, given controversy that has begun swirling around risk assessment—mostly when applied to front-end sentencing. Former Attorney General Eric Holder (2014) has expressed hesitation about using risk assessment to inform front-end sentencing decisions, especially those involving imprisonment:

> "By basing sentencing decisions on static factors and immutable characteristics—like the defendant's education level, socioeconomic background, or neighborhood—[risk assessments] may exacerbate unwarranted and unjust disparities that are already far too common in our criminal justice system and in our society. Criminal sentences must be based on the facts, the law, the actual crimes committed, the circumstances surrounding each individual case, and the defendant's history of criminal conduct. They should not be based on unchangeable factors that a person cannot control, or on the possibility of a future crime that has not taken place."

Both Holder and the Department of Justice (Wroblewski 2014) urged the US Sentencing Commission to study whether front-end risk assessment has a disparate and adverse effect on racial minorities and the poor.

With this pointed exception, Holder (2014) celebrated the momentum building behind data-driven justice reform and specifically supported the use of risk assessment in back-end applications designed to reduce risk: “Data can help design paths for federal inmates to lower these risk assessments, and earn their way towards a reduced sentence, based on participation in programs that research shows can dramatically improve the odds of successful reentry.” In Holder’s view, everyone—even high risk inmates—should have the chance to reduce their prison time.

The SAFE Act is remarkably consistent with these views. As Larkin (2014) noted, earned time statutes “have never been as controversial as sentencing laws” (p. 28). By the same token, risk assessment is less controversial when applied to scaffold risk reduction efforts (Role 3 above) than to inform decisions about imprisonment or release (Roles 1 and 2).

QUESTIONS OF TERMINOLOGY & GOALS

The many and varied applications of risk assessment to sentencing are accompanied by a bewildering array of predictive factors, assessment instruments, and labels for both—*risk/needs, criminogenic, static/dynamic, promotive/protective, proxy, actuarial*…the list goes on. As Kraemer (2003) observed in a related context, “the absence of precise language is perhaps the major problem in current risk research” (p. 41). When research is translated to practice, the problem is amplified. Thus, we define more precisely what is meant by such basic concepts as “risk” and “needs.”

Risk, Promotive and Proxy Factors

Risk Factors

A risk factor is a variable that precedes and increases the likelihood of criminal behavior (Kraemer et al. 1997). Monahan and Skeem (2014) differentiated among the four different types

of risk factors for recidivism shown in Table 1. A *fixed marker* is a risk factor that cannot be changed (e.g., early onset of antisocial behavior). In contrast, both *variable markers* and *variable risk factors* can be shown to change over time. Change can be rapid (e.g., substance abuse can change daily), or slow (e.g., criminal behavior and antisocial traits change over years). Variable markers (like age) cannot be changed through intervention, unlike variable risk factors (like employment problems). *Causal risk factors* are variable risk factors that, *when changed through intervention*, can be shown to change the risk of recidivism.

All four types of risk factors are relevant to *risk assessment* (Roles 1 & 2 above). Variable markers and variable risk factors are relevant to monitoring changes in risk over time (for demonstrations, see Cohen & VanBenschoten 2014; Greiner, Law, & Brown 2015; Jones, Brown & Zamble 2010; Howard & Dixon 2013). But only causal risk factors are directly relevant to *risk reduction* (Role 3 above). Put simply, treatment-relevant risk factors are causal risk factors. Unless a variable risk factor has been shown to be causal, there is little reason to assume that reducing the risk factor will reduce violence.

This fact is rarely recognized in current discourse. Instead, variable risk factors have been confused with causal risk factors under the rubric of "needs," "criminogenic needs," or "dynamic risk factors." The latter phrases are often misused as synonyms for causal risk factors—they typically reference risk factors that *theoretically* can be changed through intervention to reduce risk, but empirically have not been shown to do so. Most "needs" are variable risk factors, given the current state of evidence.

The most compelling form of evidence that a risk factor was causal would be a randomized controlled trial (RCT) in which a *targeted* intervention was shown to be effective in changing one or more variable risk factors, and the resulting changes were shown to reduce the

likelihood of post-treatment recidivism (for rare demonstrations, see Kroner & Yessine 2013). It is nearly impossible to locate such randomized controlled tests. Most correctional programs are aimed at multiple factors at the same time in a "blunderbluss fashion" (Kraemer, Stice, Kazdin, Offard & Kupfer 2001, p. 854) that thwarts efforts to identify causal risk factors. Substance abuse and criminal thinking patterns have been targeted most precisely in treatment research and come closest to qualifying as causal (see Monahan & Skeem 2014).

Promotive Factors

The principles outlined above for defining risk factors (which predict the *unwelcome* outcome of reoffending) also apply to promotive factors (which predict the *welcome* outcome of desistance from offending; see Offard & Kraemer 2000). So a promotive factor precedes and increases the likelihood of desistance; and may be fixed, variable, or causal.

Promotive factors often are confused with protective factors. Promotive factors simply act in the opposite direction of risk factors (i.e., predict desistance via a main effect, across high- and low- risk cases) whereas protective factors moderate the impact of risk factors (i.e., predict desistance via an interaction, particularly in high risk cases; Masten 2014). That is, promotive factors reduce the probability of reoffending, whereas protective factors reduce the probability of reoffending among persons exposed to risk factors (Farrington, Loeber & Ttofi 2012).

To scaffold "positive" risk reduction approaches (focused on strengths rather than deficits), promotive factors have been added to some risk assessment tools. The value of doing so is not clear. On one hand, when a promotive factor (e.g., gainful employment) is merely the polar opposite of a risk factor (e.g., unemployment), two terms are applied to the same variable and nothing substantive is gained (Farrington et al. 2012). On the other, a few promising factors have emerged from the desistance literature (e.g., supportive intimate relationships; hope and

self-efficacy; prosocial identity; see Serin, Lloyd & Hanby 2010; Ullrich & Coid 2011)—and promotive scales have been shown to add predictive utility to risk scales and to moderate risk (Jones, Brown, Robinson & Frey 2015). On balance, much more (and better) research is needed before variables that robustly meet the criteria for promotive factors can be identified—much less, *causal* promotive factors relevant to risk reduction.

Proxy Factors

In the context of sentencing, risk factors are often labeled "proxies" for other variables. Frase (2014) and Harcourt (2015) have called criminal history a proxy for risk. This use of the term seems appropriate. When sentencing commissions provide a utilitarian rationale for embedding criminal history in their guidelines (e.g., criminal history identifies high risk offenders who need to be incapacitated), they telegraph their intent to use criminal history (an indirect indicator) to approximate or "stand in" for risk (which is not measured directly).

Other uses seem inappropriate. Opponents of risk assessment in sentencing assert that "criminal history has become a proxy for race" (Harcourt 2015)—as have a number of other risk factors (e.g., employment status, education, and neighborhood are proxies for race and poverty; Starr 2014). Here, the label "proxy" conveys little more than an observation that these predictors of recidivism overlap. Criminal history and race are correlated—but it is not clear that criminal history is intended to proxy for race (i.e., to camouflage discrimination).

In our view, little light will be shed on the relation between risk factors—particularly controversial ones—unless terms like "proxy" are operationally defined. Kraemer et al. (2001) clarify how risk factors can work together to predict an outcome like recidivism. In their system, a proxy is a correlate of a strong risk factor that also appears to be a risk factor for the same outcome—but the only connection between the correlate and the outcome is the strong risk factor

correlated with both. By their criteria, criminal history is a proxy for race only if race "dominates" in predicting recidivism (i.e., maximum potency in predicting recidivism is achieved by race alone – not criminal history alone, or the combination of criminal history and race). This is not the case. Because criminal history predicts recidivism more strongly than race, it will dominate or codominate race (Berk 2009; Bonta, Law, & Hanson 1998; Durose, Cooper & Snyder 2014). Criminal history is not a proxy for race—instead, it overlaps race and possibly mediates race's relation to recidivism.

Purpose, Structure and Validation of Instruments

As risk assessment has become part of mainstream corrections and sentencing, an active industry has grown up around it. Commercial "off the shelf" tools—sometimes customized to sites—have proliferated alongside government instruments designed for specific applications. This dizzying array of risk assessment tools may be ordered along three orthogonal dimensions: purpose, degree of structure, and quality of validation.

Purpose

Risk assessment instruments differ in the sentencing goal(s) they are meant to fulfill: Some are designed exclusively to predict recidivism (assess "risk" to fulfill Roles 1 and 2 above), whereas others are meant to inform risk reduction (assess "needs" to fulfill Role 3 above). Prediction-oriented tools (like Virginia's risk assessment) are designed for efficient prediction, whereas reduction-oriented tools (like the LSI-R used in Utah) include variable risk factors to address in supervision and treatment. As the emphasis on risk reduction increases, so should the emphasis on variable (and ostensibly causal) risk factors.

In our view, distinctions between “risk” and “needs” (and associated “generations” of tools) create more confusion than understanding. Basically, tools differ in the sentencing goal they are meant to fulfill and in their emphasis on variable risk factors.

Structure

Risk assessment tools also differ in the extent to which they structure or replace professional judgment with actuarial rules and formulae (Skeem & Monahan 2011). Specifically, tools vary in whether they specify rules for generating two, three, or all four of the following components of the risk assessment process: (1) identifying empirically-valid (and legally acceptable) risk factors, (2) determining a method for measuring (“scoring”) these risk factors (3) establishing a procedure for combining scores on the risk factors, and (4) producing an estimate of recidivism risk.

Some tools structure only the identification and measurement processes, leaving professionals to rely on their own judgment to combine scores and estimate whether an offender is low, medium, or high risk (see the HCR-20; Guy, Kusaj, Packer & Douglas 2015). Others, like the LSI-R, structure the identification, measurement, and combination of risk factors, but permit a “professional override” of the calculated risk estimate to recognize that rare factors outside the estimate can influence the likelihood of recidivism in a particular case. Completely actuarial tools, like the Virginia risk assessment (Farrer-Owens 2013), structure all four components of the process (see also Rice, Harris, & Lang 2013). Once an individual’s risk has been calculated, the risk assessment process is complete.

Validation

Instruments used at sentencing also differ with respect to their evidence base (Desmarais et al 2015). Although some have been rigorously studied and evaluated by independent parties,

many have not. As observed by Gottfredson & Moriarty (2006), fundamental requirements for developing, cross-validating, and applying risk assessment tools are "routinely ignored or violated." These requirements are vital. Unless a tool is validated in a *local system*—and then periodically *re-validated*—there is little assurance that it works. Insufficiently trained and monitored staff may not reliably score a risk assessment tool. Variables that predict recidivism in a jurisdiction with ample services for offenders may not predict recidivism in a resource-poor jurisdiction. Similarly, when a variable becomes relatively common in the general population and loses its specificity to offending (e.g., having a tattoo; coming from a single-parent household), its utility for predicting recidivism may erode.

Selecting an Instrument

Despite heated debate about the superiority of tools that differ in their purpose and/or structure, there is no compelling evidence that one validated tool forecasts recidivism better than another. In a meta-analysis of 28 studies that controlled well for methodological variation, Yang, Wong, and Coid (2010) found that the predictive efficiencies of nine risk assessment instruments were essentially ''interchangeable'' (see also Campbell, French & Gendreau 2009). Point estimates of each instrument's accuracy tended to fall within a narrow band bounded by overlapping confidence intervals: The Area Under the Curve (AUC) across instruments ranged from .65 to. 71 (Yang et al. 2010), suggesting a 65-71% chance that a randomly selected recidivist obtained a higher score on the instrument than a randomly selected non-recidivist. Although it is imperfect, the AUC is a measure of predictive efficiency that it widely applied in the risk assessment field because it facilitates comparison across studies that vary in base rates of recidivism. AUCs in the range typically observed for risk assessment tools (i.e., .65-.71) may be viewed as "medium" effects (see Rice & Harris 2005).

Two factors may help explain the similar predictive performance of well-validated instruments. First, it is possible that each instrument reaches a "natural limit" to predictive utility, beyond which it cannot improve. Some evidence suggests that a limiting process makes recidivism impossible to predict beyond a certain level of accuracy (Coid et al. 2010). A scale can reach this limit quickly with a few maximally predictive items, before reaching a sharp point of diminishing returns. The limit can, however, be reached via alternative routes (e.g., fixed markers vs. variable risk factors).

Second, well-validated tools may manifest similar performance because they tap ''common factors'' or shared dimensions of risk, despite their varied items and formats. In an innovative demonstration, Kroner, Mills, and Reddon (2005) printed the items of four well-validated instruments on strips of paper, placed the strips in a coffee can, shook the can, and then randomly selected items to create four new tools. The "coffee can instruments" predicted recidivism as well as the original instruments did. Factor analyses suggested that the instruments tap four overlapping dimensions: criminal history, an irresponsible lifestyle, psychopathy and criminal attitudes, and substance-abuse-related problems. Each of these dimensions was similarly predictive of recidivism.

In our view, the choice of tool should primarily be guided by the actual purpose of risk assessment in a specific sentencing context. Given a pool of instruments that are well validated for the groups to which an individual belongs, our view is that the choice among them for use in sentencing should be driven by:

(1) the ultimate purpose of the evaluation. If the ultimate purpose is to characterize an individual's likelihood of recidivism relative to other people, then choose the most efficient instrument available. If the ultimate purpose is to manage or reduce an

individual's risk—and there is a realistic likelihood that individualized treatment services will be provided—then value may be added by choosing an instrument that includes variable risk factors (in the hope that some of these factors are causal).

(2) the principle of fairness. Choose the instrument that yields the most similar predictive accuracy across groups (to minimize predictive bias) and the lowest mean score differences between groups (to minimize disparate impact; see Problem 4 below).

QUESTIONS OF TIMING

One question with which sentencing authorities have wrestled since the late nineteenth century has been the appropriate point in time to assess an offender's risk of recidivism for the purpose of determining the length of his or her prison sentence. There have been two basic options. The first is to perform a risk assessment at the time an offender is being sentenced, to inform the decision as to the length of sentence that the judge will impose. As described above, this is often referred to as "front-end" risk assessment. The second option is to sentence an offender to a largely indeterminate period of imprisonment, and to perform a risk assessment later, at the time an offender is being considered for having his or her sentence terminated by means of release or parole to a non-custodial setting. This is usually referred to as "back-end" risk assessment (Frase 2013; Reitz 2011).

With the rise of "truth in sentencing" in the mid-1970s, discretionary parole and the risk assessments that guided it suffered a significant diminishment. Many states enacted determinate sentencing schemes that abolished parole entirely (Petersilia 2011). By 2000, less than one-quarter of all offenders released from American prisons did so by means of discretionary parole (Rhine 2012, p. 632).

In 2011, the American Law Institute recommended that parole boards no longer have discretion over when prisoners should be released. Post-release supervision of former prisoners in the community—now often called "reentry" programming—would still be provided by parole agencies, but sentence length would be determined by a judge at the front-end of the sentencing process.

FOUR PERSISTENT PROBLEMS OF RISK ASSESSMENT IN SENTENCING

Problem 1: Conflating Risk and Blame is a Category Error

Many clinical psychologists and psychiatrists have experience in risk assessment primarily by virtue of their involvement in performing evaluations for civil commitment. The legal standard for civil commitment in virtually all American states requires two findings: mental illness, and "dangerousness." In the words of one illustrative state statute, in order for a person to be civilly committed, there must be "a substantial likelihood that, as a result of mental illness, the person will, in the near future, cause serious physical harm to himself or others" (§37.2-809 (B), Code of Virginia, 2008). To mental health professionals accustomed to performing risk assessments in the context of civil commitment, the choice of risk factors in sentencing may appear baffling. "Why not just choose the risk factors with the highest predictive validity?," they reasonably may wonder.

The reason why the choice of risk factors in civil commitment seems obvious while the choice of risk factors in sentencing is fraught is because civil commitment is governed by public health law (Levin, Hennessey & Petrila 2010), while sentencing is governed by criminal law. Perceptions of blame play the lead role in retributive theories of sentencing, and an important role in hybrid theories that involve "limiting retributivism." The role of a healthcare professional,

however, is to treat a patient's existing diabetes, cirrhosis, or lung cancer, not to "blame" a patient for having eaten, drank, or smoked too much. The tension between backward-looking retributivism and forward-looking utilitarianism that pervades criminal sentencing is absent from healthcare. In healthcare, utilitarian concerns about the individual patient's prognosis are usually all that matter.

For example, the use of gender as a risk factor for recidivism in sentencing is highly contested (Starr 2014, 2015). But *not to use* gender as a risk factor for various health conditions would be unimaginable. Consider cancer. All cancers of the reproductive system, of course, are gender-specific. No rational oncologist screening for ovarian or uterine cancer would bother screening men, nor would he or she screen women for prostate or testicular cancer. But obvious reproductive differences that constitute the nature of what is meant by sex are far from the only gender differences pertinent to healthcare. Gender differences in the prevalence of various diseases are more the norm than the exception. For every man diagnosed with breast cancer, 181 women are so diagnosed. For every woman diagnosed with esophageal cancer, three men receive that diagnosis (Ernberg 2012, Tables 3 and 4). Whatever controversy is raised by the use of gender as a risk factor in sentencing, the *failure* to use gender as a risk factor in healthcare decision making would be seen as flagrant malpractice.

If the choice of which risk factors to use in sentencing is not determined solely by considerations of predictive validity, as it is in healthcare, what other considerations come into play? In the view of many scholars of sentencing (Tonry 2014; Starr 2014), perceptions of blame impose not only an upper (and perhaps a lower) limit on permissible sentences, but also serve as an essential moral constraint on the type of risk factors that can be used to assess an offender's likelihood of recidivism. As we argue above, the task of assigning blame for an offender's past

crime and the task of assessing an offender's risk for future crime are orthogonal aspects of sentencing. Indeed, the "limiting retributivist" theory of sentencing—which attempts to take both blame and risk into account—does so only by virtue of its partitioning the decision making process in sentencing into two autonomous components: *first*, the sentencer should focus on assigning blame for past crime in order to establish a range of "not undeserved" sentences; and *then*, the sentencer should focus on the consequences for controlling future crime by choosing a specific sentence within the established range. In this manner, the inquiries into an offender's blame and into an offender's risk are not so much integrated as they are sequenced.

Dealing with the orthogonal concerns of blame and risk seriatim is not unduly problematic when a given variable bears on both concerns to similar effect, i.e., when both concerns point in the direction of raising, or both point in the direction of lowering the severity of a sentence otherwise given. But dealing with the orthogonal concerns of blame and risk at the same time becomes problematic when a given variable bears importantly on one of the two concerns, but is irrelevant to the other (Harcourt 2015). And dealing with the orthogonal concerns of blame and risk in chorus becomes highly contested when a given variable bears on each of the two concerns, but to opposite effect (Morse 2015). Illustrations of each of these three possibilities follow.

(1) Variables that affect perceptions of blame and assessments of risk in similar ways

The clearest example of a variable that has comparable effects on perceptions of blame and on assessments of risk is involvement in crime (Roberts & Yalincak 2014). It has long been axiomatic in the field of risk assessment that past crime is the best predictor of future crime. All actuarial risk assessment instruments reflect this empirical truism. The empirically-derived

California Static Risk Assessment Instrument, for example, contains 22 risk factors for criminal recidivism, fully 20 of which—all but gender and age—are indices of past crime (Turner, Hess & Jannetta 2009).

An offender's prior involvement in crime, however, indicates not only an increased risk that the offender will commit crime in the future, it also aggravates the perception that the offender is blameworthy for the crime for which he or she is being sentenced (Roberts & von Hirsch 2010). That is, "a record of prior offenses bears *both* on the offender's deserts *and* on the likelihood of recidivism" (von Hirsch 1976, p. 87, emphases added).

The existence of prior criminal convictions is not the only risk factor that reflects an offender's involvement in crime. Committing crime while under the influence of drugs such as methamphetamine, being a member of a violent gang, or being convicted of the current crime while under legal restraint (i.e., while on probation, parole, or bail), all reflect the depth of an offender's involvement in crime (Tonry 2014) and are often used simultaneously to aggravate perceptions of blame for past crime and to increase assessed risk of future crime.

Of course, it has long been known that prior criminal convictions can reflect the differential selection of given groups by police to arrest, by prosecutors to indict, and by judges and juries to convict—and not just the differential involvement of given groups in crime (Blumstein 1993). The extent to which this is the case is "highly contested" (Frase 2014) in current debates on sentencing policy (see Problem 4, below).

(2) Variables that affect either perceptions of blame or assessments of risk, but not both

Demographic and life history variables that characterize an offender may have significant predictive validity in assessing his or her likelihood of recidivism, but no bearing on the

ascription of blame for the crime of which he or she was convicted. Consider first demography. Both race and gender correlate significantly with criminal recidivism (Blumstein, Cohen, Roth & Visher 1986; Durose, Cooper & Snyder 2014). However, neither race nor gender is seen as bearing on an offender's blameworthiness for having committed crime—as a class, offenders who are women are seen as no more (or no less) blameworthy than offenders who are men, and offenders who are African American are seen as no more (or no less) blameworthy than offenders who are white. As Frase (2014) has argued, settled law has taken one of these demographic variables off the table for use as a risk factor in sentencing:

> Race is really in a class by itself. The history of de jure racial discrimination in the United States, and continuing de facto discrimination, make race a highly "suspect" criterion, especially when it is used to support policies that disfavor minorities and favor whites (which is the most likely scenario in the sentencing context)… [R]ace can never be given any formal role in issues of sentencing severity even if it is found to be correlated with and predictive of risk (p. 149).

The law is much less settled with respect to the use of an offender's gender as a risk factor in sentencing, however. One of us has argued that using gender as a risk factor for recidivism should have little difficulty surviving legal challenge (Monahan 2006). Starr (2014) on the other hand, recently has written that using gender as a risk factor in sentencing "raises serious constitutional concerns, and… is also troubling on policy grounds" (p. 806). Lay opinion on this issue appears to cleave as sharply as academic commentary: in a recent survey, Scurich and Monahan (in press) found that approximately half the respondents were open to the possibility of using gender as a risk factor for criminal recidivism, and half were not.

The use of life history variables in sentencing has received even less legal attention than the use of demographic ones. Whether a convicted offender has completed high school, or is employed, are predictively valid risk factors for recidivism (Bliesener, Beelmann & Stemmler 2011; Tanner-Smith, Wilson & Lipsey 2013), and are frequently included on risk assessment instruments used in sentencing (Virginia Sentencing Commission, 2014). But educational attainment and employment status do not bear on an offender's blameworthiness for having committed crime. A high school drop-out is no more (or no less) blameworthy than a high school (or college) graduate when he or she decides to commit a crime. The same can be said of people with or without a job. The developers of many risk assessment instruments appear to believe that it is acceptable to use an offender's life decisions as risk factors in sentencing. Others strongly disagree. According to one influential scholar (Tonry 2014):

> Free citizens are… entitled to decide to seek university degrees, join apprenticeship programs, or live lawfully hand-to-mouth as many artists, musicians, and writers do by some combination of choice and necessity. Citizens are entitled to choose not to work at all and to live on income from trust funds or indulgent parents… Many offenders, however, do not—in a fundamental sense—choose to be poorly housed, poorly employed or unemployed, and poorly educated. Some do. Even if poor peoples' choices are more constrained than those of more privileged people, they are lawful choices all the same (p. 174).

(3) Variables that affect perceptions of blame and assessments of risk in opposite ways

The clearest example of a variable that has opposite effects on perceptions of blame and on assessments of risk is combat-induced trauma. Elbogen et al (2014), in a large study of

veterans who served in Iraq and Afghanistan, found that combat experience and resulting post-traumatic stress disorder (PTSD) were among the strongest risk factors for a soldier's perpetration of serious violence to others. Use of combat-induced trauma, therefore, can function as a risk factor for recidivism and therefore serve to increase the severity of a criminal sentence otherwise given. According to no less an authority than the United States Supreme Court, however, such trauma can also function to mitigate the offender's blameworthiness for the commission of crime, and therefore serve to reduce the severity of the criminal sentence otherwise given.

In Porter v. McCollum, 558 U.S. 30 (2009), the Court unanimously held that the trial counsel of a defendant who was a decorated war veteran had rendered ineffective assistance by failing to present his client's military service as a mitigating factor in sentencing. "Our Nation," the Court stated, "has a long tradition of according leniency to veterans in recognition of their service, especially for those who fought on the front lines as Porter did. Moreover, the relevance of Porter's extensive combat experience is not only that he served honorably under extreme hardship and gruesome conditions, but also that the jury might find mitigating the intense stress and mental and emotional toll that combat took on Porter" (p. 44). In response to *Porter*, the federal Sentencing Guidelines (United States Sentencing Commission 2010; §5H1.11) were revised to permit military service to be invoked in arguing for a "downward departure" from the sentence recommended by the Guidelines. The Commentary to the Guidelines states that "courts have often considered the impact military service has on the individual before the court; sometimes courts impose more lenient sentences when, in the court's view, the defendant suffers from a mental or emotional condition that is traceable to the defendant's military service."

Our purpose in this Section has not been to call various risk factors for recidivism "in" or "out" for use in sentencing. Rather, we have attempted to sharply distinguish risk assessment in the context of sentencing from risk assessment in the more familiar public health context of civil commitment, and to describe how, in the view of many scholars, perceptions of blame morally constrain not just the range of possible sentences, but also the nature of the risk factors that can be used to sentence an offender within this range. As we have argued, the task of assigning blame for an offender's past crime and the task of assessing an offender's risk for future crime are orthogonal aspects of sentencing. At the end of the day, however, someone—a judge or perhaps a parole board—must join these two concerns together to form a single value on a continuous dimension of sentencing severity. The way in which these concerns are united are matters of great debate. To date, this debate has largely been confined to the fields of law and philosophy. We hope to widen the conversation to include psychologists and other mental health professionals.

Problem 2: The virtual impossibility of making individual inferences from group data is a canard

The issue that in recent years has generated more controversy than any other in the field of risk assessment is Hart, Michie, & Cooke's (2007) provocative thesis that the margins of error surrounding individual risk assessments of violence are so wide as to make such predictions "virtually meaningless" (p. 263). As later stated by Cooke and Michie (2010), "on the basis of empirical findings, statistical theory, and logic, it is clear that predictions of future offending cannot be achieved, with any degree of confidence, in the individual case" (p. 259) (see also Hart & Cooke 2013).

Since its first publication, the Hart et al thesis has been vigorously contested (Harris, Rice & Quinsey 2007). For example, Hanson and Howard (2010) state that the wide margin of error for individual risk assessments is a function of having only two possible outcomes (violent or not violent) and therefore conveys nothing about the predictive utility of a risk assessment tool. Because all violence risk assessment approaches, not just actuarial approaches, yield some estimate of the likelihood that a dichotomous outcome will occur, none are immune from Hart et al.'s argument (as Hart et al recognize). Indeed, their thesis "if true,... would be a serious challenge to the applicability of any empirically based risk procedure to any individual for anything" (Hanson & Howard 2010, p. 277).

Contrary to Hart et al, our view (Faigman, Monahan & Slobogin 2014; Faigman, Slobogin & Monahan in press; Monahan & Skeem 2014) is that group data theoretically can be, and in many areas empirically are, highly informative when making decisions about individual cases, including decisions about sentencing. Consider two examples from risk assessment in other areas. In the insurance industry, "until an individual insured is treated as a member of a group, it is impossible to know his expected loss, because for practical purposes that concept is a statistical one based on group probabilities. Without relying on such probabilities, it would be impossible to set a price for insurance coverage at all" (Abraham 1986, p. 79). In weather forecasting, "extensive statistical data are available on the average probability of the events [meteorologists] are estimating" and therefore when meteorologists "predict a 70 percent chance of rain, there is measurable precipitation just about 70 percent of the time" (National Research Council 1989, p. 46).

Mossman (2015, p. 99) uses a medical analogy, rather than one from insurance or meteorology: "Suppose a 50-year-old man learns that half of people with his diagnosis die in five

years. He would find this information very useful in deciding whether to purchase an annuity that would begin payouts only after he reached his 65th birthday."

> Similarly, if all one knew about an individual was his Static-99R score [Hanson, Babchishin, Helmus & Thornton 2013] and that he came from a population for which the Static-99R data and rates were relevant, the individual's Static-99R score would be the best and the only basis for making a probabilistic judgment about his future behavior. This is true even though many factors not considered by the Static-99R (e.g., employment status, substance use, and family relationships) affect a sex offender's likelihood of recidivism (p. 99).

The recent and meticulous critique of the Hart et al series of articles by two world-class statisticians finally may have laid this controversy to rest. Imrey and Dawid (2015) conclude that Hart et al's "technical statistical arguments against actuarial risk estimation are simply fallacious." In their view, the thesis of Hart, Michie, and Cooke

> misconceives the nature of actuarial risk estimation and the source of its espoused benefits. In principle, precise estimation of individual risk is not needed for ARAIs [i.e., Actuarial Risk Assessment Instruments], or any other risk assessment method, to provide great benefit. If groups of individuals with high and low propensities for violence recidivism can be distinguished, and courts act upon such distinctions, recidivism will decline to the extent that groups most prone to violence are incapacitated, and infringements upon those least so prone are minimized. And both society and offenders will be better served even if we cannot be sure, based on tight statistical intervals, from precisely which individual offenders this betterment derives.

Problem 3: Reducing risk is more difficult than assessing risk among adult offenders

Although a wealth of empirical guidance is available for *assessing* adult offenders' risk of recidivism, far less is available for *reducing* that risk. As explained earlier, risk factors known to be causal are in short supply: With the possible exception of substance abuse and criminal thinking patterns, there is no compelling evidence that changing particular risk factors reduces recidivism.

In truth, variable risk factors are the best point of reference the field has to offer for reducing risk. In a randomized controlled trial, Bonta et al. (2011) found that, compared to untrained probation officers, specially trained probation officers spent more time discussing variable risk factors with their probationers (e.g., criminal thinking patterns, antisocial associates), and their probationers were less likely to reoffend. This provides indirect support for the principle of targeting variable risk factors to reduce risk—but certainly does not specify which factors are causal. So the field is left with blunderbluss interventions aimed at a "variety of influences, some of which…dilute or divert from intervention effects that derive from changing causal risk factors" (Kraemer et al. 2001, p. 854).

If causal factors are in short supply, high quality adult correctional services are rare indeed. Based on a cohort of California prisoners, Petersilia and Weisberg (2010) found that substance abuse treatment (of any sort) was offered to ten percent of those with substance abuse problems, and basic anger control treatment was offered to one-quarter-of-one-percent of those with anger problems. "Evidence-based" treatment programs and principles are even more scarcely implemented in adult correctional settings (Lowenkamp, Latessa & Smith 2006).

Still, efforts are being made to turn the Titanic. As part of the evidence-based sentencing movement, agencies are taking systematic action to provide offenders with access to promising types of programming (Casey et al. 2011). For example, probation agencies are developing their

own treatment resources (e.g., cognitive-behavioral groups)—and using validated checklists to assess the extent to which community treatment providers adhere to known principles of effective correctional intervention. Creating infrastructure for risk reduction will be challenging, but necessary to realize any modicum of success.

Problem 4: Disparities potentially associated with the use of risk assessment in sentencing are a significant concern.

According to the most recent data from the Bureau of Justice Statistics (Carson 2014), young (i.e., 18-19 year old) black males are over nine times more likely than young white males to be imprisoned. As Frase (2013) has stated:

> Even when such disparity results from the application of seemingly appropriate, race-neutral sentencing criteria, it is still seen by many citizens as evidence of societal and criminal justice unfairness; such negative perceptions undermine the legitimacy of criminal laws and institutions of justice, making citizens less likely to obey the law and cooperate with law enforcement (p. 210).

The question here is whether the use of risk assessment in sentencing affects racial disparities in imprisonment. As noted earlier, Former Attorney General Eric Holder (2014) believes that it does: Although risk assessments "were crafted with the best of intentions, I am concerned that they may inadvertently undermine our efforts to ensure individualized and equal justice."

Whether risk assessment affects sentencing disparities is an important empirical question. Risk assessment could *exacerbate* sentencing disparities, as Holder hypothesizes. But risk assessment could also *reduce* or have *no effect* on disparities. Given findings in the general sentencing literature (Ullmer 2012), the effect of risk assessment on disparities is probably

conditioned on contextual factors. It may vary, for example, as a function of the baseline sentencing context and the instrument chosen. Consider each possibility in turn.

First, whether risk assessment exacerbates, ameliorates, or has no effect on disparities is a question anchored to the baseline sentencing context, i.e., risk assessment compared to what? Racial and socioeconomic disparities depend on where one is sentenced (Ullmer 2012), so—holding all else constant—the effect of risk assessment on disparities depends on what practices are being replaced. Although practices will vary, common denominators include (a) judges' intuitive and informal consideration of offenders' likelihood of recidivism, which is less transparent, consistent, and accurate than evidence-based risk assessment, and (b) sentencing guidelines that heavily rely on criminal history and have been shown to contribute heavily to racial disparities (Frase 2009).

Second, the effect of risk assessment on disparities may depend on the instrument chosen. On utilitarian grounds alone, any instrument used to inform sentencing must be shown to predict recidivism with similar accuracy across groups. That is, the instrument empirically must be free of *predictive bias* (in statistical terms, race must not moderate the instrument's predictive utility). However, given a pool of instruments that are free of predictive bias, some instruments will yield greater mean score differences between groups than others (Skeem & Lowenkamp 2015). Although such instruments with greater group differences are not biased, their use at sentencing arguably will have greater *disparate impact* (in legal terms) or inequitable social consequences (in moral terms; Reynolds & Suzuki 2012).

In short, much more research is needed to define the conditions under which risk assessment affects sentencing disparities. Studies can determine, for example, how strongly different instruments correlate with race, which risk factors drive that correlation, and what (if

anything) can be done to reduce the correlation without compromising predictive utility (Lowenkamp & Skeem 2015). Guidance is available from similar efforts undertaken in related fields (e.g., tests of differential item functioning by racial groups for cognitive tests used in education, Reynolds 2000). If policymakers blindly eradicate risk factors from a tool because they are contentious, they risk reducing predictive utility *and* exacerbating the racial disparities they seek to ameliorate. It may be politically tempting, for example, to focus a tool tightly on criminal history because this variable is associated with perceptions of blameworthiness, and is also easily assessed by referring to conviction records. But risk estimates based on a broader set of factors predict recidivism better than criminal history and tend to be less correlated with race (Berk 2009; Skeem & Lowenkamp 2015). They also provide more points of reference for risk reduction efforts.

CONCLUSION

The past several years have seen a remarkable surge of interest in the use of risk assessment in criminal sentencing (Hamilton 2015 (a), (b). Political advocates who agree on little else have coalesced in proposing that the way to unwind mass incarceration in America without jeopardizing the country's historically low crime rate is to make risk assessment much more prominent in sentencing criminal offenders. Several pioneering states have already incorporated risk assessment in sentencing for some or all convicted offenders. Many other states and the federal government are actively debating whether they, too, should implement what is increasingly being referred to as "evidence-based sentencing." As these debates ensue, the questions underscored in this chapter will be front and center: Which predictively-valid risk factors are morally and legally acceptable to include in risk assessment instruments? When

should those instruments be administered to convicted offenders? How can the criminal justice system promote the reduction of risk and not merely its assessment? Will a revived emphasis on recidivism risk exacerbate, ameliorate, or leave unaffected the enormous racial and economic disparities that have long characterized the American penal system? Our hope is that psychological science can play a major advisory role at what may be a historic crossroad in American sentencing policy.

SUMMARY POINTS

1. The need to unwind mass incarceration without jeopardizing public safety is fueling interest in the use of risk assessment to inform sentencing. Across the U.S., states are using risk assessment to inform decisions about the imprisonment of higher-risk offenders, the supervised release of lower-risk offenders, and the treatment of offenders in efforts to reduce risk.
2. Risk assessment is relevant to utilitarian (crime control)—but not retributive (just deserts)—sentencing concerns. Ideally, retributive concerns set a permissible range for the sentence, and risk assessment is used to select a particular sentence within that range. Risk assessment should not be used to sentence offenders to more time than they morally deserve.
3. The retributive task of assigning blame for past crime and the utilitarian task of assessing risk for a future crime are orthogonal. It is difficult to integrate these orthogonal concerns to determine an offender's sentence when a given factor bears on only one concern (e.g., male gender increases risk, but not blameworthiness) *or* bears on both concerns in opposite directions (e.g., combat-induced trauma *both* increases risk and can mitigate

blameworthiness). Perceptions of blameworthiness constrain the risk factors perceived as appropriate to consider at sentencing.

4. Clear conceptualizations and precise terminology are needed to advance the use of risk assessment at sentencing. We provide operational definitions for specific types of risk, promotive, and proxy factors. Our analysis indicates that there is much more empirical direction for assessing risk than for reducing risk. Risk factors known to be *causal* are in short supply.
5. A significant concern is whether the use of risk assessment will exacerbate, mitigate, or have no effect on racial disparities in imprisonment. The answer to this question may vary with the baseline sentencing context (i.e., risk assessment compared to what?) and the instrument chosen (i.e., degree of predictive bias or disparate impact).
6. Group data are informative when making sentencing decisions about individual cases.
7. Although validated risk assessment instruments vary in their purpose and structure, they have similar levels of accuracy in predicting recidivism. Given a pool of instruments that are well-validated for the groups to which an individual belongs, the choice among them for use in sentencing should be driven by the ultimate purpose of the evaluation (i.e., risk assessment vs. risk reduction) and the principle of fairness (i.e., degree of predictive bias or disparate impact).

ACKNOWLEDGMENTS

The authors are grateful to Kimberly Kessler Ferzan and Cynthia Kempinen for their insightful comments.

Table 1: Four Types of Risk Factors		
Type of Risk Factor	**Definition**	**Example**
Fixed marker	Unchangeable	Gender
Variable marker	Unchangeable by intervention	Age
Variable risk factor	Changeable by intervention	Employment status
Causal risk factor	Changeable by intervention; when changed, reduces recidivism	Substance abuse

(Source: Adapted from Kraemer et al. 1997 and Monahan & Skeem 2014)

LITERATURE CITED

Abraham KS. 1986. *Distributing Risk: Insurance, Legal Theory, and Public Policy*. New Haven: Yale University Press

American Law Institute. 2011. *Model Penal Code: Sentencing (Tentative Draft No. 2).* Philadelphia: American Law Institute

American Law Institute. 2014. *Model Penal Code: Sentencing (Tentative Draft No. 3).* Philadelphia: American Law Institute

Andrews DA, Bonta J 1995. *Levels of Service Inventory-Revised Manual.* Toronto, ON: MHS Inc.

Andrews DA, Bonta J, Wormith SJ. 2006. The recent past and near future of risk/need assessment. *Crime & Delinquency* 52: 7–27

Arnold J, Arnold L. 2015. Fixing justice in America. *Politico Magazine.* http://www.politico.com/magazine/story/2015/03/criminal-justice-reform-coalition-for-public-safety-116057.html

Berk R. 2009. The role of race in forecasts of violent crime. *Race and Social Problems* 1: 231-242

Bliesener T, Beelmann A, Stemmler M. 2011. Protective and promotive factors in the development of offending. In *Antisocial Behavior and Crime: Contributions of Developmental and Evaluation Research to Prevention and Intervention,* ed. DP Farrington, MM Ttoft, pp. 71–88. Cambridge, MA: Hogrefe Publishing

Blumstein A. 1993. Racial disproportionality of U. S. prison populations revisited. *University of Colorado Law Review* 64: 743-760

Blumstein A, Cohen J, Roth JA, Visher CA. 1986. *Criminal Careers and "Career Criminals."* Washington, DC: National Academy Press

Bonta J, Bourgon G, Rugge T, Scott TL, Yessine AK, Gutierrez L, Li J. 2011. An experimental demonstration of training probation officers in evidence-based community supervision. *Criminal Justice and Behavior* 38: 1127-1148

Bonta J, Law M, Hanson K. 1998. The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin* 123: 123-142

Campbell MA, French S, Gendreau P. 2009. The prediction of violence in adult offenders: A meta-analytic comparison of instruments and methods of assessment. *Criminal Justice and Behavior* 36: 567-590

Carson E. 2014. Prisoners in 2013. Washington, DC: Bureau of Justice Statistics

Casey PM, Warren RK, Elek JK. 2011. *Using offender risk and needs assessment information at sentencing: Guidance for courts from a national working group.* Available at: http://www.ncsc.org/~/media/Microsites/Files/CSI/RNA%20Guide%20Final.ashx

Cohen, TH, VanBenschoten SW. 2014. Does the risk of recidivism for supervised offenders improve over time: Examining changes in the dynamic risk characteristics for offenders under federal supervision. *Federal Probation* 78: 41-54

Coid JW, Yang M, Ullrich S, Zhang T, Sizmur S, Farrington D, Rogers R. 2011. Most items in structured risk assessment instruments do not predict violence. *The Journal of Forensic Psychiatry & Psychology* 22: 3-21

Cooke DJ, Michie C. 2010. Limitations of diagnostic precision and predictive utility in the individual case: A challenge for forensic practice. *Law and Human Behavior* 34: 259-264

Cullen, FT, Jonson CL, & Nagin DS. 2011. Prisons do not reduce recidivism: The high cost of ignoring science. *The Prison Journal* 91: 48S–65S

Desmarais SL, Johnson KL, & Singh JP. 2015. Performance of recidivism risk assessment instruments in U.S. correctional settings. Manuscript under review.

Durose M, Cooper A, Snyder H. 2014. *Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005 to 2010.* Washington, D.C.: Bureau of Justice Statistics

Dvoskin JA, Skeem JL, Novaco RW, Douglas KS. ed. *Applying Social Science to Reduce Violent Offending*. New York: Oxford University Press

Elbogen EB, Johnson SC, Wagner HR, Sullivan C, Taft CT, Beckham JC. 2014. Violent behaviour and post-traumatic stress disorder in US Iraq and Afghanistan veterans. *British Journal of Psychiatry* 204: 368-75

Faigman DL, Monahan J, Slobogin C. 2014. Group to individual (G2i) inference in scientific expert testimony. *University of Chicago Law Review* 81: 417-480

Faigman DL, Slobogin C, Monahan J. In press. Gatekeeping science: Using the structure of scientific research to distinguish between admissibility and weight in expert testimony. *Northwestern University Law Review*

Farrar-Owens M. 2013. The evolution of sentencing guidelines in Virginia: An example of the importance of standardized and automated felony sentencing data. *Federal Sentencing Reporter* 25: 168-170

Federal Bureau of Investigation. 2014. *Crime in the United States 2013.*Washington, DC.: Federal Bureau of Investigation

Ernberg I. 2012. Cancer. In *Handbook of Clinical Gender Medicine,* ed. K Schenck-Gustaffsson, P DeCola, D Pfaff, D Pisetsky, pp. 238-251. Basel, Switzerland: Karger

Farrington DP, Loeber R, Ttofi MM. 2012. Risk and protective factors for offending. In *The Oxford Handbook of Crime Prevention*, ed BC Welsh, DP Farrington, pp. 46-69. New York: Oxford

Frase RS. 2002. Limiting retributivism. In *The Future of Imprisonment*, ed. M. Tonry, pp. 83-119. New York; Oxford University Press

Frase RS. 2009. What explains persistent racial disproportionality in Minnesota's prison and jail populations? *Crime and Justice* 38: 201-280

Frase RS. 2013. *Just Sentencing: Principles and Procedures for a Workable System.* New York: Oxford University Press

Frase RS. 2014. Recurring policy issues of guidelines (and non-guidelines) sentencing: Risk assessments, criminal history enhancements, and the enforcement of release conditions. *Federal Sentencing Reporter* 26: 145-157

Greiner LE, Law MA, Brown SL. 2015. Using dynamic factors to predict recidivism among women: A four-wave prospective study. *Criminal Justice and Behavior* 42: 457-480

Gottfredson SD, Moriarty LJ. 2006. Statistical risk assessment: Old problems and new applications. *Crime & Delinquency* 52: 178-200

Guy LS, Kusaj C, Packer IK, Douglas KS. 2014. Influence of the HCR-20, LS/CMI, and PCL-R on decisions about parole suitability among lifers. *Law & Human Behavior* 39: 232-243

Hamilton M. 2015 (a). Risk-needs assessment: Constitutional and ethical challenges. *American Criminal Law Review* 52: 231-291

Hamilton, M. 2015 (b). Adventures in risk: Predicting violent and sexual recidivism in sentencing law. *Arizona State Law Journal* 47: 1-62

Hanson KR, Howard PD. 2010. Individual confidence intervals do not inform decision-makers about the accuracy of risk assessment evaluations. *Law and Human Behavior* 34: 275–281

Hanson RK, Babchishin LM, Helmus L, Thornton D. 2013. Quantifying the relative risk of sex offenders: Risk ratios for Static-99R. *Sexual Abuse: A Journal of Research and Treatment* 25: 482-515

Harcourt BE. 2015. Risk as a proxy for race: The dangers of risk assessment. *Federal Sentencing Reporter* 27: 237-243

Harris GT, Rice ME, Quinsey VL. 2008. Shall evidence-based risk assessment be abandoned? *British Journal of Psychiatry* 192:154

Hart, SD, Cooke DJ. 2013.Another look at the (im-)precision of individual risk estimates made using actuarial risk assessment instruments. *Behavioral Sciences & the Law* 31: 81-102

Hart, SD, Michie C, Cooke DJ. 2007. Precision of actuarial risk assessment instruments: Evaluating the margins of error of group v. individual predictions of violence. *The British Journal of Psychiatry* 190: s60-s65

Heilbrun K, Hart A, Green H. 2009. Risk assessment in evidence-based sentencing: Context and promising uses. *Chapman Journal of Criminal Justice* 1: 127-143

Holder, E. 2014. Attorney General Eric Holder Speaks at the National Association of Criminal Defense Lawyers 57th Annual Meeting. Available at: http://www.justice.gov/opa/speech/attorney-general-eric-holder-speaks-national-association-criminal-defense-lawyers-57th

Howard PD, Dixon L. 2013. Identifying change in the likelihood of violent recidivism: Causal dynamic risk factors in the OASys violence predictor. *Law and Human Behavior* 37: 163-174.

Imrey PB, Dawid AP. 2015. A commentary on statistical assessment of violence recidivism risk. *Statistics and Public Policy*. .Available at http://dx.doi.org/10.1080/2330443X.2015.1029338

International Centre for Prison Studies. (2013). *World Prison Brief*. Available at http://www.prisonstudies.org/world-prison-brief

Jones, NJ, Brown SL, Zamble, E. 2010. Predicting criminal recidivism in adult male offenders: Researcher versus parole officer assessment of dynamic risk. *Criminal Justice & Behavior* 3: 860-882

Jones NJ, Brown SL, Robinson D, Frey D. 2015. Incorporating strengths into quantitative assessments of criminal risk for adult offenders: The Service Planning Instrument. *Criminal Justice and Behavior* 42: 321-338

Kansas Sentencing Commission. 2015. *Justice Reinvestment Initiative in Kansas.* http://www.sentencing.ks.gov/docs/default-source/publications-reports-and-presentations/ksc_jri_report.pdf?sfvrsn=2

Kraemer HC. 2003. Current concepts of risk in psychiatric disorders. *Current Opinion in Psychiatry* 16: 421-430

Kraemer H C, Kazdin AE, Offord DR, Kessler RC, Jensen PS, Kupfer DJ. 1997. Coming to terms with the terms of risk. *Archives of General Psychiatry* 54: 337-343

Kraemer HC, Stice E, Kazdin A, Offord D, Kupfer D. 2001. How do risk factors work together? Mediators, moderators, and independent, overlapping, and proxy risk factors. *American Journal of Psychiatry* 158:848–856

Kroner DG, Mills JF, Reddon JR. 2005. A coffee can, factor analysis, and prediction of antisocial behavior: The structure of criminal risk. *International Journal of Law & Psychiatry* 28: 60-374

Kroner DG, Yessine AK. 2013. Changing risk factors that impact recidivism: In search of mechanisms of change. *Law and Human Behavior* 37: 321-336

Larkin PJ. 2014. Managing prisons by the numbers: Using the good-time laws and risk-needs assessments to manage the federal prison population. *Harvard Journal of Law and Public Policy* 1: 1-29

Lawrence A. 2009. *Cutting Corrections Costs: Earned Time Policies for State Prisoners.* Denver: National Conference of State Legislatures http://www.ncsl.org/documents/cj/earned_time_report.pdf s

Lawrence A. 2013. *Trends in Sentencing and Corrections: State Legislation.* Denver: National Conference of State Legislatures http://www.ncsl.org/Documents/CJ/TrendsInSentencingAndCorrections.pdf

Levin B, Hennessey K, Petrila J. ed. 2010. *Mental Health Services: A Public Health Perspective,* 3rd ed. New York: Oxford University Press

Lowenkamp CT, Latessa EJ, Holsinger AM 2006. The risk principle in action: What have we learned from 13,676 offenders and 97 correctional programs? *Crime & Delinquency* 52: 77-93

Lowenkamp C, Latessa E, Smith P. 2006. Does correctional program quality really matter? The impact of adhering to the principles of effective intervention. *Federal Probation* 5: 201-220

Masten AS. 2014. *Ordinary magic: Resilience in development.* New York: Guilford Press

Melton, GB, Petrila J, Poythress NG, Slobogin C. 2007. *Psychological Evaluations for the Courts: A Handbook for Mental Health Professionals and Lawyers* (3rd ed.). New York: Guilford Press

Monahan J. 2006. A jurisprudence of risk assessment: Forecasting harm among prisoners, predators, and patients. *Virginia Law Review* 92: 391-435

Monahan J, Skeem JL. 2014. Risk redux: The resurgence of risk assessment in criminal sanctioning. *Federal Sentencing Reporter* 26: 158-166

Morris N. 1974. *The Future of Imprisonment*. Chicago: University of Chicago Press

Morse SJ. 2015. Genetics and criminal justice. In *The Oxford Handbook of Molecular Psychology*, ed. T. Canli, p. 409-425. New York: Oxford University Press

Mossman D. 2015. From group data to useful probabilities: the relevance of actuarial risk assessment in individual instances. *Journal of the American Academy of Psychiatry and the Law* 43: 93-102

National Conference of State Legislatures. 2015. *State Sentencing and Corrections Legislation.* http://www.ncsl.org/research/civil-and-criminal-justice/state-sentencing-and-corrections-legislation.aspx

National Research Council, 1989. *Improving Risk Communication*. Washington DC: National Academy Press

Offord DR, Kraemer HC. 2000. Risk factors and prevention. *Evidence Based Mental Health* 3: 70-71

Pennsylvania Commission on Sentencing. 2011. *Risk/needs assessment project: Review of factors used in risk assessment instruments*. http://pcs.la.psu.edu/publications-and-research/research-and-evaluation-reports/risk-assessment/interim-report-1-review-of-factors-used-in-risk-assessment-instruments/view

Petersilia J. 2011. Parole and prisoner re-entry. In *The Oxford Handbook of Crime and Criminal Justice*, ed. M Tonry, pp. 925-952. New York: Oxford University Press

Reitz KR. 2011. Sentencing. In *Crime and Public Policy*, ed. JQ Wilson, J Petersilia, pp. 467-498. New York: Oxford University Press

Reynolds CR. 2000. Methods for detecting and evaluating cultural bias in neuropsychological tests. In *Handbook of Cross-Cultural Neuropsychology*, ed E Fletcher-Janzen, T Strickland, CR Reynolds, pp. 249-285. New York: Springer.

Reynolds CR, Suzuki LA. 2012. Bias in psychological assessment: An empirical review and recommendations. In *Handbook of Psychology Vol 10, Assessment Psychology (2nd ed)*, ed. IB Weiner, JR Graham, JA Naglieri, pp. 82-113

Rhine EE. 2012.The present status and future prospects of parole boards and parole supervision. In *The Oxford Handbook of Sentencing and Corrections*, ed. J Petersilia, KR Reitz, pp. 627-656. New York: Oxford University Press

Rice ME, Harris GT. 2005. Comparing effect sizes in follow-up studies: ROC Area, Cohen's d, and r. *Law & Human Behavior* 29: 615-620

Rice ME, Harris GT, Lang C. 2013. Validation of and revision to the VRAG and SORAG: The Violence Risk Appraisal Guide—Revised (VRAG-R). *Psychological Assessment* 25: 951-965

Roberts JV, Yalincak OH. 2014. Revisiting prior record enhancement provisions in state sentencing guidelines. *Federal Sentencing Reporter* 26: 177-190

Roberts JV, von Hirsch A. ed. 2010. *Previous Convictions at Sentencing: Theoretical and Applied Perspectives.* Portland, OR: Hart Publishing

Robinson P. 2013. *Intuitions of Justice and the Utility of Desert*. New York: Oxford University Press

Sabol WJ, West H C, Cooper M. 2009. *Prisoners in 2008*. Washington, DC: Bureau of Justice Statistics

SAFE Justice Reinvestment Act of 2015, HR 2944, 114th Cong., 2nd sess. https://www.congress.gov/bill/114th-congress/house-bill/2944

Scurich N, Monahan J. In press. Evidence-based sentencing: Public openness and opposition to using gender, age, and race as risk factors for recidivism. Law and Human Behavior

Simon J. 2007. Rise of the carceral state. *Social Research* 74: 471-508

Serin R, Lloyd C, Hanby L. 2010. Enhancing offender re-entry: An integrated model for enhancing offender re-entry. *European Journal of Probation* 2: 53-75

Skeem JL, Monahan J. 2011. Current directions in violence risk assessment. *Current Directions in Psychological Science* 20: 38-42

Skeem JL, Mulvey EP. 2002. Assessing the risk of violence posed by mentally disordered offenders being treated in the community. In *Care of the Mentally Disordered Offender in the Community* ed. A Buchanan, pp. 111-142. New York: Oxford

Slobogin C. 2011. Prevention as the primary goal of sentencing: The modern case for indeterminate dispositions in criminal cases. *San Diego Law Review* 48: 1127-1172

Slobogin C, Brinkley-Rubinstein L. 2013. Putting desert in its place. *Stanford Law Review* 65: 77-135

State of Washington Department of Corrections. 2015. *Earned Release Time (Policy #350.100)* www.doc.wa.gov/policies/showFile.aspx?name=350100

Subramanian R, Moreno R, Broomhead S. 2014. *Recalibrating Justice: A Review of 2013 State Sentencing and Corrections Trends.* New York: Vera Institute of Justice http://www.vera.org/sites/default/files/resources/downloads/state-sentencing-and-corrections-trends-2013-v2.pdf

Starr SB. 2014. Evidence-based sentencing and the scientific rationalization of discrimination. *Stanford Law Review* 66: 803-872

Starr SB. 2015. The new profiling: Why punishing based on poverty and identity is unconstitutional and wrong. *Federal Sentencing Reporter* 27: 229-236

Tanner-Smith E, Wilson S, Lipsey M. 2013. Risk factors and crime. In *The Oxford Handbook of Criminological Theory*. ed. F Cullen, P Wilcox, pp. 89-111. New York: Oxford University Press

Tonry M. 2013. Sentencing in America, 1975-2025. In *Crime and Justice in America, 1975-2025*. ed. M Tonry, pp. 141-198. Chicago: University of Chicago Press

Tonry M. 2014. Legal and ethical issues in the prediction of recidivism. *Federal Sentencing Reporter* 26: 167-176

Travis J, Western B, Redburn S. 2014. *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. Washington, D.C.: National Academies Press

Turner S, Hess J, Jannetta J. 2009. *Development of the California Static Risk Assessment Instrument (CSRA)*. UCI Center for Evidence-Based Corrections Working Paper

Ulmer JT. 2012. Recent developments and new directions in sentencing research. *Justice Quarterly* 29: 1-40

Ullrich S., Coid J. 2011. Protective factors for violence among released prisoners—Effects over time and interactions with static risk. *Journal of Consulting & Clinical Psychology* 79: 381-390

United States Sentencing Commission (2010). Sentencing Guidelines. Washington DC: United States Sentencing Commission

Utah Sentencing Commission. 2014. *2014 Adult Sentencing and Release Guidelines.* *http://www.sentencing.utah.gov/Guidelines/Adult/2014%20Adult%20Sentencing%20and%20Release%20final.pdf*

Utah Sentencing Commission. 2014. *2014 Annual Report.* *http://www.sentencing.utah.gov/AnnualReports/Sentencing2014.pdf*

Virginia Criminal Sentencing Commission. 2014. *2014 Annual Report.* *http://www.vcsc.virginia.gov/2014AnnualReport.pdf*

von Hirsch A. 1976. *Doing Justice: The Choice of Punishments*. New York: Basic Books

Wrobleswki J. 2014. *2014 US Department of Justice Criminal Division Annual Letter to US Sentencing Commission* http://www.justice.gov/sites/default/files/criminal/legacy/2014/08/01/2014annual-letter-final-072814.pdf

Yang M, Wong SC, Coid J. 2010. The efficacy of violence prediction: A meta-analytic comparison of nine risk assessment tools. *Psychological Bulletin* 136: 740-767

Zimring F. 2012. *The City that Became Safe: New York's Lessons for Urban Crime and its Control*. New York: Oxford University Press

SIDEBAR: THE PENNSYLVANIA COMMISSION ON SENTENCING

[Note: Typeset near the heading, "Risk Assessment in State Sentencing," in the text above]

The most carefully documented work on risk assessment in sentencing has been done by the Pennsylvania Commission on Sentencing. The Commission developed an initial Risk Scale for select offenders (i.e., those convicted of offenses of medium severity) that consisted of eight risk factors. The factors (with scoring in parentheses) were: (1) gender (female = 0; male = 1); (2) age (less than 24 years = 3; 24-29 = 2; 30-49 = 1; 50+ = 0); (3) county (rural counties = 0; smaller urban counties = 1; Allegheny and Philadelphia counties = 2); (4) total number of prior arrests (0 arrests = 0; 1 = 1; 2 to 4 = 2; 5 to 12 = 3; 13+ = 4); (5) prior property arrests (no = 0; yes = 1); (6) prior drug arrests (no = 0; yes = 1); (7) current property offender (no = 0; yes = 1); (8) Offense Gravity Score (4+ = 0; 1 to 3 = 1; note that *more* serious offenses, such as aggravated assault, are scored 0, and *less* serious offenses, such as writing bad checks, are scored 1).

The Commission validated the Risk Scale on two samples of offenders (combined N=44,377). In these samples, 12% of offenders scored in the "low risk" range (i.e., total scores=0-4) and 88% did not (i.e., total scores=5-14). Recidivism was defined re-arrest for any crime within 3 years of release. Of offenders designated "low risk," 22% recidivated—compared to 56% of non-"low risk" offenders.

In June, 2015, the Commission decided to exclude "county" as a factor on the Risk Scale. The Commission is now developing nine separate risk assessment scales for offenders with differing degrees of offense severity. The incorporation of risk assessment in criminal sentencing in Pennsylvania is still pending. Reports are available at http://pcs.la.psu.edu/publications-and-research/research-and-evaluation-reports/risk-assessment/