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Reform in Motion: The Promise and Perils of Incorporating Risk Assessments and Cost-Benefit Analysis into Pennsylvania Sentencing

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Reform in Motion:
The Promise and Perils of Incorporating Risk Assessments and Cost-Benefit Analysis into Pennsylvania Sentencing

Jordan M. Hyatt,1 Steven L. Chanenson² & Mark H. Bergstrom³

I. INTRODUCTION ............................................................. 708
II. PRISON POPULATION: A KEYSTONE PROBLEM .......... 710
III. PENNSYLVANIA PURPOSES ........................................... 714
IV. PENNSYLVANIA’S CURRENT SENTENCING STRUCTURE ............................................. 715
V. INDETERMINATE STRUCTURED SENTENCING: A COORDINATED APPROACH ................ 718
VI. 2008 LEGISLATIVE REFORMS: RESHAPING SENTENCING IN PENNSYLVANIA .................. 720
VII. RISK: THE BASICS .................................................. 724
VIII. THE PROMISE OF RISK ASSESSMENT ......................... 730
IX. RISK ASSESSMENT IN PENNSYLVANIA: THE NEXT FRONTIER ......................................... 733
X. PAYING THE PIPER: COST-BENEFIT ANALYSIS .......... 736
   A. Cost-benefit Analysis: The Basics .............................. 737
   B. Bringing Cost-Benefit Analysis to Pennsylvania ........... 740
XI. BRINGING IT ALL TOGETHER: FOUR KEY QUESTIONS FOR PENNSYLVANIA ................... 742
XII. CONCLUSION .............................................................. 748

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I. INTRODUCTION

Prison overcrowding has once again returned to the national headlines. Ultimately, risk assessment and cost-benefit analysis may prove to be important tools to help ameliorate or avoid this problem. The use of these tools at sentencing (whether at the policy or the case level) remains, at best, a set of emerging strategies; many unresolved questions abound. Yet this brave new world of sentencing offers the promise of a more rational system that may allow us to administer criminal justice with a renewed focus on public safety and within our fiscal means.

The story of prison populations at the dawn of this century's second decade is a multifaceted one with some states enduring significant over-crowding while others are enjoying their first population declines in recent memory. Quite simply, not all prisons are packed; some of those that are, however, may be ready to burst.

California is an instructive and extreme example of the impact of prison overcrowding. The Supreme Court, wading into the contentious debate regarding the conditions of the California prison system, has held that the state must drastically reduce the number of individuals incarcerated. The decision was precipitated by, as noted in the majority, the State not providing constitutionally acceptable levels of healthcare for its inmates. By upholding the 2009 decision of a specially convened judicial panel, the Court affirmed that, because overcrowding was a primary factor in the failure to provide care, the state prison system population must be capped at 137 percent of the stated maximum.

As a result of the ruling, California has two years to lower the system-wide population to 110,000 inmates, an amount that will require the release of almost 33,000 individuals from state custody. Reactions have not been muted. According to some, including Carter G. Phillips, the attorney for the state, "there is going to be more crime and people are going to die on the streets of Califor-

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6. Id. at 1944.
nia.” Justice Scalia, in his dissent in Brown, agreed. He called the decision "perhaps the most radical injunction issued by a court in our Nation's history" that the decision would result in the release of a "staggering number" of convicted felons. These felons, he goes on to say, "will undoubtedly be fine physical specimens who have developed intimidating muscles pumping iron in the prison gym." Justice Alito “fear[ed] that [the Court’s] decision, like prior prisoner release orders, [would] lead to a grim roster of victims.”

Faced with the pressing, and Court-mandated, need to release select offenders from incarceration, California has considered diverting low-risk offenders into county facilities and releasing inmates who are least likely to reoffend violently. Regardless of how they choose to proceed, California’s policymakers will not have to make uninformed decisions. Risk assessment is one potential tool upon which policymakers can rely to navigate the murky waters of criminal justice systems under severe fiscal—and perhaps legal—pressures. As Justice Kennedy notes, even when there are significant public safety concerns, prison populations can be reduced in a way that does not dramatically increase crime or endanger the public.

While not in the same dire straits as California in terms absolute numbers or percentage over rated capacity, Pennsylvania is facing its own significant problems with prison overcrowding. This article provides a window into the Pennsylvania experience—dealing with both prisons and policies. It starts with a discussion of the prison population, purposes of sentencing, and current sentencing structure. It then addresses the legislature’s broad vision for the reform legislation enacted in 2008 (Acts 81 and 83) and in 2010 (Act 95), which provide an opportunity to change course, to put in place a more coordinated and sustainable system that focuses on public safety while addressing resource utilization. As part of the reform legislation, the General Assembly directed that

9. Id. at 1953.
the Pennsylvania Commission on Sentencing adopt new guidelines for sentencing, re-sentencing, parole and recommitment, and to consider risk of re-offense and resource utilization when developing these guidelines. Thus, the article examines two key areas of the Commission's new duties: the development of a risk assessment instrument for incorporation into the sentencing guidelines; and the development of a capacity for cost-benefit analyses to better measure resource utilization and outcomes of existing and proposed guidelines and programs. Ultimately, the article presents and considers four policy challenges that must be resolved before these policies may move forward.

II. PRISON POPULATION: A KEYSTONE PROBLEM

Although prison populations have dropped nationwide, Pennsylvania is not one of the twenty-six states that reported significant reductions in incarceration. In fact, according to a 2010 Pew Center on the States study, Pennsylvania recently earned the dubious distinction as the state with the greatest absolute increase in prison population (2,122 additional inmates) and with the fourth highest rate of overall increase (4.3%). The growth in Pennsylvania's corrections population has reached a critical tipping point, requiring the housing of inmates out-of-state and in county facilities, as well as the planned construction of two new prisons.

As of July 31, 2011, the Pennsylvania Department of Corrections (DOC) total institutional population was 51,356, or 116.2% of its operational bed capacity of 44,198. Of these offenders, 49,733 inmates were in DOC custody, while the remaining 1,623 were housed in federal, county or out-of-state facilities. In addition to safety concerns created by persistent overcrowding within the Commonwealth's institutions, both for inmates and staff, the

15. Id.
costs of corrections continues to increase at an unsustainable rate. As Pennsylvania's Secretary of Corrections John Wetzel recently noted, "The fact that our budget is $1.86 billion has a lot of people rethinking some of the assumptions we've made in the past. When we over-incarcerate individuals—and there is a portion of our population that we over-incarcerate—we're not improving public safety. Quite the opposite."\(^{18}\)

Absent reform, Pennsylvania could be faced with a dangerous fiscal problem in the not-too-distant future. During the 2010-2011 fiscal year, $1,987,808,000 was allocated for state-level incarceration and supervision of offenders (Department of Corrections, $1,867,230,000; Board of Probation & Parole (PBPP or Board), $120,578,000).\(^{19}\) Although the recently enacted General Fund budget contains substantial cuts in many areas, state-level corrections-related costs increased to $1,993,857,000 (DOC, $1,867,022,000; PBPP, $126,835,000).\(^{20}\) These amounts far exceed the amount of money spent or allocated for higher education. As the Budget Office notes, this budget represents an overall "decrease of $1.17 billion, or 4.1 percent, from 2010-11," but the cuts were not evenly distributed, as "[t]he budget increases total funding for the Department of Corrections and the Board of Probation and Parole,"\(^{21}\) in keeping with recent trends. In 1987, the ratio of dollars spent on corrections to education generally was only .20. By 2007, that ratio had grown to .81.\(^{22}\) Given the current levels of funding for the penal system, and the proposed increases, this ratio likely will continue to grow in the near, and possibly extended, future.

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20. Id.


Though not as staggering as the California predicament, Pennsylvania is also facing a crisis that, given these rates of sustained fiscal growth, cannot be accommodated though yearly increases in system-wide funding. A number of factors have contributed to the sustained increase in state prison populations, not the least of which was the lingering impact of a two-month parole moratorium in late 2008, a post-moratorium reduction in the parole rate from 62% to 37.5% with a suppressed parole rate for much of 2009, and parole violations accounting for 28% of DOC admissions. In some sense, however, considering the back-end mechanics of the population increase can only inform part of a solution; a change in perspective on the front-end is also required.

While admissions for new sentences also increased in recent years, this was primarily related to an increase in the number of sentences imposed. Between 1990 and 2008, the total number of sentences imposed increased by nearly 70%, while the percentage of all sentences receiving a term of incarceration (jail and prison) dropped from 60% to 44%. This reduction in the reliance on incarceration was brought about through the development of community-based sentencing alternatives (e.g., county intermediate punishment programs, such as house arrest, electronic monitoring, and drug treatment) along with modifications to the sentencing guidelines to promote greater use of these alternatives in lieu of county jail. During the past decade, the percentage of cases committed to state prison held steady at 14% of all sentences, although a greater portion of cases committed involved drug-related offenses. And, while the average minimum and maximum sentences have fluctuated, they remain at or below earlier levels, due in part to the shorter sentences for drug related offenses offsetting the higher sentences for violent and repeat offenders.

During the past two years, new admissions to the DOC should have declined due to a reduction in the overall number of sentences imposed by the Commonwealth’s courts. Reported sentences

26. Id.
dropped from a high of 145,915 in 2008 to 142,221 in 2009;\(^{27}\) preliminary data for 2010 suggests reported sentences on par with 2009 levels.\(^ {28}\) However, during this same period, a change in sentencing patterns, linked to the 2008 reforms, began to emerge, offsetting anticipated reductions in admissions. Notably, state sentences previously ordered to be served in county facilities were being served instead in state facilities. During 2009, courts ordered approximately 1,200 state offenders to serve their sentences in county facilities;\(^ {29}\) by 2010, this dropped to 900 offenders. Effective November 24, 2011, only in exceptional cases will courts be authorized to order state sentences to be served in county facilities, resulting in an even more significant shift of offenders to DOC custody.\(^ {30}\) Should the sentencing trends return to previous rates, where more than 3,000 additional sentences were added each year, DOC admissions will climb even higher. Absent substantial changes in sentencing and parole guidelines to shift low risk and less serious offenders from state custody, the system-wide population has the potential to approach unmanageable levels.

It is widely believed that a large number of offenders confined in state facilities could be diverted safely to other programs or institutions. During 2008, nearly 1,500 offenders recommended exclusively under the sentencing guidelines for community-based or county jail sentences, and more than 4,000 additional offenders for whom the guideline recommendations included community-based or county jail sentences, received state prison sentences.\(^ {31}\) Among those receiving state prison sentences, only 25% of the 6,081 eligible offenders for state intermediate punishment, since its establishment in mid-2005, have been admitted to the program.\(^ {32}\) Consideration of risk at the time of sentencing is intended to assist courts in identifying non-violent offenders at these levels who are appropriate for diversion from prison or a reduction in duration of sentence. The ability to generate accurate assessments that can be systematically used in the sentencing courtroom will represent an improvement over current practices. Accomplishing this re-

\(^{27}\) Id.
\(^{29}\) Id.
\(^{31}\) Pennsylvania Commission on Sentencing, Internal staff analysis. (2011)
quires the integration of risk into the current sentencing schemes in the state.

III. PENNSYLVANIA PURPOSES

Empirical, scientific evidence, though used in many criminal justice contexts, has remained a largely untapped resource in the sentencing and parole decision-making processes. However, as fundamental philosophies underlying both the sentencing hierarchy and the culture surrounding the use of analytical evidence have evolved, so too has the demand for evidence-based practices. The use of evidence, quite obviously, is not a foreign concept within criminal sentencing. In Pennsylvania, simply considering risk or other actuarial information at sentencing represents a departure from customary approaches to punishment. A reliance on empirical support for sentencing decisions does not, however, need to undermine the philosophical foundations of the current system. Rather, actuarial evidence can work with existing strategies—and within existing limits—to bring sentencing practices more in line with their stated purposes.

For many years, the prevailing sentencing ideology in Pennsylvania has been based on a retributive philosophy; the guidelines, when first drafted, were enacted to reinforce the 'just desserts' approach to punishment. Furthermore, during the initial debates over the legislation that created the Pennsylvania Commission on Sentencing, the sponsor stated that the guidelines were designed to "to make criminal sentences more rational and consistent, to eliminate unwarranted disparity in sentencing, and to restrict the unfettered discretion we give to the sentencing judges." As noted in the Code itself,

The sentencing guidelines provide sanctions proportionate to the severity of the crime and the severity of the offender’s prior conviction record. This establishes a sentencing system with a primary focus on retribution, but one in which the rec-

ommendations allow for the fulfillment of other sentencing purposes, including rehabilitation, deterrence, and incapacitation.\(^{36}\)

Competing ideologies, including rehabilitation and incapacitation, though recognized, were codified as subordinate to the retributive mandate. As Kramer and Kempinen note,\(^{37}\) however, correctional capacity was explicitly not considered by design, as it was assumed that, through management of the duration of sentences on the front end that the penal population would equalize over time.\(^{38}\)

In recent years, though, the pendulum has swung away from this thinking, leaving many jurisdictions, including Pennsylvania, looking to find new ways to reduce recidivism with increasingly scarce resources. This shift in philosophy has been precipitated, in part, by the exponential growth of the prison population, which has proven a difficult problem to manage, both from a financial and a practical standpoint.\(^{39}\) Pennsylvania, facing the same myriad of fiscal and pragmatic pressures as many other jurisdictions, as well as shifts in the prevailing penal philosophies, has also embarked upon the thorny journey towards sentencing reform.

IV. PENNSYLVANIA’S CURRENT SENTENCING STRUCTURE

Not all sentencing systems treat the parole function equally: indeterminate sentencing systems rely on discretionary release while determinate systems, including (and popularized by) recent “truth in sentencing” laws, do not.\(^{40}\) Operating under an indeterminate structure, Pennsylvania law mandates that advisory sentencing guidelines, as promulgated by the Commission, structure decision-making by criminal courts, while an internally-developed

\(^{36}\) 204 Pa. C.S.A. § 303.11(a) (2011).


\(^{38}\) Id. The authors note: “Since stable and fair sentencing policies were the reasons the Commission was established, it decided that prison population should not be the driving force for sentencing decisions. The Commission trusted guidelines to stabilize prison populations and thereby allow for careful planning for correctional resources.”


\(^{40}\) Joseph A. Colquitt, Can Alabama Handle the Truth (in Sentencing)?, 60 ALA. L. REV. 425, 436-39 (2009) (discussing the relative impact of determinate and indeterminate sentencing systems, as well as noting that truth-in-sentencing laws, if enacted without counterbalancing release programs, will often result in increased levels of prison overcrowding).
parole decisional instrument established by the Pennsylvania Board of Probation and Parole guides parole determinations. Courts are required to consider the sentencing guidelines when imposing a sentence for any misdemeanor or felony conviction; they are not bound to sentence within that range.\textsuperscript{41}

The Supreme Court of Pennsylvania has described the basic approach as follows:

In imposing a sentence, the judge is directed to give two numbers representing the minimum and maximum period of incarceration:

(a) General rule. In imposing a sentence of total confinement the court shall at the time of sentencing specify any maximum period up to the limit authorized by law and whether the sentence shall be commenced in a correctional institution or other appropriate institution.

(b) Minimum sentence.-The court shall impose a minimum sentence of confinement which shall not exceed one-half of the maximum sentence imposed.” 42 Pa.C.S. § 9756 (a), (b) (emphasis added). In most cases, the defendant is eligible for parole release at the discretion of the Parole Board after the expiration of the minimum sentence. In no circumstance may the sentence imposed go beyond the statutory maximum sentence.\textsuperscript{42}

The result is a two-number sentence, such as two to four years in prison. The lower number in this range, which indicates the date of parole-release eligibility, may not be more than half of the higher number, which is the date at which the government’s ability to control the defendant expires. This is referred to as the “min-max” rule. Very often, the judge just doubles the lower number when setting the higher number. However, the judge may set the higher number up to the statutory maximum for that offense. Accordingly, for a felony of the first degree which carries a statutory maximum sentence of twenty years, the judge may impose a sentence of five to ten years, or a sentence of five to fifteen years, or a sentence of five to twenty years, etc. Because of the min-max rule, the Judge may not impose a sentence of five to six years in prison. Importantly, the Pennsylvania Commission on

\textsuperscript{41} United States v. Booker, 543 U.S. 220 (2005).
\textsuperscript{42} Commonwealth v. Yuhasz, 602 A.2d 313, 320 (Pa. 2007).
Sentencing only offers guidance to Judges concerning the minimum sentence. The guidelines say *nothing* about the appropriate maximum term of the sentence or the relationship between the minimum and maximums selected.\(^{43}\) As long as the judge follows the min-max rule, she is free to impose any maximum term she deems appropriate.

Determining the appropriate place of confinement is a complicated issue in Pennsylvania. All defendants whose maximum term sentence is less than two years serve their sentences in county jail facilities. Virtually all defendants whose maximum term sentence is five years or greater will be sent to serve their sentences in state prisons. Until November 2011, defendants whose maximum term sentences were at least two years but less than five years served their sentences in a county or a state facility, a decision that was made at the discretion of the sentencing judge. Effective November 24, 2011, the so-called '2 to 5 sentences' will presumptively be served in state prison unless the county certifies that it has sufficient capacity and there is no objection from the District Attorney.\(^{44}\)

Parole release authority is also a bifurcated responsibility in Pennsylvania. Judges currently decide when to grant parole release to those defendants whose maximum term sentence was less than two years. The Pennsylvania Board of Probation and Parole (PBPP or Board) determines when to grant parole release to those defendants whose maximum term sentence (in either a single case or, once aggregated, over multiple cases) is two years or more, regardless of where that individual is confined. Neither the Judge nor the Board may grant parole release before the expiration of the defendant's minimum term sentence, absent special circumstances not relevant here. However, effective November 24, 2011, except for certain DUI sentences,\(^{45}\) paroling authority for all new sentences imposed will be linked to the place of confinement: sentencing courts, as a result, will retain paroling authority for those sentences being served in county facilities.\(^{46}\)

While many purposes may be considered by the court when sentencing, the primary purpose of the sentencing guidelines, since their adoption in 1982, has been retribution, not crime reduction, with particular focus on sentence uniformity and proportionality.

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\(^{43}\) See Question 2, infra.
rather than correctional capacity. Parole decisions are more clearly guided by concerns for public safety, and, accordingly, the Parole Board's decisional instrument takes into account risk of reconviction, identified criminogenic needs, institutional behavior and programming, and numerous other factors in assessing the appropriateness of release on parole.

The structure of sentencing policy is undergoing a period of significant reform. Legislation first enacted in 2008 directs the Commission to develop parole guidelines to be considered by trial judges when exercising release authority over county sentences and by the Pennsylvania Board of Probation and Parole when considering parole of state sentences. Guidelines are also to be developed for re-sentencing upon revocation of probation and for recommitment following revocation of parole. An overarching purpose of the reform legislation, and of these and other new duties assigned to the Commission, is to better coordinate sentencing and parole policies, to promote transparency in decision-making, and to provide support for and implementation of evidence-based practices. This legislation also supports greater consideration of risk of re-offense at sentencing, and more presumptive release at parole, which represents a shift in sentencing policy and guidelines from a "just deserts" model toward a more predictive model.

V. INDETERMINATE STRUCTURED SENTENCING: A COORDINATED APPROACH

In the early 2000's the Supreme Court handed down a series of constitutional decisions that turned the sentencing world on its ear. By the time the dust had settled, some sentencing guidelines, such as the federal guidelines, that once set fairly rigid boundaries had been transformed into advisory recommendations.

47. Kramer & Kempinen, supra note 37.
50. In Apprendi v. New Jersey, 530 U.S. 466 (2000), the Court found that Sixth Amendment requirement that a jury find all facts that increase the statutory maximum penalty, with the exception of prior convictions, was expanded to include mandatory sentencing guideline systems. In United States v. Blakely, 542 U.S. 296 (2004), this logic was applied to the Washington State sentencing guidelines. Therefore, they concluded, those guidelines, standing in as the statutory maximum, could not be exceeded without a jury's finding. In United States v. Booker, 543 U.S. 220 (2005), the Court applied the Blakely logic to the Federal Sentencing Guidelines and transformed them into an advisory scheme. Understandably, this left many states scrambling for a way to maintain their then active sentencing systems.
In response to these changes, and in an attempt to move sentencing jurisprudence forward, a system of sentencing was proposed that would allow for the expansion of type of direction provided by structured sentencing guidelines to the previously unstructured parole release process. Referring to this system as Indeterminate Structured Sentencing (ISS), Chanenson anticipated the need for a single commission responsible for promulgating guidelines for both front-end sentencing and back-end parole decisions:

[The] ISS sentencing guidelines embody a balance between reasonable uniformity and reasonable individualization while allowing a good chance of a relatively proportional sentencing result. This is possible, in part, because of bounded judicial discretion policed by appellate court review. Through ISS parole release guidelines, the Super Commission directs the exercise of the discretionary parole release authority in such a way as to reduce the complaints of the past while taking advantage of the possibilities of the future. The parole release guidelines direct the exercise of the parole board’s discretionary release decision, and usually work to channel the board’s discretion in favor of releasing inmates at or near the expiration of their minimum sentence. The fact that the Super Commission guides the board’s discretion is just one crucial feature.51

The assessment of risk plays an integral role in the implementation of a successful ISS system; increasing the ability of decision-makers to predict, in a manner more accurate than individualized, quasi-clinical assessments, is key to successfully achieving the type of discretion envisioned in the ISS sentencing structure.52

An indeterminate system, with the coordination of both of up-front sentencing and back-end parole guidelines, allows for the preservation of judicial discretion while providing substantive guidance, as well as encouraging the uniform and systematic use of parole release power.53 This “super-commission” would also

52. Id. at 435. Validated actuarial assessments, regardless of the form in which they are applied, represent the ability to overcome a consistent limitation in criminal justice decision-making and may obviate a significant concern about the ISS ideology itself. As Chanenson notes in the aforementioned article, “[u]ltimately, in part because of our limited ability to predict future behavior, we should be humble in our conception of the power and proper scope of parole release authority.” Id.
53. Id.
serve as a conduit for the sharing of information between the sentencing judge and parole authorities, ensuring that there was greater understanding of the overall sentencing process, opportunity for the collection and aggregation of data and greater transparency throughout the process. This integrated approach to structured sentencing dodges both the exceptionally uniform sentences of that result from mandatory guidelines, as well avoiding as the hyper-individualized sentences characterized by unchecked judicial discretion.\footnote{Id. at 380. The author further notes: "[a]n ISS system respects judicial sentencing judgment while also acknowledging the value of structural checks and balances. It permits severe sentences when judges believe them appropriate but also limits the pressure to increase sentences across the board. Although the ISS model draws on aspects of various sentencing systems, it is a distinctive hybrid approach." \textit{Id}.}

The proposed ISS approach represents an attempt to move away from the level uniformity that was encouraged by the mandatory guidelines. As in a more mandatory system, ISS allows a judge to impose a sentence range, with the minimum reflecting the least amount of time the offender could serve in jail and with the maximum limit, still unconstrained by the guidelines, capped at the statutory maximum. At the expiration of the minimum term, offenders would be evaluated for parole release, using a second set of guidelines set out by the ISS super-commission.

Although the Pennsylvania Supreme Court deemed the Pennsylvania Sentencing Guidelines to have always been advisory,\footnote{Yuhasz, 602 A.2d at 320 ("Pennsylvania’s statutory sentencing scheme is indeterminate, advisory, and guided.").} the super commission idea took hold in the Commonwealth. Integrating, and standardizing, assessments of relative risk into sentencing and parole decisions is a step in that direction.

\section*{VI. 2008 Legislative Reforms: Reshaping Sentencing in Pennsylvania}

In 2008, the Pennsylvania General Assembly passed a wide-ranging series of reforms designed to reshape the role of the Commission on Sentencing. Although the purposes identified at sentencing and parole may appear to be in tension, these reforms are targeted to reduce the disparity, and to coordinate the efforts of, front and back-end decision-makers.\footnote{Bergstrom \& Mistick, \textit{supra} note 39.} As Bergstrom \& Mistick\footnote{Id.} have noted, these changes would amend the Commission’s enabling legislation to require a broader and more balanced
consideration of public safety, the gravity of the offense, and the rehabilitative needs of the offender at sentencing, and to recommend the use of "other sentencing alternatives to promote offender accountability, the just compensation to victims and the most efficient use of correctional resources."58

Though relatively recent changes have refocused their purposes, Pennsylvania's sentencing guidelines have been in effect since 1982. Primarily charged with promulgating sentencing guidelines, the Pennsylvania Commission on Sentencing has seen, in recent sessions, its responsibilities significantly expanded. In addition to the traditional duties of the Commission, including the promulgation of sentencing guidelines, the Commission was also tasked with the development of two sets of parole guidelines. One set would be for trial judges making determinations about county parole release, the other would be developed for the Parole Board to consider when granting parole on state sentences. Additionally, the Commission would be charged with drafting guidelines for resentencing or recommitment after the revocation of a parole sentence. This set of reforms was designed to, "better coordinate sentencing and parole policies, to promote transparency in decision making [and] to provide support for ... evidence-based practices."59

In addition to the creation of new sentencing schemas, the 2008 reform legislation refocuses the purposes of sentencing in Pennsylvania. The primary focus of the unified sentencing system will be on public safety, with a more limited focus on retributive ideals. Specifically, the Commission must consider the risk posed by and the needs of the offender and:

(1) Give primary consideration to the protection of the public and to victim safety.

(2) Provide for due consideration of victim input.

(3) Be designed to encourage inmates and parolees to conduct themselves in accordance with conditions and rules of conduct set forth by the department or other prison facilities and the board.

59. See Bergstrom & Mistick, supra note 39 at 77.
(4) Be designed to encourage inmates and parolees to participate in programs that have been demonstrated to be effective in reducing recidivism, including appropriate drug and alcohol treatment programs.

(5) Provide for prioritization of incarceration, rehabilitation and other criminal justice resources for offenders posing the greatest risk to public safety.

(6) Use validated risk assessment tools, be evidence based and take into account available research relating to the risk of recidivism, minimizing the threat posed to public safety and factors maximizing the success of reentry.\textsuperscript{60}

The 2008 reforms also mandated that the Commission determine the impact of any changes proposed in terms of correctional capacity and resource utilization:

Prior to adoption of changes to guidelines for sentencing, resentencing and parole and recommitment ranges following revocation, use a correctional population simulation model to determine: (i) \textit{resources that are required under current guidelines and ranges} (ii) \textit{resources that would be required to carry out any proposed changes to the guidelines and ranges}.\textsuperscript{61}

Consistent with these earlier reforms, legislation enacted in 2010 specifically requires the Commission to develop a risk assessment instrument for use at sentencing, and to incorporate risk into the sentencing guidelines.\textsuperscript{62} In order to comply with these requirements, certain static risk factors may take on increasing importance at sentencing, with dynamic factors, institutional behavior, and institutional programming retaining primary importance as part of the parole decision. The resultant system will have coordinated sentencing and parole guidelines, while recognizing the need for, and implications of, the shifting of priorities between them.

The development of integrated, predictive guidelines for consideration at sentencing and at parole represents a major departure from the guideline practices of the last three decades in Pennsyl-

Reform in Motion

vania. However, the use of actuarial data to forecast future offending patterns, and the study of outcomes to determine the efficacy of sentencing and parole programs and practices, has been convincingly demonstrated in other jurisdictions as a means to enhance public safety while containing correctional costs.

In Virginia, a state with a determinate sentencing structure, a risk assessment tool is used to identify appropriate nonviolent, low-risk offenders for diversion from prison, while another risk instrument is used to identify high-risk sex offenders for longer periods of incapacitation through incarceration. One of the primary motivations behind the adoption of Virginia's risk assessment tools for judges was to free up more prison bed space to house violent offenders. Many of the nonviolent offenders assessed in Virginia were found to be at low risk of committing new felonies, for which minimal supervision was determined to be most appropriate. In Missouri, a state with an indeterminate sentencing structure like Pennsylvania's, the automated sentencing recommendation takes into account offender risk variables, prior criminal history and current offense details, as well as information on parole release guidelines and actual time served by similar offenders. A more detailed Sentencing Assessment Report, prepared based on a guided interview with the offender, provides the Court with additional information, including a summary of the offense, the offender's version, a victim impact statement, offender asset and liability assessment, and an offender management plan, documenting the availability of department programs and resources to support the sentencing decision and to manage offender risk.

Even if a risk assessment instrument similar to those developed in Virginia and Missouri could readily be constructed in Pennsylvania, other factors must be addressed before their implementation. Prior to adoption of any guidelines, the Pennsylvania Commission is required to determine the resources needed to carry out the proposed changes. Current analysis by the Commission is limited to a sentencing and correctional population simulation, which

64. Bergstrom & Kern, supra note 34.
fails to adequately address per unit costs and outcomes by sentencing option and offense category, and does not include consideration of important aspects of program participation, recidivism and victimization. A more sophisticated analysis of the costs and benefits of proposed changes to the guidelines is a critical and necessary step in building the public and political support necessary for adoption. As these changes will be intended to, as a matter of policy, divert offenders from jail or prison and, in specific cases, will reduce the duration of sentences meted out, this support is a necessary prerequisite. All guidelines adopted by the Commission are subject to review by the General Assembly prior to implementation, during which the impact on public safety of any proposal is of paramount concern; these changes, including any potential risk assessments and cost-benefit analyses, are no exception.

The reforms, and the shift in the Commission's mission, highlight more than an update to the procedures and logistics in sentencing. These reforms represent a fundamental shift in penological ideology. The Commonwealth is shifting its understanding of why we punish our offenders from a focus on pure retributivism to a serious consideration of public safety. While the guidelines were previously employed primarily to channel judicial discretion within the boundaries of appropriately retributive punishments, they must now also balance actuarial assessments of risk and considerations of offender needs while continuing to respect these retributive limits.

Given the 2008 reforms, and especially the explicit requirement to use a validated risk assessment instrument, it is no longer a question of if risk assessments and cost-benefit analyses should play a role, but rather how these tools should be integrated into Pennsylvania's indeterminate sentencing system.

VII. RISK: THE BASICS

Risk assessment is not a new concept in the criminal justice system. It is a tool—nothing more and nothing less. Formally, risk is often used in the assessment of bail or the classification of inmates. Informally, sentencing judges have long assessed risk of re-offense in crafting a defendant's sentence. Sometimes, the consideration of risk happened through evaluation of a defendant's prior criminal record, whether as part of a fully discretionary decision or as part of a guidelines system that includes enhanced rec-
ommended punishments for repeat offenders. Other times, judges relied on their own intuition, instinct and sense of justice to impose more severe sentences upon offenders whom they, based on their frequently unspoken clinical prediction, believed presented an enhanced risk to the public in the future. Risk assessment tools now under consideration are more transparent, rely on data, and attempt to regularize this instinct and subject it to more scientifically rigorous examinations. Ensuring uniform application and the unbiased use of available data, these modern predictive tools are facilitated by the use of "structured, empirically-driven and theoretically driven" instruments.

The need for the assessment of risk, in a meaningful and useful way, was considered during the development of ALI's Model Penal Code in the early 1960's and are still an important topic of discussion for the Institute.

Given the application of risk across many contexts, there is no universal definition of risk assessment. Predictions are relied upon in many areas, from medicine to nuclear power, with each situation requiring the consideration of differently weighted factors to accommodate variable outcomes. In a criminal justice setting, these statistical predictions have been used to set levels of supervision, determine treatment, assess sex offenders, and,


69. Model Penal Code: Sentencing § 6B.09(2) (Council Draft No. 2, 2008) (sentencing commissions should develop “offender risk-assessment instruments or processes supported by current and ongoing recidivism re-search of felons in the state, that will estimate the relative risks that individual felons pose to public safety through future criminal conduct”); Model Penal Code: Sentencing § 6B.09 cmt. A (Preliminary Draft No. 5, 2007) (“Actuarial—or statistical—predictions of risk, derived from objective criteria, have been found superior to clinical predictions built on professional training, experience, and judgment of the persons making predictions.”); Transcript of Model Penal Code Discussion Sessions (by membership) at 28 (2010) (expressing concern that risk assessment tools may inappropriately allocate greater risk to individuals based on their socioeconomic status, geographic location, and housing).


72. See, e.g., State ex rel. Romley v. Fields, 35 P.3d 82, 89 (Ariz. Ct. App. 2001); People v. Therrian, 6 Cal.Rptr.3d 415, 419-20 (Cal. Ct. App. 2003); In re Risk Level Determination
with increasing frequency, determine sentence length.\textsuperscript{73} Most generally, actuarial assessment is regarded as:

a formal method . . . [that provides] a probability, or expected value, of some outcome. It uses empirical research to relate numerical predictor variables to numerical outcomes. The \textit{sine qua non} of actuarial assessment involves using an objective, mechanistic, reproducible combination of predictive factors, selected and validated through empirical research, against known outcomes that have also been quantified.\textsuperscript{74}

The use of risk assessments has become an increasingly prevalent, and powerful, force in the shaping direction of both public policy and in making individual-level decisions.\textsuperscript{75} The assessment of actuarial risk represents a departure from traditional methods, many of which rely solely upon clinical assessments. These determinations of risk, frequently made during structured interviews and based on “clinical experience and intuition,” have been shown to be less accurate and more costly.\textsuperscript{76} Beginning with attempts to measure who would be a good candidate for parole in the 1920’s,\textsuperscript{77} most early attempts to classify individuals by risk were based on clinical judgments that were notoriously prone to error.\textsuperscript{78} These basic instruments assigned individuals a score based on the number of high and low risk attributes they exhibited and statistical techniques, including linear and logistic regres-

\begin{thebibliography}{99}
\bibitem{76} There is a growing body of research on “structured professional judgment, through which trained interviewers are taught to focus on specific criminogenic factors in order to standardize the clinical assessment process. However, these methods are still comparatively unreliable and are relatively costly. See Stephen Hart, \textit{Evidence-Based Assessment of Risk for Sexual Violence}, 1 CHAP. J. CRIM. JUST. 1, 150 (2009).
\end{thebibliography}
Reform in Motion

...sion and CART (classification and regression trees) were then used to group similar offender profiles.79

Similar techniques are still in use in many jurisdictions, including in Pennsylvania, and include the LSI-R80 and Static 9981 instruments. According to the author of the LSI-R, Dr. James Bonta, the value of the instrument lies in its ability to aid in "the reliable and valid identification of criminogenic needs," and the resulting ability to craft a sentence that effectively addresses the offender's risk of recidivism.82 In Pennsylvania, for example, the Pennsylvania Board of Probation and Parole has, for many years relied upon an aggregate risk instrument that includes a number of predictive factors. These include four weighted factors, the instant offense, risk/needs assessment based on the LSI-R or Static 99, institutional adjustment, and institutional behavior, and fifteen non-weighted countervailing factors, as well as the professional judgment of the Board itself.83

More recently developed techniques, however, which use increasingly complex methods, including random forest modeling, have allowed for more accurate and rapid predictions.84 At their heart, each approach to assessment represents an attempt to situate offenders "on a continuum of risk using risk-related attributes, such as drug abuse, criminal offense history, employment status, and childhood exposure to physical or sexual abuse,"85 in a manner more consistent and inclusive than the evaluation of any human assessor.

Most prior attempts to integrate risk tools into sentencing have, before the development of the more advanced algorithms, failed due to concerns about the accuracy of the predictions. However, there have also been instances in which risk was successfully integrated; Virginia is such a case. Virginia, beginning in 1997, introduced a specially designed risk instrument into its system of advisory guidelines. This assessment was designed to divert 25% of the low-risk prison-bound population away from incarceration. The Virginia system was modified in 2001 when a second assessment system was added to specifically address the unique offender and revivalism profile presented by sex offenders. Through extensive analysis, Virginia has evaluated the construction and application of the risk tools and found, "a high degree of statistically significant correlation between risk scores and the likelihood of criminal recidivism." Pennsylvania can, while still operating within the confines of the current guideline system, replicate the success of the Virginia model.

The Virginia assessments are not, to the extent currently possible, fully automated. The combination of these new methods with the computerization offers Pennsylvania the opportunity to advance the potential benefit of risk assessments. As noted by Oleson,

Merely automating an unscientific system will not make it sound, but a philosophical shift toward the use of outcome measures would be profound, and computers could make this effort much easier. Given recent developments in the field of risk/needs instruments, and drawing upon sentencing information systems developed by other jurisdictions, a new approach to sentencing is not an impossible goal.

Standardized, actuarial tools make risk prediction possible on the scale necessary to effect change within the current sentencing and parole systems. Even critics of risk assessment have noted

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88. Id.
89. Bergstrom & Kern, supra note 34.
that integrating actuarial tools into the decision-making process can instill a sense of fairness and flexibility in the criminal justice process\textsuperscript{92} and that “risk instruments demonstrate an increasingly refined capacity to sort and classify criminalized populations.”\textsuperscript{93} The inclusion of impartial and empirical processes can help to subvert impressions of individualized bias and refocus the sentencing process on the offender’s conduct and the characteristics that are most relevant to determining the risk to the community that they may pose.

It is also worth reiterating that, although the use of the statistical tools themselves may be a recent development, the consideration of risk is not. Depending on the court, risk manifests itself through reliance on clinical judgments, older assessment devices, and, most common of all, within the decision-making processes of the individual judges. In almost every sentencing decision, “judges are forced to guess about how much retribution and how much rehabilitation should go into a sentence. They must guess whether an offender needs to be incarcerated to protect the public and whether an offender will successfully turn his life around.”\textsuperscript{94} By recognizing the significance of these types of decisions and the value added through standardized risk tools, more accurate sentencing recommendations can be produced for decision-makers at all stages of the sanctioning process.

The advancements in the ability of actuarial techniques to inform, and even to improve, the ability of the judiciary to make decisions has not gone unnoticed by courts themselves. For example, in considering the admission of evidence on risk in a child pornography case, a District Court noted that:

\begin{quote}
projections of future criminality based on general research should be encouraged as providing information needed for those providing facilities as in the first, e.g., access to mental health treatment programs and education where a lack of
\end{quote}

\begin{footnotes}


94. Oleson, supra note 90, at 749.
\end{footnotes}
such services is causative of risk, or, as in the second and third, in deciding on specific sentences.95

Regardless of the method, however, risk assessments of any type do not offer the ability for sentences to become un-tethered from the suggestions of the guidelines or to subvert the exercise of judicial autonomy. Instead, while perhaps imperfect, this risk-based guidance represents the opportunity to move beyond ad-hoc assessments and standard normative principles in an attempt to prevent crime.

VIII. THE PROMISE OF RISK ASSESSMENT

Actuarial risk is described by Taxman96 as "the demographic or historical factors (past behaviors) that affect the trajectory of an individual;"97 these are generally static and unchanging, such as age of first arrest or criminal record. Formal risk is increasingly being used by jurisdictions at sentencing, encouraged by such prominent organizations as the National Center for State Courts98 and the Pew Center on the States’ Public Safety Performance Project.99 Important work has been done reviewing Virginia’s groundbreaking efforts in this area,100 though additional study is needed to promote best practices around the use of risk at sentencing. Hannah-Moffat has identified important areas for future investigations: methodological structure and logic of risk, effect of actuarial risk models on individuals and groups of criminal defendants, legal relevance and epistemological basis of risk, and the organizational and policy impact of risk-needs technologies.101 In Pennsylvania, substantial research support is required to provide the actuarial analysis necessary to identify the most statistically and pragmatically significant risk factors and to assign appropriate weights to these factors, to guide the incorporation of risk into

97. Id. at 9.
101. Hannah-Moffat, supra note 93.
the guidelines, to estimate the impact of proposed system-wide changes, and to measure the outcomes following implementation.

Risk assessments are not only a method through which dangerous offenders are identified and incapacitated. An obvious corollary to the identification of high-risk offenders is determining which individuals, despite a criminal conviction, do not, in all likelihood, pose a danger to the community. In Virginia, for example, actuarial risk has been used to identify the lowest risk nonviolent offenders and to recommend their diversion from prison. While the Virginia Criminal Sentencing Commission (VCSC) was initially required by the Legislature to select "... 25% of the lowest risk, incarceration-bound, drug and property offenders for placement in alternative (non-prison) sanctions," a later mandate from the Assembly required an adjustment to the risk assessment threshold in order to increase the number of offenders recommended for alternative sanctions "without a significant increase in risk to public safety."¹⁰²

A methodologically sound risk assessment study will typically employ multiple measures of offender failure. This ensures that the output of the assessments made using the instrument will encompass the full range of potentially dangerous outcomes and any responsive measures taken will be targeted to prevent future criminal conduct. In Virginia, the commission used seven different measures of recidivism and analyzed the data using all of the different measures of the dependent variable. The final decision on the dependent variable measure was left to the policymakers—the sentencing commission members. The detailed data analysis of Virginia felons clearly demonstrates a high degree of statistically significant correlation between risk scores and the likelihood of criminal recidivism.¹⁰³

While it is possible to include sex offenses within a standard risk prediction process, there are other options available. The variation in offender and recidivism profiles between sex offenders and other criminals may require different prediction tools.¹⁰⁴ Such bifurcation may also be necessary from a public policy or political standpoint. The Virginia Criminal Sentencing Commission, in keeping with this approach, developed a sex offender risk assessment "to identify those offenders who, as a group, represent

¹⁰². Ostrom, et al., supra note 100.
¹⁰³. Bergstrom & Kern, supra note 34.
Recognizing the difference in the sex offender population, they sought to, "develop a reliable and valid predictive instrument, specific to the population of sex offenders in Virginia that could be a valuable tool for the judiciary when sentencing sex offenders." Under the resulting system of guidelines, the upper limit of the recommended sentencing guideline range is increased in proportion to the risk of the offender. Therefore, those sex offenders assessed at the highest likelihood of recidivism had the maximum sentence increased the most, while those that posed some danger to the community, but were considered to be at a lower risk, had their potential maximum sentence increased less. The determination of what level of risk is acceptable is a policy decision, and is made through a public process. It is also dynamic, with review of, and adjustments to, the thresholds determined through the same public process. Though not the only approach to the assessment of sexual offenders, the Virginia approach allows for the standardization of risk assessment while building in the flexibility required by the variation inherent in the sex offender population.

The use of risk assessments is not fully embraced by everyone. U.S. District Judge Weinstein from the Eastern District of New York recently observed that, "[r]eliance on actuarial risk assessment tools in sentencing has raised serious concern about forward-looking predictions of future behavior rather than backward-looking punishment for past behavior." This concern can be addressed through the reconsideration of legal policies focused on retributive limits. Furthermore, "even the most zealous proponents of actuarial sentencing do not pretend that it is a panacea, or that a scatter plot of data can adequately substitute for the exercise of human judgment. It is well understood that merely 'incanting the word information is not a magical solution.'"

105. Bergstrom & Kern, supra note 34.
107. Id.
108. See Grant T. Harris et al., A Multisite Comparison of Actuarial Risk Instruments for Sex Offenders, 15 PSYCHOLOGICAL ASSESSMENT 3, 413-25 (2003).
In spite of these recognized concerns, risk has been accepted, to varying degrees, in courts across the nation. As noted by the Supreme Court of Indiana, these assessments "can be significant sources of valuable information for judicial consideration in deciding whether to suspend all or part of a sentence, how to design a probation program for the offender, whether to assign an offender to alternative treatment facilities or programs, and other such corollary sentencing matters." Additionally, the "results [of risk assessments] can enhance a trial judge's individualized evaluation of the sentencing evidence and selection of the program of penal consequences most appropriate for the reformation of a particular offender." Even Judge Weinstein has written that, "[e]vidence-based sentencing that utilizes risk assessment tools is a serious and often useful enterprise, but it must be handled gingerly." That is the challenge the Pennsylvania General Assembly has presented to its Commission on Sentencing.

IX. RISK ASSESSMENT IN PENNSYLVANIA: THE NEXT FRONTIER

Risk assessments represent the leading edge of the next wave of reform in Pennsylvania. One of the newest legislative mandates for the Pennsylvania Commission on Sentencing explicitly requires the development of a risk assessment instrument for use in Pennsylvania at sentencing, as well as for the standardization and incorporation of risk into the sentencing guidelines. Despite the research done in other jurisdictions, empirical research, unique to the jurisdiction must be performed in order to adapt those existing tools to the unique sentencing system in Pennsylvania, or, alternatively, to develop a completely new instrument. Without a specific legislative mandate regarding the nature of the risk (i.e., risk of any crime, risk of violent crime, etc.) or thresholds for determining categories (i.e. boundaries for high, medium, low risk), the Commission will first need to consider a wide variety of options in determining an acceptable level of risk for certain sentencing recommendations.

As a starting point, decision-makers in Pennsylvania must consider basic definitional issues, most significantly what conduct to count as recidivism, the length of follow-up periods and conduct a

111. Malenchik v. State, 928 N.E.2d 564, 573 (Ind. 2010).
112. Id.
thorough analysis of current recidivism profiles. These are important considerations, and the decisions may differ depending on the offender group. As an example, Virginia selected as its operational definition of recidivism for the sex offender instrument a new arrest within five years of release for any crime against a person, including any new sex crime. The adoption of this definition, a policy decision by the Virginia Commission supported by their Legislature, was believed to best reflect the true rate of repeat criminal behavior among sex offenders in the study. Regarding recidivism analysis, the VCSC utilized and compared the findings of three statistical techniques—logistic regression, survival analysis, and classification tree analysis—before selecting survival analysis for the development of its risk assessment instrument.\textsuperscript{114} The Commission will need to review and make decisions related to these approaches and policy options.

Gathering accurate and timely data on current rates of recidivism and offender profiles is a necessary prerequisite to designing an effect assessment method. The results of the statistical analysis, the identification of significant factors in predicting recidivism and the relative importance of each factor, provide the basis for the construction of the risk assessment. The findings related to risk of future dangerousness will inform all decisions about appropriate thresholds, including how to match risk profiles with an appropriate and useful classification system. Only once this has been completed can work begin to determine the most appropriate manner of incorporating risk assessments into the current guidelines. Much later, the final stages of development, including the pilot testing of the risk assessment instrument and modified sentencing guidelines, can begin to address both the efficacy and the implementation of the coordinated instrument and guidelines.

The development of a targeted risk instrument offers the opportunity to employ powerful statistical tools to further guide decision-making at sentencing without eliminating human judgment from the process. The development of ever more advanced methodologies for predicting risk presents a moment of potential sea change that may significantly reform the way that sentencing decisions, including the construction of sentences and the manner in which discretionary parole release is weighed. At the most basic level, these advancements have resulted in increasing demand for tools to assist practitioners in difficult decisions, often with signif-

\textsuperscript{114} Virginia Criminal Sentencing Commission, \textit{supra} note 106.
significant consequences for public safety. Actuarial risk assessment tools are already in use by child welfare agencies, juvenile courts, mental health hospitals, and criminal courts; risk assessment instruments to inform aspects of case management and to target clinical interventions.\textsuperscript{115} The application of these instruments to sentencing decisions represents the next reasonable step in the advancement of sentencing jurisprudence.

Risk assessment, from a philosophical standpoint, has long been a key feature of judicial decision-making. The Court must decide, at many different junctures, the potential outcomes of a judgment and the consequences of each of potential result. However, the information relied upon in reaching conclusions about recidivism risks comes from many sources, including the presentence reports, and is both not reliably available in all cases and not always reliable. Perhaps more importantly, the information, even when available, is not always applied consistently or uniformly. The integration of statistical tools into sentencing structures already in place offers the opportunity to alleviate some of these concerns.\textsuperscript{116}

By the end of 2011, it is estimated that nearly 150,000 sentences representing more than 100,000 criminal incidents will be reported to the Pennsylvania Commission on Sentencing. While it would be difficult to conduct a comprehensive risk and needs assessment prior to the sentencing of each offender, the use of an offender risk assessment will provide for a risk screening as part of the sentencing guidelines in every case. In doing to, risk scores can be delivered in each instance where one is requested or mandated without delaying the sentencing process. Structural adjustments to the sentencing recommendations could be linked to level of static risk. For low risk offenders, an extension of the standard range to include the mitigated range would promote consideration of dispositional alternatives or durational reductions; for high risk offenders, an extension of the standard range into the aggravated range would permit durational increases for offenders targeted for incapacitation. In addition, the court would continue to be encouraged to consider dynamic factors, offender needs, and available programming in determining an appropriate individualized sentence.


The successful efforts in Virginia to build multiple offender-specific risk assessment instruments, and to incorporate these into sentencing guidelines, provide a useful starting point for this project in Pennsylvania. Certainly, the research design adopted by the VCSC can serve as a framework for the work by the Commission. While the legislation in Pennsylvania mandates the adoption of a sentence risk assessment instrument for use in all criminal proceedings, the Commission's approach is to initially develop an instrument for use with specific offender populations which reflect offender characteristics and recidivism patterns for offenders sentenced in Pennsylvania. As in Virginia, targeted instruments could be developed for violent and sex offenders, as well as for non-violent property and drug offenders. For the non-violent group, the purpose of the risk assessment can be the identification of those offenders presently incarcerated who are at low risk of reoffense or who may be recommended for diversion. For the violent and sex offender groups, risk assessment could be repurposed as a means to identify those offenders at high risk of a serious reoffense, in order to better inform sentencing and parole decision-makers of potential threat to public safety.

X. PAYING THE PIPER: COST-BENEFIT ANALYSIS

The introduction of mandatory risk assessment into the enabling legislation of the Commission fundamentally changed the focus of sentencing in Pennsylvania.\textsuperscript{117} The 2008 reforms require the consideration of resources required and the impact anticipated from newly developed or modified guidelines.\textsuperscript{118} It is especially important for those decisions made in a sentencing context, "to ensure a net social gain from government action" in order to "ensure that criminal law does not aggravate other risks and undermine other social policies more than it achieves social good."\textsuperscript{119} Doing so requires a clear understanding of the expense, both fiscal and pragmatic, and the potential returns of the reform. Engaging in cost-benefit analysis can assist policymakers, including the

\begin{footnotesize}
\begin{enumerate}
\item[117.] 42 Pa Consol. Stat. Ann. §2154.7
\item[118.] An impact assessment is now mandated under a number of different circumstances, including prior to the adoption of changes to guidelines for sentencing, resentencing, parole or revocation sentences (42 Pa Consol. Stat. Ann. 2153(a)(15)), as well as when considering the effect of any amendments to the place of confinement statute (42 Pa Consol. Stat. Ann. 2154(a)(5)).
\end{enumerate}
\end{footnotesize}
Commission, as they weigh competing options in an environment being reshaped by fiscal pressures.

A. Cost-benefit Analysis: The Basics

Cost-benefit analysis (CBA) is a useful tool in the policy decision-making process. Given increasingly tight budgets and competition for fiscal resources, it has become an essential part of many policy decisions. The CBA process is a systematic approach that assigns value in consistent metrics to costs and benefits. The impact of a change in policy or practice or an intervention can be measured for its net benefit or cost. Although there are other potential uses, for current purposes and consistent with the relevant Pennsylvania legislation, CBA is viewed solely as a policy level tool. Values are assigned for the current costs of two programs or scenarios and the difference computed. In addition to the expense of a program and the potentially generated revenue or savings, a full CBA analysis must also include associated primary and secondary costs and benefits must be identified and assigned a relative value.\textsuperscript{120} The overall framework of what to include must also be determined.\textsuperscript{121} Though complicated in almost any situation, sentencing, and criminal justice more generally, presents a difficult situation in which savings estimates are difficult to narrow down and costs are based sentencing practices or population demographics that are constantly shifting.

There are three CBA models that are most prevalent in sentencing.\textsuperscript{122} First is the criminal justice system model, which limits costs to criminal justice expenditures such as average daily cost to incarcerate, court or first responder operations, or parole supervision. Second is the direct-loss model. This adds limited tangible victims’ costs to the first model. Third is the full-cost model. This model includes tangible victim costs and adds less tangible ones as well as outcome measures. While the last model is the standard for many other fields of study, the criminal justice system is less apt to use it due to difficulty assigning values to outcomes and less tangible areas. Assigning concrete values to specific consequences may be more subjective and raises the potential to create signifi-
cant moral dilemmas. Complicating matters further, monetary market values cannot be assigned to social or moral values, stigma, states of mind, in a meaningful and consistent manner. This makes assessing costs in a systematic way difficult, if not impossible.

Despite these—perhaps intractable—problems, CBA does allow for a unique opportunity to provide decision-makers with information often absent in criminal justice policymaking: the cost of resources in comparison to the return on the public’s investment. The Pew Charitable Trusts notes that “the key issue is for policymakers to base their decisions on a clear understanding of the costs and benefits of incarceration—and of data-driven, evidence-based alternatives” that retain public safety and are less costly.

Given the pragmatic implications of sentencing reform, not to mention the fiscal result of penal reform itself, those decision-makers need to understand the costs and benefits of policy changes before they are enacted. It is no longer sufficient for decisions with regard to sentencing policy to be made in a fiscally reactionary way.

Cost-benefit analyses are commonly ex post, or retrospectively, used to highlight differences in existing programs where resource costs and outcomes are known. For example, a CBA was undertaken to compare recidivism of inmates from a traditional prison environment and a boot camp style environment. In all three models as discussed, the boot camp generated cost savings. Another programmatic example compared economic costs and benefits of individualized and multi-systemic therapy for juvenile offenders. Using the full-cost model for cost-benefit analysis in a 13.7 year follow-up period, it found that the multisystem therapy was not only cost effective but also clinically effective. However, in both cases, by the time the analysis was completed, both programs had been in place for some time. By performing the cost-benefit legwork before undertaking reform, the “benefit” of the

123. Hansson, supra note 121.
126. Bieire, supra note 122.
program could have been realized earlier and the costlier program avoided altogether. This is not to say, however, that a post hoc analysis lacks utility, as many expenses that are speculative before a program begins become clear when it has begun operation. However, the delay in evaluation represents another, often unconsidered, cost.

Cost-benefit analysis may, and often should, be used prospectively. For instance, a cost-benefit analysis was conducted in North Carolina to determine the economic impact of a juvenile policy shift. This policy change involved the transfer of juveniles aged sixteen and seventeen convicted of misdemeanors and non-violent felonies from the criminal justice system to the juvenile facilities. It examined this change from a government cost, victim cost, and recidivism perspective. It found that the costs of $70.9 million were outweighed by the benefits of $123.1 million generated per year.\textsuperscript{128} In another case involving a prospective policy shift, Connecticut determined that they needed to reduce the incarcerated population. Probation and parole violators contributed significantly to that population. The state determined that recidivism reduction programs and extensive reentry programming would reduce this population. It invested $13 million in the programs from the incarceration costs it anticipated saving and, within two years, the population declined. By considering the implications of the reform before enacting change, decision-makers were able to both avoid making expenditures on a program that would later be deemed inefficient and were able to invest the money saved, from the outset, in a meaningful. This is the approach that Pennsylvania should also take.

Though there are limited examples of the application of CBA to sentencing, and certainly even fewer at the intersection of risk and reform, there have been some attempted to quantify the savings of sentencing reform. The Washington State Institute for Public Policy (WSIPP) sought to broaden its cost-benefit efforts in sentencing policies. Through a contract with Pew, a cost-benefit tool was developed. It measures net effects of criminal justice policies that impact prison populations, including numbers sentenced, length of stay, and programs that are intended to reduce recidivism. Costs of resources versus the return on investment such as reduced prison population, reduction of crime, or reduced

\textsuperscript{128} Henrichson & Levshin, \textit{supra} note 124.
recidivism, are important components in evaluating the effectiveness of sentencing policies and practices.\footnote{129. Washington State Institute for Public Policy, WSIPPS's Benefit-Cost Tool for States: Examining Policy Options in Sentencing and Corrections (2010).}

B. Bringing Cost-Benefit Analysis to Pennsylvania

The reform legislation first passed in 2008, as well as the 2010 modifications, provide for, and, in fact, mandate, a sweeping change to the way that sentencing and parole are considered in Pennsylvania. The utilization of cost-benefit analysis in this process affords the opportunity for a reliable mechanism for comparing the relative return on investment of competing programs and policy options to be made available in a wider range of decisions than ever before. Considering the significant policy shift represented by incorporating risk into the sentencing guidelines, the use of cost-benefit analysis is central to communicating the impact of these proposals and choices.

In the immediate, two tasks must be accomplished that require a reliance on CBA methodologies. First, a cost analysis will play a key role in the development of a reliable, Pennsylvania-specific metric for each statutorily-defined sentencing option available to the court. This must be completed for each classification of crime in order to, for the first time, gather a complete picture of the fiscal and recidivism-related impact of current sentencing policies and practices. Secondly, and once the potential options for reform have been fully developed, cost-benefit analyses are necessary to measure and communicate the impact of proposed changes to the guidelines that incorporate consideration of risk at sentencing.

An effective cost-benefit analysis, in most scenarios, considers numerous measures, including the calculation of fixed and likely costs as well as potential savings. However, in a criminal justice context, the scope must be expanded to include probabilities of conviction, sentence distributions by crime type, and estimates of effect based on the prior evaluation of specific programs. When considering a jurisdiction-specific tool, as is being done in Pennsylvania, additional complications, including the refinement of crime type categories, determination of attrition rates, calculation of Pennsylvania-specific cost estimates, particularly as related to taxpayer and victim costs, and measures of program-specific out-
come for alternative sentences and programs, become necessary to achieve reliable cost-benefit data.

Currently, the data necessary to take even these preliminary steps are not available. This represents the most fundamental challenge to the commencement of the reform process. In order to most effectively use the WSIPP CBA tool in Pennsylvania, or even another analog, the development of more granular and Pennsylvania-specific information on costs and impacts is required. Specific tasks associated with this effort include:

1. Refinement of crime type categories, in order to provide consistent mapping and aggregation of offenses to crime type categories and to the three offense groups (i.e., non-violent, violent, and sex offenses);

2. Determination of crime and attrition rates (arrest to conviction), sentence distribution and time-served by crime type category;

3. Calculation of Pennsylvania-specific cost estimates by crime type category and statutorily-defined sentencing alternatives and programs\footnote{130. The alternative programs include state prison, Recidivism Risk Reduction Incentive (RRRI), State Intermediate Punishment (SIP), Boot Camp, county jail, County Intermediate Punishment (CIP), probation, economic sanctions, and Guilty without Further Penalty (GWFP). See Pennsylvania Commission on Sentencing, http://pcs.la.psu.edu/publications/annual-reports (2009).} including associated taxpayer and victim costs; and

4. Determination of recidivism rates by crime type category of the statutorily-defined sentencing alternatives and programs.

Upon the development of this information, the CBA tool will be used for its primarily designated task: to determine and compare the impact of the current sentencing guidelines with those proposed that include consideration of risk. With these calculations in hand, the Commission will be able to more effectively communicate the policy choices to the public and the General Assembly as part of the adoption process. The establishment of a process and protocol for cost-benefit analysis will add value to the Commission’s work beyond the evaluation of these reforms. By establishing such procedures, the Commission will have a reliable tool for assessments of other guidelines and policies, such as those related...
to re-sentencing and parole, in order to continue to promote best practices.

XI. BRINGING IT ALL TOGETHER: FOUR KEY QUESTIONS FOR PENNSYLVANIA

The assessment of risk—both at sentencing and at parole—and the cost of doing so will define the implementation of correctional reforms in Pennsylvania. By considering public safety and correctional capacity, decision-makers will find themselves faced with a number of questions with regard to both the implementation and potential of these new actuarial tools. At this preliminary stage, four broad questions are coming into focus. It is far too early in the process to know what the answers to these questions should or will be. However, starting to explore these questions now will help frame the debate.

1. How should a risk assessment be used and on which type of risk should it focus?

Just invoking the words “risk assessment” is an insufficient guide at either the policy or pragmatic level. More serious offenses are, understandably and appropriately, treated differently by the courts than less serious offenses. Perhaps society cannot afford a full risk assessment in every case just, as we do not require a full presentence investigation report in every case, no matter how minor. Perhaps society should be less concerned about the risk of a defendant committing a minor property offense in the future than the risk that this offender will commit a violent offense in the future; each prediction assesses risk, but the impact on the community is markedly different. At a policy level, the Commission needs to determine both how to measure risk and on which type of risk to focus.

Actuarial tools themselves impose financial costs. The creation of each assessment may require the collection or aggregation of data that is stored in different locations or held by various agencies. Full, individualized risk assessments, therefore, may not be appropriate in every instance, and may not be practical for incorporation into the sentencing guidelines. As demonstrated in Virginia and Missouri, a more modest and automated risk screening, which relies on information already existing or readily available, may be an appropriate and practical first step. Such a risk screening could provide useful information to the court, particularly in identifying low risk and less serious cases that may be appropriate
for diversion, as well as determining the duration and structure of confinement sentences for serious and high-risk offenders. A risk screening may also identify those cases where more information, such as a comprehensive risk and needs assessment, a presentence investigation report, or referral for a clinical assessment and evaluation, is required due to uncertainty about the defendant’s criminal proclivities. How should the Commission approach this task of measuring risk?

Related to the question of how to assess risk is the challenge of which type of risk to evaluate. Although this has been the standard practice in creating presentence reports for many years, an assessment of a defendant’s risk is more than a simple catalog of their past criminal history or a collection of demographic variables. Such an approach offers little prospective information about the individual. From an operational perspective, we must first answer a preliminary, but essential, question: “risk of what?” This not an academic decision, though it should be guided by past research and best practices; this falls squarely into the policy arena.

We must start with the unfortunate reality that no model is perfect, and that all errors in the model will have real costs and consequences. An example from the world of probation may be instructive. In Philadelphia, when constructing the probation risk tool, Probation Department administrators had to consider significant and thorny issues of policy, including: how much worse is it to under-supervise a high-risk probationer, knowing they could commit a serious offense, than it is to increase, by virtue of an inaccurate assessment, the supervision of a lower risk offender? Regardless of the parameters of the decision, there are benefits and pitfalls all around; actuarial models can be built to accommodate these demands. Defining re-offending, in a manner that is practicable, requires a consideration of both severity and the prevalence of the potential re-offending. Considering offending from a binary perspective, which requires treating all offenses of any type equally, will skew the manner in which the tool will be utilized. Considering minor offenses as a complete failure will result in many low-level offenders who are more likely to offend, but commit less serious acts, being returned to prison. From a public safety perspective, this does little to reduce threats on the street and is not an efficacious use of resources.

In defining the outcome, the difference between frequency and prevalence must also be considered. If one intends to limit the overall number of crimes being committed, it is logical to focus on those offenses that are being committed at higher rates. These acts, for example, jaywalking, pose little danger to society as a whole. Their elimination would, however, return a steep drop in overall rates of crime. Murder and other serious offenses are less likely to occur, but when they do, there is a large and obvious harm being committed. They are infrequent but represent the type of harm that many would want the criminal justice system to prevent. Any assessment of risk must be sensitive enough to differentiate the two types of offenses, as well as flexible enough to accommodate differential assessments of societal costs across offense types.

The questions of how to assess risk and on which type of risk to focus on are fundamental to the creation of a viable risk assessment mechanism.

2. What conduct should be considered relevant when assessing future risk?

The current sentencing guidelines consider only the conduct for which the defendant is being sentenced and the sum of his prior crimes, captured in the offense gravity score (OGS), prior record score (PRS) and several enhancements, when determining the recommended minimum sentence range. Judges may consider the presence of aggravating or mitigating factors, and adjust the sentence accordingly; few additional factors are taken into account formally. The goal of a risk-integrated sentencing structure is to allow retributive goals to be met in a system that sets the punishment for each individual case in manner that reflects both the need to sanction and the limitations of the sanctioning system. That is to say, the integration of risk does not require the abandonment of traditional philosophies, but rather requires that they be bounded by rationality.

Despite the integration of risk assessments into the decision-making process, actuarial data will not undermine the justifications for punishment or remove the vital human elements of wisdom or moral judgment. Retributive ideals will still be used to set the minimum, preserving the ‘just deserts’ aspect of retribution, while respecting the ceiling that, as it is now, the legislature establishes. Risk, from a utilitarian perspective, will be employed in
a manner that allows sentences to be developed with an individualized sense of proportionality.

In addition to focusing assessments on the salient factors, actuarial tools allow for the clear designation of what factors can, and should, be considered in the risk-assessment or in sentencing generally. A statistical model calculates risk assessment using only the data that are provided; prohibited factors, such as race, by design, cannot be included. This type of a model-based approach may be effective at minimizing, or eliminating the impact of inappropriate considerations. Pennsylvania, in developing risk tools, can learn from the examples of actuarial tools already established. In Virginia, for example, race-based variables were removed from the model, regardless of the any predicted validity that they were theorized to have. The final predictive instrument is able to assess risk without contamination by intentional or individualized bias or other, irrelevant factors.

Sentencing decisions are often the result of the judicial consideration of static risk factors in the form of the “the demographic or historical factors (past behaviors) that affect the trajectory of an individual.” These characteristics, including the nature of the instant offense, will remain unchanged throughout the individual’s life. However, sentencing operates within established legal constraints. These include the limitations on punishment, as determined by the facts proven beyond a reasonable doubt, as well as by other factors determined under a lower burden of proof, that cannot be used to expand the boundaries of the punishment ascribed to the conviction offense. Therefore, the offense of conviction, not the offenses charged but not proven, must be used to define these legal boundaries. While Pennsylvania’s sentencing guidelines have also used offense of conviction as the basis for sentencing recommendations, other jurisdictions, including the United States Sentencing Commission, have used ‘relevant conduct’ as a means of providing recommendations that are arguably more representative of the actual offenses committed.

Paroling authorities must also consider a different set of variables: the dynamic risk factors. These factors may change over time and reflect the impact of treatment programs, the offender’s attitudinal shifts, institutional behavior, and their criminogenic needs. Parole decision-making, at least in Pennsylvania, starts

132. Bergstrom & Kern, supra note 34.
133. Taxman, supra note 96.
with the minimum and maximum terms of the sentence set by the Court, and the legislative proposition that there is no right to parole. As such, risk, rather than retribution, is the primary focus of the parole decision, and relevant conduct, rather than conviction offense, is of greater import. In cases where the conviction offense pales in comparison to the charged offense, as with certain negotiated pleas, the sentencing and parole decisions are operating from very different starting points.

Balancing these differing approaches comprises the “art” and the “science”\textsuperscript{134} of sentencing and parole decision-making and remains essential to determining the outcomes of sentencing decisions. The synchronized development of sentencing and parole guidelines will allow for the coordination of both hearings to ensure that the conduct considered is balanced appropriately. Using risk to redistribute the manner in which sanctions are calculated—and allowing them to balance—provides the opportunity to make the overall sentencing schemes complimentary. However, central to this process may be the need for a more coordinated, systemic consideration of the offense, whether through greater scrutiny of relevant conduct, or more reserved and focused use of the same at parole. Failing to do so can channel parole release decisions into a form of resentencing.

The question, of course, remains focused on striking the appropriate balance and a consideration of at what stage should which considerations dominate and why?

3. Given the range of sentencing options available, should the Commission consider guidelines for both minimum and maximum sentences?

Pennsylvania’s sentencing guidelines do not speak to the maximum term part of the sentence; is this appropriate in an era of greater front and back-end coordination?

The sentencing guidelines in Pennsylvania were first created at a time when parole release most often occurred at the expiration of the minimum sentence imposed by the judge. Anecdotally, it appears that institutional behavior was often used as a proxy for risk of re-offending and there was a strong functional, though not legal, presumption of release. As the average sentence length, as well as the average time served, has increased, the population of

\textsuperscript{134} Bergstrom & Mistick, \textit{supra} note 39.
the prison system has increased exponentially. This growth, coupled with increased focus on parolee release due to several high-profile crimes committed by parolees, and a subsequent parole-release moratorium has served only to exacerbate retributive limit concerns about disparities in the maximum term part of the sentence—the part about which there is, at present, no guidance. Given this reality, should the Commission provide guidance for the maximum term as well as the minimum term?

Creating both front and back end release guidelines that are complimentary also allows actuarial assessments that are not fixed over time. The standardized consideration of dynamic risk factors at parole will ensure that each instance of assessment will be independent and reflective of the relative risk at that time and prevent the front and back-end risk assessments from becoming duplicative or redundant. Should the current sentencing guidelines, built to provide a starting point for imposition of a minimum sentence, remain the model for cases where paroling decisions and time-served are becoming more closely associated with the maximum sentence? Perhaps the minimum terms, and opportunities for diversion, are the focus of guidelines for non-violent offenders, while the maximum term, with opportunities for more comprehensive programming by the Department of Corrections and more careful review by the Board of Probation and Parole, should be considered the new model for sentencing guidelines for high risk violent offenders?

4. Should the sentencing and parole guidelines reflect the differences in place of confinement and paroling authority? If so, how?

The changes to place of confinement rules that will take effect in November 2011 will likely change the characteristics of county jail and state prison inmate populations. Both types of facilities will have a higher percentage of less serious offenders relative to their previous baseline. Additionally, integrating risk assessments into the sentencing guidelines may also fundamentally change the characteristics of the group of offenders that would be targeted for incarceration in the first place. Further complicating this issue is the fact that Pennsylvania has sixty-three county correctional facilities, and rehabilitative programming in these facilities may vary greatly in terms of quality and efficacy. Creating a uniform

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set of guidelines to address this variation in a meaningful way will be difficult to accomplish.

The difference between the composition and roles of county jails versus state prisons also presents a complication that may need to be reflected in the sentencing guidelines. Decision-makers must also consider if, instead of viewing confinement as a single sentencing alternative, it could be considered as a series of decision points. This staged process would allow for a greater distinction, either through sentencing levels or recommended ranges, to be made between sentencing recommendations, including judicial specification regarding the use of county versus state sentences.

The Commission must also consider how, if at all, it should tailor the guidelines for discretionary parole release for individuals facing sentencing and parole, two increasingly dissimilar populations. The PBPP, while itself a large institution, is a single entity making parole release decisions for all state inmates, while hundreds of independently elected judges, spread all across the Commonwealth, make the parole release decisions for county inmates. While the PBPP functions may be more centralized, the Board members are far removed from the sentencing process and decision. Judges exercising paroling authority, on the other hand, are acting directly on cases they previously sentenced. Their experiences with, and understanding of, particular cases may vary significantly. It is essential that assessments made at the policy level consider how, if at all, state-wide parole guidelines should apply to these dispersed decision-makers faced with increasingly different populations, programs, resources and approaches to both retribution and rehabilitation. At first blush, it may seem logical to have two different guidelines—one for state and one for county parole release decisions. However, how should the underlying circumstances be reflected in the different guidelines? Additionally, it is unknown if a single set of guidelines could be meaningfully crafted to account for the divergent county level experiences.

XII. CONCLUSION

The integration of risk assessments and cost-benefit analyses into sentencing and parole does not mean abandoning the drive for equality and fairness. In fact, these tools are designed to assist in the transparent—and thus accountable—decision-making by both the Commission at the policy level and judges and the Board at the individual level. The Commission will be able to articulate its answers to the challenging questions set forth above and allow
judges and the Board to consider that advice. As noted, this does not remove the human elements of wisdom and moral judgment. Like the current, ad hoc use of gut-level, clinical risk assessment by sentencing judges, actuarial risk assessments will be but one factor within a sentencing and parole system where the judge, parole board members, and legislators maintain control.

The introduction and systematic use of risk assessment and cost-benefit analysis in Pennsylvania will not solve all of the problems facing the criminal and correctional systems, but it will be a large, evidence-based step in the right direction.