



**Administrative Office of the United States Courts  
Probation and Pretrial Services Office**

An Overview of the Federal Post Conviction Risk Assessment

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## Part A: Introduction

This article is intended to provide federal judges and legal practitioners with information regarding the Federal Post Conviction Risk Assessment (PCRA), a scientifically-based instrument developed by the Administrative Office of the United States Courts (hereafter, “the Administrative Office”). The purpose of the PCRA is to improve the effectiveness and efficiency of post-conviction supervision. The Administrative Office has not fully examined the use of risk assessment tools for other purposes, such as sentencing.

In September 2004, the Judicial Conference of the United States endorsed a “strategic approach” in which the federal probation system would be “organized, staffed, and funded in ways to promote mission-critical outcomes” such as the reduction of recidivism.<sup>1</sup> This endorsement was based in large part on recommendations that IBM Consulting Services and other study partners made in a comprehensive strategic assessment of the probation and pretrial services system (hereafter, “the Strategic Assessment report”).<sup>2</sup> Since then, the Administrative Office has taken numerous steps to further this strategic approach, including implementation of “evidence-based practices.” This term refers to “the conscientious use of the best evidence currently available to inform decisions about the supervision of individuals, as well as the design and delivery of policies and practices, to achieve the maximum, measurable reduction in recidivism.”<sup>3</sup>

A critical component of evidence-based practices is the use of an actuarial risk and needs assessment tool to identify: 1) which persons to target for correctional interventions, 2) what characteristics or needs to address, and 3) how to deliver supervision and treatment in a way that optimizes positive outcomes. While risk assessment devices have been used in the federal system

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<sup>1</sup> See JCUS-SEP 04, p. 15. The Judicial Conference of the United States, presided over by the Chief Justice of the United States, is the policy-making body of the federal judiciary. The Judicial Conference has 24 committees with responsibility for making recommendations in specified subject-matter areas. The Judicial Conference Committee on Criminal Law has responsibility for issues that affect the probation and pretrial services system.

<sup>2</sup> Throughout the 1980s and 1990s, the probation and pretrial services system grew significantly and absorbed major changes in responsibilities, populations, and organization. In 1999, the Director of the Administrative Office of the United States Courts, in consultation with the Chair of the Judicial Conference Committee on Criminal Law, sought an independent contractor to assess the cumulative effects of these changes and to develop recommendations to assist in planning for the effective delivery of services in the future. In September 2000, the AO entered into a contract with PricewaterhouseCoopers (later purchased by IBM) to conduct a strategic assessment of the federal probation and pretrial services system. Over the next several years, the independent assessment team gathered information from a large number of sources, including interviews of Criminal Law Committee members and other key judges and surveys of 225 judges, 129 chief probation and chief pretrial services officers, 130 other past and present system leaders, and 170 staff in the field. The team also interviewed congressional staffers, policy staff in the Department of Justice, and federal defenders. The assessment team conducted site visits involving 20 districts and examined thousands of documents, including statutes, financial records, policy statements, academic literature, and training manuals. The study team issued a series of recommendations in a 2004 report. See IBM Business Consulting Services et al., *Strategic Assessment: Federal Probation and Pretrial Services System* (2004).

<sup>3</sup> This definition was developed by the Administrative Office’s Working Group on Evidence-Based Practices, which was established to assist in implementing evidence-based principles in the federal probation and pretrial services system. It comprised representatives from the courts, the Federal Judicial Center, and the Administrative Office.

for decades, the PCRA has numerous added advantages and is consistent with the most current scientific research.

This article first describes the evidence-based practices principles that form the foundation for risk and needs assessment instruments. It then summarizes the extensive history of risk assessment in the federal probation system and discusses the purposes, development, and content of the PCRA. Last, the article discusses implementation issues such as training and certification and describes the Administrative Office's ongoing monitoring and research of the tool.

## **Part B: Overview of Evidence-Based Practices**

Social science research over the past several decades has consistently demonstrated that effective interventions in community corrections adhere to the principles of risk, need, and responsivity.<sup>4</sup> According to the risk principle, the level of correctional intervention should match the client's

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<sup>4</sup> See D.A. Andrews et al., *Does Correctional Treatment Work? A Clinically Relevant and Psychologically Informed Meta-Analysis*, 28 *Criminology*, no. 3, 1990 at 369; P. Gendreau et al., *Does "Punishing Smarter" Work? An Assessment of the New Generation of Alternative Sanctions in Probation*, 5 *Forum on Corrections Research*, no. 3, 1993 at 31; L. Simourd & D.A. Andrews, *Correlates of Delinquency: A Look at Gender Differences*, 6 *Forum on Corrections Research*, no. 1, 1994 at 26; M.W. Lipsey, *What Do We Learn From 400 Research Studies on the Effectiveness of Treatment with Juvenile Delinquents?* (1995), in *What Works? Reducing Reoffending – Guidelines from Research and Practice* 63-78 (James McGuire ed., 1995); P. Gendreau et al., *A Meta-Analysis of the Predictors of Adult Offender Recidivism: What Works!*, 34 *Criminology*, no. 4, 1996 at 48; M.W. Lipsey & D.B. Wilson, *Effective Intervention for Serious Juvenile Offenders: A Synthesis of Research* (1998), in *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions* 313-345 (R. Loeber & D.R. Farrington eds., 1998); C. Dowden & D.A. Andrews, *What Works in Young Offender Treatment: A Meta-Analysis*, 11 *Forum on Corrections Research*, no. 2, 1999 at 21; C. Dowden & D.A. Andrews, *What Works for Female Offenders: A Meta-Analytic Review*, 45 *Crime and Delinquency*, no. 4, 1999 at 438; S. Redondo et al., *The Influence of Treatment Programmes on the Recidivism of Juvenile and Adult Offenders: A European Meta-Analytic Review*, 5 *Psychology, Crime and Law* 251 (1999); Frank S. Pearson & Douglas S. Lipton, *A Meta-Analytic Review of the Effectiveness of Corrections-Based Treatment for Drug Abuse*, 79 *The Prison Journal*, no. 4, 1999 at 384; F.T. Cullen & P. Gendreau, *Assessing Correctional Rehabilitation: Policy Practice and Prospects* (2000), in *3 Policies, Processes, and Decisions of the Criminal Justice System* 109-175 (J. Horney et al. eds., 2000); P. Gendreau et al., *The Effects of Community Sanctions and Incarceration on Recidivism*, 12 *Forum on Corrections Research*, no. 2, 2000 at 10; M.W. Lipsey et al., *Cognitive Behavioral Programs for Offenders*, 578 *The Annals for the American Academy of Political and Social Science* 144 (2001); F.S. Pearson et al., *The Effects of Behavioral/Cognitive Behavioral Programs on Recidivism*, 48 *Crime and Delinquency*, no. 3, 2002 at 476; P. Gendreau et al., *What Works (What Doesn't Work) Revised 2002: The Principles of Effective Correctional Treatment* (2002) (unpublished manuscript) (on file with the International Community Corrections Association); C. Dowden et al., *The Effectiveness of Relapse Prevention with Offenders: A Meta-Analysis*, 47 *International Journal of Offender Therapy and Comparative Criminology*, no. 5, 2003 at 516; C. Dowden & D.A. Andrews, *The Importance of Staff Practices in Delivering Effective Correctional Treatment: A Meta-Analytic Review of Core Correctional Practices*, 48 *International Journal of Offender Therapy and Comparative Criminology* 203 (2004); D.B. Wilson et al., *Quantitative Review of Structured, Group-Oriented, Cognitive-Behavior Programs for Offenders*, 32 *Criminal Justice and Behavior*, no. 2, 2005 at 172; C.T. Lowenkamp et al., *The Risk Principle in Action: What Have We Learned From 13,676 Offenders and 97 Correctional Programs?*, 51 *Crime and Delinquency*, no. 2, 2006 at 1; D. Wilson et al., *A Systematic Review of Drug Court Effects on Recidivism*, 2 *Journal of Experimental Criminology*, no. 4, 2006 at 459; M.W. Lipsey & F.T. Cullen, *The Effectiveness of Correctional Rehabilitation: A Review of Systematic Reviews*, 3 *Annual Review of Law and Social Science* 297 (2007); O. Mitchell et al., *Does Incarceration-Based Drug Treatment Reduce Recidivism? A Meta-Analytic Synthesis of the Research*, 3 *Journal of Experimental Criminology*, no. 4, 2007 at 353; D.A. Andrews & James Bonta, *The Psychology of Criminal Conduct* 279 (4th ed. 2007); M. Nrdecka et al., *A Meta-Analysis on the Effectiveness of Juvenile Cognitive Behavioral Programs* (2008), in *Cognitive Behavioral Interventions for At Risk Youth* 14-1 (B. Glick ed., 2008).

risk of recidivism. Higher risk persons require more intensive services to reduce reoffending, while lower risk persons need less intervention. The risk level is determined by the presence or absence of criminogenic factors, which are personal characteristics and circumstances statistically associated with an increased chance of recidivism. Research has shown that actuarial devices in combination with professional judgment are generally more accurate and consistent than professional judgment alone, which is based solely on the experience and individualized assessment of clinicians, probation officers, and other criminal justice professionals.

Under the need principle, correctional interventions should target known and changeable predictors of recidivism (also referred to as “criminogenic needs”). These are factors that, when changed, are associated with changes in the probability of recidivism. Empirical research has shown that the needs most associated with criminal activity include antisocial attitudes, antisocial associates, impulsivity, substance abuse, and deficits in educational, vocational, and employment skills. While an assessment of overall risk suggests the level of correctional services that should be used, the assessment of criminogenic needs suggests the appropriate factors that should be changed to reduce recidivism. Though static factors such as criminal history are good predictors of offending, they do not identify what needs should be targeted to reduce reoffending.

Finally, according to the responsivity principle, interventions should involve the treatment modality most capable of changing known predictors of recidivism. Research has demonstrated that cognitive behavioral strategies are the most effective way to influence change. This modality is designed to alter dysfunctional thinking patterns through 1) explaining what cognitive behavioral therapy is and how it works to replace dysfunctional thinking; 2) role-playing and other scenario exercises to give clients practical experience in applying it, especially in situations that typically trigger dysfunctional responses; and 3) prosocial modeling and the proper use of authority by correctional officials and treatment providers. To increase the likelihood of positive effects on clients’ behaviors, interventions must also be delivered in a style and mode specifically suited to their learning styles and abilities. Characteristics such as intelligence, levels of anxiety, or mental health disorders may affect their learning styles, leading them to respond more readily to some techniques than to others. For instance, individual therapy may be more effective than group therapy for those with a high level of anxiety and social phobias. Responsivity factors may be relevant, not because they predict criminal conduct, but because they affect how supervision and treatment services are delivered and matched to clients to produce the best outcome.

The most advanced risk and needs assessment instruments incorporate the principles of risk, need, and responsivity by addressing all three components: 1) whom to target for correctional intervention, 2) what needs to address, and 3) how to remove barriers to successful implementation of a supervision and treatment plan.

### **Part C: History of Risk Assessment in the Federal Probation System**

Criminal justice agencies in the United States began using actuarial risk assessment instruments

for post-conviction supervision as early as 1923.<sup>5</sup> Federal judiciary policy in the 1970s required probation officers to “classify persons under supervision into maximum, medium, and minimum supervision categories dependent upon the nature and seriousness of the original offense, extent of prior criminal history, and social and personal background factors in the individual case.”<sup>6</sup> Survey data collected by the Administrative Office in 1974 and by the Federal Judicial Center (FJC) in 1977 indicated that federal probation officers were using a variety of statistical prediction tools.<sup>7</sup> The purpose of these instruments was to “assist case managers in making decisions about how much time and effort to devote to working with certain groups of persons.”<sup>8</sup> Federal probation supervision programs were “rationalized if attention [was] paid to risk of failure on probation or parole as established by the [prediction] scale. For example, a decision might be made to increase the supervision of those cases identified as high risk offenders.”<sup>9</sup>

In 1982, the FJC identified more than two dozen probation or parole prediction instruments in the federal probation system and evaluated the validity of four of these tools for classifying federal probation caseloads. The models selected for validation and comparative evaluation were: (1) the California BE61A (Modified) developed by the state of California; (2) the Revised Oregon Model developed by the United States Probation Office for the District of Oregon; (3) the United States Parole Commission’s Salient Factor Score (SFS); and (4) the U.S.D.C. 75 Scale developed by the United States Probation Office for the District of Columbia.<sup>10</sup> The term “caseload classification” was defined as “the process of organizing individual clients into supervision categories based on the nature and severity of the offense of conviction, extent of prior criminal history, and other personal characteristics, needs, and problems.”<sup>11</sup> The FJC noted at the time that caseload classification:

is one of the most critical stages of the supervision process. A probation or parole prediction model holds considerable prospect as a tool for assisting the probation officer in deciding how much

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<sup>5</sup> See James B. Eaglin & Patricia A. Lombard, *A Validation and Comparative Evaluation of Four Predictive Devices for Classifying Federal Probation Caseloads* 9 n. 6 (1982) (citing E. Burgess, *The Workings of the Indeterminate Sentence Law and the Parole System* (1928); L. Ohlin, *Selection for Parole* (1951); Hart, *Predicting Parole Success*, 14 *Journal of Criminal Law & Criminology* 405-413 (1923); Tibbits, *Success and Failure on Parole Can Be Predicted*, 22 *Journal of Criminal Law & Criminology* 11-50 (1931); Warner, *Factors Determining Parole from the Massachusetts Reformatory*, 14 *Journal of Criminal Law & Criminology* 172-207 (1923)).

<sup>6</sup> See Administrative Office of the U.S. Courts, *Guide to Judiciary Policies and Procedures*, X-A Probation Manual, no. 7, Feb 15, 1979 at § 4004.

<sup>7</sup> See Eaglin & Lombard, *supra* note 5, at 1.

<sup>8</sup> See William E. Hemple et al., *Researching Prediction Scales for Probation*, 40 *Fed. Probation* 33, 33 (1976).

<sup>9</sup> *Id.*

<sup>10</sup> See Eaglin & Lombard, *supra* note 5.

<sup>11</sup> *Id.* at 13.

time and effort should be devoted to various categories of offenders. It is through the process of classifying his or her caseload that the officer should arrive at a determination regarding the extent of supervisory attention each offender should receive.<sup>12</sup>

The instruments studied by the FJC took into account information related to the client's criminal history, age, employment, education, residential stability, and drug or alcohol involvement. The study's major recommendation was that the tool used by the District of Columbia (the "U.S.D.C. 75 Scale") be implemented nationally to assist officers in classifying probation caseloads. This recommendation was based primarily on the statistical tool's "potential for improved accuracy in prediction" over a "purely subjective" non-statistical classification technique.<sup>13</sup> After field testing and some modification, the Administrative Office adopted this tool for system-wide use and renamed it the Risk Prediction Scale 80 (RPS-80).

In 1991, the Judicial Conference Committee on Criminal Law asked that the FJC develop a new risk assessment tool for the federal probation system out of concern that the instruments in use at that time (the RPS-80 for probation supervision and the SFS for parole supervision) were losing predictive accuracy.<sup>14</sup> The FJC developed the Risk Prediction Index (RPI) based on a multivariate regression analysis of a sample of 2,651 supervision cases.<sup>15</sup> Several steps were involved in the construction of the model, including evaluating the strength of the relationship of individual items to recidivism, which was defined as any rearrest or revocation of supervision.<sup>16</sup>

The FJC compared the predictive ability of the RPI model to that of the RPS-80 and the SFS for supervisees in the construction sample and found that the RPI correlation coefficients were consistently higher and less variable (average of .38 and spread of .06) than the RPS-80 (average

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<sup>12</sup> *Id.*

<sup>13</sup> The recommendation was also based on the statistical model's "consistency in classifying offenders and its potential for enhancing the prospects of future research on supervision." Specifically, it was anticipated that the use of a statistical prediction device would "allow a measure of policy control over specific items and the weight each is to be given in the classification decision," and would "allow for data gathering that can ultimately be used to improve the classification process, a benefit that would not necessarily result if purely subjective classification techniques were to continue to be used." *Id.* at 59.

<sup>14</sup> See Pat Lombard & Laural Hooper, Federal Judicial Center, *RPI FAQs Bulletin*, Aug. 1998 at 5.

<sup>15</sup> The FJC identified a national sample of 3,009 offenders who, in 1989, were accepted for active supervision after release from imprisonment or upon the imposition of probation. These offenders constituted an 8 percent systematic random sample of all offenders received for supervision in 1989. The Center also added to the sample all Native American offenders (502) and all sex offenders (238) who were received for supervision in 1989 but were not included in the systematic sample. This resulted in a total research sample of 3,749 offenders. Extensive data were collected on more than 3,300 of these offenders directly from case files. However, only offenders from the systematic sample, which similarly included 8 percent of the Native American and sex offender populations, were used to do the model-building analyses; full data were collected on 2,651 of those offenders. See James B. Eaglin et al., Federal Judicial Center, *RPI Profiles: Descriptive Information About Offenders Grouped by Their RPI Scores*, May 1997 at 21.

<sup>16</sup> See Lombard & Hooper, *supra* note 14, at 5.

of .30 and spread of .14) or SFS (average .30 and spread .08) correlations.<sup>17</sup> The model was also field-tested in 11 districts, and scores were calculated for a verification sample of 278 persons who had terminated supervision in 1995. The FJC found that “[t]he distribution of scores for the verification sample was consistent with the distribution seen in the construction sample; the recidivism patterns by RPI score were consistent with the expected patterns; and the correlation coefficient for the verification sample (.54) was higher than those achieved in the construction sample.”<sup>18</sup>

Scores in the RPI range from 0 to 9, with low scores associated with low recidivism rates and high scores associated with high recidivism rates. While the RPI score for a particular person is “not a definitive prediction that the offender will or will not recidivate,”<sup>19</sup> knowing the recidivism for other similarly situated persons “should help an officer identify the appropriate level of risk control to use with the offender.”<sup>20</sup> The RPI includes information about the age at the start of supervision, number of prior arrests, whether a weapon was used in the instant offense, employment status, history of drug and alcohol abuse, whether the person ever absconded from supervision, whether the person has a college degree, and whether the person was living with a spouse and/or children at the start of supervision. In 1997, the Judicial Conference approved the use of the RPI and the Administrative Office required that it be calculated for all persons at the beginning of supervision.<sup>21</sup>

#### **Part D: Development of the Federal Post-Conviction Risk Assessment**

One of the recommendations of the Strategic Assessment report was that the federal probation system investigate how to make “[b]etter use of data-driven tools.”<sup>22</sup> An important shortcoming of the RPI, according to the study, is that its factors are static and “do not enable an officer to regularly assess changes in the risk posed by the offender.”<sup>23</sup> Second, the RPI is “not tied to case

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<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> As the FJC explained: “The RPI score represents a broad estimate of the proportion of offenders with that score who will recidivate. For example, in theory, without referring to any specific sample of offenders, we would estimate that about 40% (actually in the range of 35% to 44%) of all offenders who receive a score of 4 will recidivate. Similarly, we would estimate that about 80% (i.e., between 75% and 84%) of the offenders who receive a score of 8 will recidivate.... Thus, the theoretical score-by-score estimates are helpful in getting a general idea of the recidivism rates that are likely to be associated with each score, but variations from a clear increasing pattern should be expected. In addition, remember that the RPI cannot predict with certainty whether an individual offender will recidivate or not. That is, it cannot pinpoint whether someone who receives a score of 4 will be among the 60% of offenders who succeed or the 40% who recidivate.” *See* Eaglin et al., *supra* note 15, at 2.

<sup>20</sup> *Id.* at 1.

<sup>21</sup> *See* JCUS-MAR 97, p. 21; Memorandum from Eunice R. Holt Jones to all Chief Probation Officers (Sept. 19, 1997) (on file with the Administrative Office of the U.S. Courts)(regarding implementation of the Risk Prediction Index).

<sup>22</sup> *See* IBM Business Consulting Services et al., *supra* note 2, at A21.

<sup>23</sup> *Id.*

management, and so [it] does not suggest actions to be taken by officers in managing risk.”<sup>24</sup> While the purpose of the RPI is to aid officers in developing a case supervision plan, it is unclear how this can be accomplished.<sup>25</sup> The newer generation of risk and needs assessment instruments offers several advantages over older tools such as the RPI, including the ability to detect change in risk over time, identification of future criminal drivers, and a direct connection between the actuarial assessment tool and a supervision case plan.<sup>26</sup> Given these advances in risk assessment technology, the Strategic Assessment report recommended that the Administrative Office research tools used in other jurisdictions and “adopt proven case management practices.”<sup>27</sup>

The Administrative Office met with developers of some of the most advanced risk and needs assessment tools, including the Level of Service/Case Management Inventory (LS/CMI), the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS), and the Risk Management Systems (RMS), and it initiated pilot programs for five federal districts to experiment with the commercially-available instruments. It also assembled a panel of experts from government agencies and academic institutions to examine whether to purchase an existing instrument or build a new one. The Administrative Office determined that creating an instrument with data specific to the federal probation system was preferable. This decision was based on numerous factors, including the high cost of commercially available tools, the fact that other tools were developed based on data from outside the federal probation system, the fact that an Administrative Office-built instrument would be more easily modified to improve its accuracy based on ongoing assessment and research, and the fact that no existing tool included some of the most important predictors of criminal behavior, such as antisocial values and attitudes.

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<sup>24</sup> *Id.*

<sup>25</sup> See Scott VanBenschoten, Office of Probation and Pretrial Services, Administrative Office of the U.S. Courts, *Risk/Needs Assessment: Is This the Best We Can Do?*, Federal Probation, Sept. 2008 at 38, 39.

<sup>26</sup> *Id.* The most modern form of risk and needs assessment instruments are often referred to as “fourth generation” tools. See Andrews & Bonta, *supra* note 4, at 285. In first generation assessment, a criminal justice professional makes a decision about risk level based on professional experience and intuition. Under second generation assessment, prediction of offender behavior is based on an empirically-based instrument that summates risk factors and places offenders in different subgroups based on their probability of recidivism. An example of a second generation instrument is the Salient Factor Score. While second generation assessment is demonstrated by research to be more accurate than first generation methods, a major limitation is focus on static rather than dynamic factors, which do not provide relevant information about what needs to be changed to reduce an offender’s level of risk. *Id.* at 286. Third generation assessments systematically and objectively measure changeable criminogenic needs, which increases the utility for criminal justice agencies. An example is the Level of Service Inventory-Revised (LSI-R), a risk/need offender assessment that samples 54 risk and needs items (e.g., antisocial associates, antisocial attitudes, etc.) demonstrated by research to be associated with criminal conduct across 10 domains (criminal history, education, employment, etc.). Third generation tools are intended to assist in allocating supervision resources (risk principle) and targeting intervention (need principle). *Id.* at 291. Fourth generation assessment goes several steps further by emphasizing the link between assessment and case management, acknowledging the role of responsivity factors to maximize the benefits from treatment intervention, and monitoring the case from the beginning to the end of supervision. An example of a fourth generation instrument is the Level of Service/Case Management Inventory (LS/CMI). *Id.* at 292.

<sup>27</sup> See IBM Business Consulting Services et al., *supra* note 2, at A21.



In 2009, the Administrative Office employed Christopher T. Lowenkamp, Ph.D., a nationally recognized expert in risk assessment and community corrections research, to develop an instrument for the federal probation system. The goal was to create a tool that provides information about whom to target for intensive supervision and programming (the risk principle), what factors to target for change (the needs principle), and how to remove barriers that hinder the effective delivery of services (the responsivity principle). Unlike past generations of assessment instruments that include static factors and focus only on measuring risk and classifying persons convicted of crimes, this tool, like many modern instruments used in other jurisdictions, includes the dynamic factors most associated with recidivism (e.g., antisocial attitudes and associates) and allows regular reassessment so that officers can determine if supervision strategies are in fact reducing risk of recidivism. It can also directly inform the supervision and treatment plan by identifying the necessary level of supervision, the most pressing criminogenic needs, and the possible obstacles to correctional intervention. Finally, it can assist the Administrative Office in understanding the nature of the population of persons under supervision and in strategically directing resources to target the appropriate persons and needs with the correct services.

Dr. Lowenkamp and other Administrative Office researchers constructed and validated the PCRA using data collected through the Probation/Pretrial Services Automated Case Tracking System (PACTS), existing risk assessments from the five federal districts with pilot risk assessment programs,<sup>28</sup> criminal history records, and presentence reports. The Administrative Office researchers constructed and validated the PCRA from three samples: a construction sample and two validation samples. The construction sample and the first validation sample were taken from data obtained from the initial case plan for persons under supervision.<sup>29</sup> The second validation sample was taken from subsequent case plans. Both the construction (N=51,428) and first validation (N=51,643) groups comprised persons who started a term of supervised release or probation on or after October 1, 2005. The second validation sample included 193,586 persons.

Bivariate and multivariate analyses were used to determine the most predictive elements for inclusion in the instrument, including criminal history, education, employment, substance abuse, social networks, and cognitions. Law enforcement records were used to identify any new arrests after the start of supervision. Four risk categories were identified based on the statistical analysis: low, low/moderate, moderate, and high. In all three samples, low and low/moderate risk persons accounted for at least 85 percent of the cases. Much smaller percentages were identified in each sample as moderate and high risk (approximately 12 percent and 1 percent, respectively).

A statistical technique known as the “area under the curve” (AUC) was used to measure the accuracy of the PCRA in predicting recidivism based on risk category. The AUC measures the probability that a score drawn at random from one sample or population (e.g., a recidivist’s score) is higher than that drawn at random from a second sample or population (e.g., a

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<sup>28</sup> The development of the instrument was based on 400 RMS assessments and 100 COMPAS assessments from the five federal districts.

<sup>29</sup> According to national judiciary policy, case plans, which describe the supervision strategies and objectives for a specific person under supervision, are to be developed within 30 to 60 days of the start of the supervision term. They are then formally evaluated after six months of supervision and every subsequent year.

nonrecidivist's score).<sup>30</sup> The AUC can range from .0 to 1.0, with .5 representing the value associated with chance prediction. Values equal to or greater than .75 are considered large.<sup>31</sup> The AUC for the PCRA when originally developed ranged from .709 to .783, which placed it among the most accurate instruments in the field of criminal risk and needs assessment.<sup>32</sup>

In 2014, the Administrative Office began developing the PCRA 2.0, which assesses the probability not only of offending generally, but of committing a violent offense.<sup>33</sup> To develop the violence risk assessment, probation officers from throughout the country and Administrative Office staff analyzed a sample of 1,642 cases. For each case, a significant amount of data was collected from presentence reports and other case management records to identify possible indicators of violent offending (referred to as "violence flags"). Administrative Office staff subsequently conducted statistical analyses to identify and validate factors associated with violent offending and developed a series of violence risk categories. The analyses revealed that the use of the violence flags in conjunction with the PCRA allows for greater accuracy in identifying individuals at increased risk of violence.<sup>34</sup>

## **Part E: Content of the Federal Post-Conviction Risk Assessment**

The PCRA 2.0 consists of two sections. One section is completed by the probation officer (Officer Assessment), and the other section is completed by the person under supervision (Self-Assessment). It includes both "scored items" and "unscored items." Scored items have been demonstrated by the Administrative Office's empirical research to be statistically significant predictors of recidivism, and they contribute to the tool's final conclusion regarding risk level and criminogenic needs. Unscored items have been shown by other empirical research to be predictors of recidivism but have not been studied by the Administrative Office in federal cases due to the lack of necessary data. They are included for data collection purposes and to inform the instrument's final conclusion regarding criminogenic needs and responsivity factors (barriers to supervision and treatment), but not risk level. If the unscored items prove to be predictive of

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<sup>30</sup> See M.E. Rice & G.T. Harris, *Comparing Effect Sizes in Follow-Up Studies: ROC Area, Cohen's d, and r*, 29 *Law and Human Behavior*, no. 5, 2005 at 615.

<sup>31</sup> See M. Dolan & M. Doyle, *Violence prediction: Clinical and Actuarial Measures and the Role of the Psychopathy Checklist*, 177 *British Journal of Psychiatry* 303 (2000).

<sup>32</sup> For a frame of reference, it is helpful to consider the risk factors for a heart attack (e.g., high levels of bad cholesterol, smoking, and hypertension). These risk factors were identified in a study that followed approximately 5,000 people over a 12-year period. When the risk factors are combined, the AUC falls between .74 and .77. See Andrews & Bonta, *supra* note 4, at 276 (citing W.F. Wilson et al., *Prediction of Coronary Heart Disease Using Risk Factor Categories*, 97 *Circulation Journal of the American Heart Association* 1837 (1998)). While perfect prediction is an impossibility in both the medical and criminal justice fields, the knowledge of risk has practical value. *Id.*

<sup>33</sup> Violent offending was defined as having an arrest for arson, domestic violence, robbery, simple assault, aggravated assault, and homicide. Violent sex offenses were not included due to insufficient data. For a detailed description of how the PCRA 2.0 was developed and validated, see Ralph C. Serin, Christopher T. Lowenkamp, James L. Johnson, and Patricia Trevino, *Using a Multi-Level Risk Assessment to Inform Case Planning and Risk Management: Implications for Officers*, Federal Probation, Sept. 2016.

<sup>34</sup> When predicting rearrest for violent offenses, the PCRA 2.0 generates high AUC values ranging from .79 to .82.

recidivism by the Administrative Office’s research, they may contribute to risk level determination in future modifications of the tool.

The PCRA 2.0 contains 25 scored items and 38 unscored items. Information for all scored items and the majority of unscored items is obtained as part of the Officer Assessment based on the interviews and a review of file documents. The Self-Assessment is currently used only for 12 unscored items under the “cognitions” domain. The PCRA 2.0 includes information from the following seven domains:

Criminal History	6 scored items
Education/Employment	3 scored items
Substance Abuse	2 scored items, 3 unscored items
Social Networks	3 scored items, 2 unscored items
Cognitions	1 scored item, 12 unscored items
Violence Assessment	10 scored items, 7 unscored items
Responsivity Factors	14 unscored items

The criminal history domain includes: (1) the number of prior misdemeanor and felony arrests; (2) whether there are prior violent offenses; (3) whether there is a varied (more than one offense type) offending pattern; (4) whether there has been new criminal behavior or violations while under supervision; (5) whether there has been problematic institutional adjustment while imprisoned; and (6) the person’s age at the time of the assessment.<sup>35</sup> The education and employment domain includes measures for: (1) the highest education level achieved; (2) employment status; and (3) work history and stability over the past 12 months.

Drug and alcohol use is measured by: (1) whether there are disruptions at work, school, and home due to drug or alcohol use; (2) whether the person uses drugs or alcohol when it is physically hazardous; (3) whether the person continues to use drugs or alcohol despite social and interpersonal problems; and (4) whether a current drug or alcohol problem exists. Under the social networks category, the officer assesses: (1) marital status; (2) relationship status with a

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<sup>35</sup> Arrests were selected as the measure of criminal history rather than prior convictions or imprisonments for two reasons. First, arrest data are more accessible and complete. See Michael D. Maltz, Dept. of Criminal Justice & Dept. of Information of Decision Sciences, University of Illinois at Chicago, *Recidivism* (1984) available at <http://www.uic.edu/depts/lib/forr/pdf/crimjust/recidivism.pdf>. Second, “criminologists have generally assumed that arrest is the most valid measure of frequency of offending that can be gained from official data sources” because arrests are “much closer in occurrence to the actual behavior [criminologists] seek to study and are not filtered by the negotiations found at later stages of the legal process.” See David Weisburd & Chester Britt, *Statistics in Criminal Justice* 24 (3d ed. 2007).

significant other; (3) whether there is an unstable family situation; (4) the nature of the person's relationship with peers; and (5) whether the person lacks positive prosocial support.

Turning to the cognitions domain, the officer is directed to assess the person's attitude toward supervision and change. The person under supervision also completes an 80-question self-assessment, which is discussed further below. The violence risk assessment includes the following factors: (1) whether the instant offense includes general violence, domestic violence, any type of sex offense, or failure to register as a sex offender; (2) the person's age at first contact with the criminal justice system; (3) whether the person has prior arrests for general violent criminal conduct, domestic violence, sexual assault, stalking, menacing, harassing, or threatening, or arrests for violating a restraining or personal protection order; (4) whether there is evidence that the person has pre-planned past violent criminal conduct; (5) whether the person has used a weapon in the commission of a crime; (6) whether the person has victimized a stranger during past violent conduct; (7) whether there are previous sexual assaults of unrelated male victims under the age of 17; (8) whether the person is a gang member or affiliated with a gang; (9) whether the person experienced a breakup with a significant other in the six months preceding the assessment; (10) whether there is a history of polysubstance abuse; (11) whether the person has been prescribed psychotropic medication at the time of sentencing, while incarcerated, or at the time of the assessment; (12) whether the person had been admitted to a hospital or psychiatric institution for mental health reasons; and (13) whether the person has been noncompliant with treatment in the six months preceding the assessment.

Finally, for the responsivity factors domain, the officer is directed to assess: (1) low intelligence; (2) physical handicap; (3) reading and writing limitations; (4) mental health issues; (5) no desire to change/participate in programs; (6) homelessness; (7) transportation; (8) child care; (9) language; (10) ethnic or cultural barriers; (11) history of abuse/neglect; and (12) interpersonal anxiety.

The Self-Assessment section of the PCRA 2.0 is based on the Psychological Inventory of Criminal Thinking Styles (PICTS), which was developed by Glenn Walters, Ph.D. The PICTS is a quantifiable instrument that provides a reliable and valid method to assess thinking styles. It is an 80-item self-report measure of thinking styles created to provide clinicians and criminal justice professionals with information about how a person thinks, which can be valuable for treatment and supervision purposes. It is designed to assess the following seven thinking styles hypothesized to support and maintain criminal activity:

1. Mollification: A tendency to project blame for past and present criminal conduct onto external factors (e.g., family upbringing, poverty, the government). The focus of intervention for those with this thinking trait is to encourage them to stop externalizing blame and start taking responsibility for their actions and decisions, including accepting responsibility for the negative consequences of their actions and decisions.
2. Cutoff: A measure of impulsivity and the tendency to use phrases like "screw it" to eliminate common deterrents to crime. Drugs and alcohol are also sometimes employed as cutoffs. The solution to cutoff thinking is to help the respondent develop such skills as patience, tolerance, and emotional control.

3. Entitlement: A sense of ownership, privilege, and uniqueness that is used by the individual to grant him or herself permission to violate the laws of society and the rights of others. Misidentification of wants as needs is another aspect of entitlement. Entitlement can perhaps best be challenged by suggesting the creation of a personal inventory of values and expectancies and helping clients distinguish between wants and needs.
4. Power orientation: An attempt to exert maximum control over the external environment at the expense of personal or internal control. When not in control of the external environment, some will engage in a power thrust whereby they put another person down in order to feel better about themselves. Focusing on the development of personal control and self-discipline is one way to overcome the external emphasis of the power orientation.
5. Superoptimism: The belief that one will be able to indefinitely postpone or avoid the negative consequences of criminal activity (incarceration, injury, death). The best way to expose superoptimism is to point out the different ways the individual has been unable to escape the negative consequences of his or her criminal actions (e.g., jail, prison, probation, loss of family or job).
6. Cognitive indolence: The tendency to take shortcuts and look for the easy way around problems. Such individuals are often enmeshed in controversy because their shortcuts invariably get them into trouble with those to whom they are accountable (supervisor, parent, spouse). Those with this thinking style are frequently described as lazy, unmotivated, and irresponsible.
7. Discontinuity: The propensity to lose sight of one's goals and to be easily sidetracked by environmental events. Respondents who elevate on this scale often come across as fragmented, flighty, and unpredictable. Discontinuity is the most difficult of the eight thinking styles to confront, because the individual is often oblivious to the inconsistency evident in his or her own thinking. Training in goal-setting can be helpful in combating this thinking style.

The PICTS also includes the "General Criminal Thinking" score, which is the sum of the raw scores for the items in the self-assessment that make up the seven PICTS thinking style scales. Finally, the PICTS includes the "Proactive Criminal Thinking" composite scale and the "Reactive Criminal Thinking" composite scale, which identify the mode of criminal thinking to which an individual subscribes and may potentially lead to valuable information for treatment and supervision. Proactive thinking is goal-directed. Persons who are proactive tend to expect positive things to come from their criminal behavior such as money, status, and power. Others may describe them as devious, callous, calculating, and cold-blooded. Reactive thinking involves reactions to a situation rather than planned behavior. Persons who are reactive view the world suspiciously and misinterpret others as hostile. Others may describe them as impulsive, emotional, and hot-blooded.

The PICTS instrument does not ask respondents about specifically identifiable events and does not require a “yes” or “no” answer. Once the PICTS instructions have been read and the evaluator has answered all of the respondent’s questions, the respondent is instructed to read and rate (using the four-point scale described on the test form: 4 = strongly agree, 3 = agree, 2 = uncertain, 1 = disagree) each of the 80 PICTS items, trying not to leave any items blank. If more than five items are left blank, the computer-based testing system will inform the officer that a valid test cannot be completed and a result cannot be reached. There is no time limit for completion of the inventory, though respondents should be able to finish in 15 to 30 minutes under normal circumstances. Instructions for completion are printed at the top of the test form and the officer is advised to instruct the respondent to read the instructions out loud so that a general reading level can be gauged. A respondent should be able to read at the sixth-grade level or higher to register a valid PICTS protocol. The officers are instructed not to examine or interpret individual answers on the PICTS. Rather, the PICTS uses a complex set of algorithms based on the collective answers to the questions to produce an output about the respondent’s thinking style.

After the Officer Section and the Self-Assessment are completed, an output page is produced that lists the person’s risk category for both general and violent recidivism, the person’s criminogenic needs, and the person’s responsivity factors. The person’s general recidivism risk level is determined based on the scored items in the first five domains listed above. The risk level for violent recidivism is determined based on the scored items in the violence domain. These scores are used to place the person into one of four general risk categories (Low, Low/Moderate, Moderate, and High) and three violence risk categories (Category 1, 2, or 3). The majority of the persons under federal supervision fall into the Low or Low/Moderate categories on the general recidivism risk measure and in the lowest of the three categories on the violence assessment tool. The Administrative Office’s research indicates that, with each increase in risk category, the probability of failure (rearrest and revocation) increases. The general and violent arrest rates (based on a research data set) for the different risk categories in the PCRA 2.0 are presented below.

		PCRA Risk to Commit a Violent Act		
		Category 1	Category 2	Category 3
PCRA Risk Level	Low	L1	L2	L3
		Any Crime = 9% Violent Crime = 1%	Any Crime = 5% Violent Crime = 0%	N/A
	Low/Mod	LM1	LM2	LM3
		Any Crime = 23% Violent Crime = 2%	Any Crime = 29% Violent Crime = 8%	Any Crime = 42% Violent Crime = 16%
	Moderate	M1	M2	M3
		N/A	Any Crime = 43% Violent Crime = 11%	Any Crime = 54% Violent Crime = 21%
	High	H1	H2	H3
		N/A	N/A	Any Crime = 53% Violent Crime = 24%

In some cases, officers can deviate from the PCRA 2.0 risk category through a “policy override” for the following categories if officers believe that the PCRA 2.0 risk score is not appropriate: sex offenders, persistently violent offenders, offenders with severe mental illness, and youthful offenders with extensive criminal histories. Officers are also permitted to deviate from the PCRA 2.0 risk level for other reasons through a “discretionary override,” though these require a comprehensive justification. Any type of override requires the approval of a supervising officer.

In addition to the risk category, the output page lists the criminogenic needs that should be targeted for change for each person. Finally, the PCRA 2.0 informs officers about responsivity factors that should be taken into consideration when formulating the supervision plan. Responsivity factors are not predictors of future criminal behavior, but they can present barriers to the supervision and service delivery process. The officer is encouraged to share the PCRA 2.0 output results with the person under supervision and discuss which risk factors will be addressed and the appropriate treatment and supervision plan.

## **Part F: Training, Certification, and Empirical Research**

The Administrative Office in conjunction with an advisory group of chief probation officers from throughout the country have determined that, to ensure the correct application of the PCRA 2.0 scoring rules, those probation officers who attend in-person training and subsequently pass online certification tests can access the PCRA 2.0. The 16-hour training covers the principles of risk, need, and responsivity, provides a detailed overview of the PCRA 2.0 scoring rules, gives officers time to practice applying the tool to test cases, and examines the relationship between the instrument and the supervision plan. The sessions are taught by Administrative Office staff members with the assistance of probation officers from local districts that are certified in administering the tool. The Administrative Office’s PCRA 2.0 training manual provides the purpose behind each of the scoring items, the scoring rules themselves, sample questions, interviewing strategies, case planning considerations, and citations to social science research discussing the relationship between each scored or unscored item and recidivism. Items are scored by officers based on official records, self-reported information from the person under supervision, and the officers’ professional judgment.

After the initial training, officers are required to complete an online certification process before administering the PCRA 2.0. Once certified, they must re-certify annually to ensure that they are correctly interpreting and implementing the tool. Certification consists of a computer-based examination where the officer is directed to complete PCRA 2.0 scoring sheets based on videos of hypothetical interviews with persons under supervision and supporting documentation such as presentence reports and Bureau of Prisons records on institutional adjustment. Officers who fail the examination are required to take an online course until they pass. The Administrative Office collects data on the certification examination process, which informs efforts to modify and improve the training curriculum as well as the content of the instrument in future iterations of the tool. The Administrative Office also conducts ongoing social science research to monitor, analyze, and improve the effectiveness of the PCRA 2.0 as more data are obtained. In recent

years, it has conducted research on a significant number of issues, including assessing the tool's scientific validity and reliability.<sup>36</sup>

## **Part G: Conclusion**

Federal probation officers are statutorily required to “use all suitable methods, not inconsistent with the conditions specified by the court, to aid a probationer or a person on supervised release who is under his supervision, and to bring about improvements in his conduct and condition.”<sup>37</sup> Social science research suggests that several practices contribute to achieving behavioral change: 1) intensive correctional interventions should be directed to higher risk rather than lower risk persons under supervision (risk principle), 2) dynamic risk factors should be targeted for change (need principle), and 3) strategies such as cognitive behavioral treatment should be delivered in a way that is specifically responsive to the characteristics of the individual (responsivity principle). Research has also demonstrated that empirically-based instruments provide a more effective and consistent method for making decisions than relying solely on a probation officer's experience and intuition.

While risk assessment has been used in the federal probation system for several decades, the PCRA 2.0 is based on a data set of unprecedented size that is representative of the population of persons under supervision. It is also consistent with contemporary scientific research, since it adheres to the principles of risk, need, and responsivity. Assessment information is used not only to measure risk to determine the appropriate supervision level but to change risk as well. Because it includes dynamic risk factors, the PCRA 2.0 allows officers to identify needs that should be targeted for change. Additionally, it provides officers with the ability to detect whether positive change successfully occurs over time through regular reassessment and to determine whether intervention strategies are effective. Finally, the PCRA 2.0 provides important information that should be integrated into the supervision and treatment plan.

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<sup>36</sup> For a specific description of the social science research, see Federal Post-Conviction Risk Assessment Research Compendium, March 2018, also available on [uscourts.gov](http://uscourts.gov) website.

<sup>37</sup> See 18 U.S.C. §3603(3).