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RISK CLASSIFICATION IN THE 1990s

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In all likelihood, correctional historians will one day view risk assessment as the most important correctional revolution of this century (Feeley & Simon, 1992). Since the introduction of the first widely used risk assessment instrument, approximately 25 years ago, the practice of risk assessment has expanded to other correctional agencies, including prisons, jails, probation, and halfway houses and to adult and juvenile institutions. While other correctional innovations come and go, risk assessment continues to change the face of correctional practice. In making it possible to identify high risk offenders for more intense supervision, risk classification facilitates the supervision of a broader and larger group of offenders in the community rather than in prison settings. In many jurisdictions, risk classification assists day-to-day criminal justice decision-making: providing crucial information at such system gates as bail, early release, and sentencing, and helping correctional personnel determine supervision level, institutional transfers, treatment recommendations, and living assignments. Without risk classification,

intermediate sanctions could not have been envisioned. Most recently, risk classification has guided researchers and treatment practitioners to the discovery that the greatest potential for success rests with the high risk offender. It makes good sense, in other words, to focus our intensive intervention and supervision resources on high risk juvenile and adult offenders.

The same 25 year history reveals methodological changes in risk assessment that have improved the accuracy and applicability of risk classification systems. Since the first wave of risk assessments models, which were developed for adult males, classification models are now available for juveniles and are being tested among female offender populations. Most recently, risk assessment has evolved beyond the task of identifying high risk offenders for security purposes alone. In changing the nature of the risk factors used, classification models now serve a dual function of facilitating treatment as well as custody and security purposes. Finally, we are learning how to improve the technology of risk classification and its application.

This monograph describes the current state of offender risk classification, where we have been and where we are now. We review several models for risk classification as they fit different correctional purposes, populations, and the current state of correctional practice. The intent of the authors and of the National Institute of Corrections, is to furnish a consumer's guide to risk assessment. We seek to present options, review issues, identify potential misapplication of risk assessments, and to promote the knowledgeable and proper use of available technology.

A DEFINITION OF TERMS: WHAT IS RISK CLASSIFICATION?

At its broadest level of meaning, risk classification refers to the prediction or identification

of those individuals most likely to "get into trouble" during a certain period of criminal justice supervision, e.g., while ROR, on probation or parole supervision, even while incarcerated. What "trouble" means, of course, varies by correctional jurisdiction and purpose. "Trouble" for a pretrial service agency encompasses any new crimes an arrestee might commit, but it also refers to the likelihood of even the crime free arrestee's return for further criminal justice processing. In community corrections "trouble" refers to the likelihood of a new offense, or even to a revocation for failure to abide by the conditions of supervision. Trouble in an institutional setting is seen in the inmate who escapes or commits an act of violence, but risk classification here also taps inmates who are likely to commit acts of insubordination while incarcerated. Regardless of the agency, risk assessment prioritizes trouble as trouble for the community and trouble for the efficient and safe management of the agency.

Ideally, we would like also to predict the most severe forms of trouble, such as future violence or future sex offending behaviors. But while research is moving in the direction of predicting violence or more specific types of offenses, the prevailing risk classification technology is most adept at assisting us in the identification of a more general group of high risk offenders. Due to the methodological and statistical problems associated with predicting rare events (see Clear, 1988; Gottfredson, 1987b; Monahan, 1981), risk classification is not widely used for identifying specific types of offenders, at least not in any way that we can express general confidence in.

Actuarial vs. Clinical Prediction of Trouble. Until recently, predictions of problem behaviors were made by correctional specialists on the basis of clinical judgment formed through their knowledge of the case, their understanding of criminal behavior, and their experience with

similar offenders. Since the early 1970s, however, the assessment of risk has increasingly involved the use of actuarial assessments or risk "scores" representing total scores across factors or variables that predict future trouble. As cigarette smoking and genetic predisposition empirically predict heart disease, so does history of revocations, numerous prior offenses, and drug or alcohol addiction predict recidivism; persons who score high on the latter dimensions are considered to be "at risk" of future offending behaviors. In this sense, risk classification in corrections parallels risk assessment in medicine and insurance. The actuarial tests or classification systems, in corrections, rest on three factors:

- o There are individual characteristics, traits, and behaviors that are statistically correlated with (predictive of) new offenses or other forms of trouble.
- o The more risk factors one evidences, the greater one's likelihood of future offending or other forms of trouble (see Andrews & Bonta, 1994). In other words, the factors have a cumulative effect that can be arithmetically summed to form a "risk score"; the higher the score, the higher the risk.
- o Research shows, rather conclusively, that actuarial or statistical risk prediction, when properly validated and administered, are more accurate than clinical predictions (Gottfredson, 1987a; Meehl, 1954; Sawyer, 1966).

In pages that follow, we put forward several different models of risk classification. Notwithstanding their differences, risk classification methods are alike in that they refer to statistical predictions of risk, the use of risk factors, and the increased weighting given to an accumulation of factors. Many individual characteristics are predictive of recidivism and most classification models use some predictors and not others. But the choice of factors for inclusion on a classification instrument must fit the purpose of the risk classification model. Indeed, choice of factors will greatly affect the utility of the classification process for certain purposes as well as the system's potential for bias, particularly racial bias. Because, risk classification

methods are developed through empirical research, they seldom include items that are not statistically related to recidivism; some of the omissions, however, will appear surprising, because they are factors that are important in other types of sentencing and dispositional decision-making. The best example, "harm committed to others," is not predictive of future offending (Clear, 1988; Petersilia, Greenwood, & Lavin, 1977). This is not, however, to dismiss the importance of harm in retributive, just deserts sentencing determinations.

PURPOSES OF RISK CLASSIFICATION

The main purpose of risk classification is to help achieve the correctional purpose that the public most clearly charges us with---keeping communities safe. Risk classification enables correctional agencies to direct scarce resource to those offenders most likely to commit new crimes. Notwithstanding, the value of this most obvious purpose, additional benefits and applications of risk classification have unfolded along with technical advances to the classification methodology. Thus, risk classification serves a multitude of purposes:

- o To allocate resources in an informed and rational manner. Burgeoning institutional and community correctional populations, along with reductions in correctional spending, have complicated decisions about staffing, bed space, supervision strategies and time to release. In this climate, policy makers and practitioners alike profess the belief that our most intensive treatment and supervision options should be reserved for the most serious offenders. To do so, we must be able to identify the high risk offender.
- o To make decisions about level of supervision, intervention, or security level in an efficient manner. With some intake and classification units admitting 200 or more offenders per month, time consuming, subjective assessments are of little value. Most risk classification models have endeavored to put forward instruments which are efficient to administer.¹
- o To make decisions uniformly. Because high risk offenders experience greater deprivation of liberty than those classified as low risk, correctional practitioners

and policy makers recognize a moral and legal obligation to make such a classification in a fair and objective manner. Risk classification models improve our ability to achieve fairness and uniformity, by assuring that: 1) all offenders within a given agency are assessed according to the same criteria, and 2) the criteria for assigning greater or less deprivations of liberty are those which have empirically-established relationships with recidivism.

- o Reducing the risk of incidents occurring while under correctional supervision. Apart from the safety of the community, risk classification is also a factor in managing secure institutions. Most often, assignment to maximum, medium, or minimum security institutions is also determined by actuarial risk classification procedures. These classifications, however, are predicated upon an inmates' likelihood of incurring or inflicting dangerous or disruptive behaviors while incarcerated.

These benefits were perhaps enough to make risk classification one of the most important correctional innovations of the century, and clearly the most widely used form of correctional classification. Even so, when risk assessment was incorporated into a new generation of correctional treatment evaluations, a number of new purposes emerged. Most noteworthy; several the meta-analyses published during the late 1980's and early part of the 1990's, showed that offender risk was a factor in whether and to what extent the program reduced recidivism (see Andrews & Bonta, 1994; Andrews, Zinger, Hoge, Bonta, Gendreau, & Cullen, 1990).² Although risk classification was initially intended to achieve security goals, it ultimately pointed us to valuable programmatic ones as well:

- o To help target our most intensive treatment efforts to high risk offenders. The meta-analyses found that intensive treatment programs actually were most effective with high risk offenders. A very important corollary to this is that reductions in an offender's risk score while in treatment, typically translate into reduced recidivism upon release (Andrews & Bonta, 1994; Lipsey, 1991).
- o To provide a means for directing low risk offenders to less intensive interventions. Some of the meta-analyses have also suggested that low risk offenders don't benefit from, and sometimes are actually harmed by, intensive intervention. This goes against many common assumptions (e.g., "work with them early in their criminal careers"). Such findings also advise against tendencies to target

less serious offenders because they are easier to work with.

Recent correctional research also demonstrates the benefits of risk classification as an aid to program evaluation. For purposes of program evaluation, risk classification facilitates: 1) studying or identifying comparable control groups, 2) achieving an improved understanding of target populations, and 3) examining the effects of subject attrition on the final composition of experimental and comparison groups.

A BRIEF HISTORY OF RISK ASSESSMENT

Although social scientists have endeavored for well over a century to predict criminal behavior, system wide applications of risk classification models began only approximately 25 years. The earliest risk classification models in use in the United States were seen in California's state probation offices (BE61A), in the United States Parole Commission's Parole Salient Factor Score (SFS), and in separate U.S. District Probation Offices (Eaglin & Lombard, 1981). A similar instrument, the Statistical Index of Recidivism (SIR) was implemented in Canada (Nuffield, 1982). Known at the time as "Base Expectancy Scales", these instruments selected from a large array of back-ground variables, those factors which individually or in combination were most likely to predict recidivism. The selected factors then became the elements of a scale. Points assigned to each item reflected the item's predictive strength. The SFS, for example, was constructed through research that identified correlates of recidivism. The results produced an instrument containing such predictors as: 1) prior adult or juvenile convictions, 2) prior commitments of more than thirty days (adult or juvenile), 3) age at current offense, 4) existence of a recent commitment within three years of the current commitment, 5)

history of prior escapes, and 6) history of heroin/opiate dependence (Gottfredson, Wilkins, & Hoffman, 1978; Hoffman, 1994).

Parole and sentencing guidelines closely paralleled the development of SFS (Gottfredson, Cosgrove, Wilkins, Wallerstein, & Rauh, 1978; Gottfredson, Wilkins & Hoffman, 1978). The guidelines approach differed from the prediction and risk assessment methods, however; the latter predicted likelihood of recidivism or risk to the community while the former sought to serve as a guide to sentencing and release decisions. Thus, sentencing guidelines endeavor to assign a sentence on the bases of deserts as well as the offenders likelihood of reoffending. The primary difference occurs on one variable; guidelines factor in consideration for the harm committed during the offense in question where most risk classification systems do not (Gottfredson, 1987a). Harm or seriousness of the offense, as noted earlier, is not a predictor of future offenses, but it is nevertheless a factor in achieving the retributive goals of sentencing (Clear, 1994).

A number of factors prompted the spread of risk classification to other states and jurisdictions. Shortly after the development of the first community-based risk classification systems, two United States government reports, Probation and Parole Activities Need to Be Better Managed (U.S.D.J., 1976) and State and County Probation: Systems in Crisis (U.S.G. A., 1977) issued indictments against the effectiveness of probation and parole. At the same time, risk assessment fit an emerging correctional model that endeavored to supervise high risk offenders in the community rather than in institutions. Such programs included Intensive Probation Supervision (Banks, Porter, Rardin, Silver, and Unger, 1977) and Probation Subsidy programs.

By the early 1980s, risk classification emerged in a number of prison systems. With institutionalized offenders, however, "risk" did not mean risk of recidivism; it meant risk of disruptive behaviors or escapes while incarcerated. Just the same, as we examine institutional risk classification systems, we note some of the same types of risk factors as found in the community based systems. For example, systems developed by the Federal Bureau of Prisons (Kane & Saylor, 1983) and the National Institute of Corrections (NIC, 1982) list such factors as: 1) history of violence, 2) prior institutional escapes, and 3) number and type of prior commitments.

Neither the community-based nor the institutional risk classification systems conceptualized risk as a single decision made at one point in time which never had to be reconsidered. It was assumed that good behavior or attainments in treatment programs should result in reductions in risk scores. And such reductions should then result in reductions in levels of supervision while on probation or parole, or in a transfers to a minimum or medium security institution if serving a prison sentence. The need for a system to reassess risk was obvious.

The reassessment methods enabled correctional agencies to reassess offenders at regular intervals (often every 6 months), to determine whether a change in supervision or security levels was warranted. Reassessment scales contained a different array of variables, since many of the initial risk assessment factors contained background variables that were not changeable (Jones, 1996). On the Bureau of Prison's BP15, for example, reassessment of risk considered such factors as: 1) percentage of time served, 2) nature of disciplinary reports received, if any, and 3) use of family and communities ties. Put differently, the initial risk assessment scales used static predictors of risk (e.g., history of violence) which cannot change over time, while the

reassessment instruments used more dynamic predictors of risk (e.g., institutional behavior) which can change. The distinction between dynamic and static predictors is essential to reassessment in that dynamic characteristics can be changed by offenders, whereas continued use of the static predictors would only serve to replicate the initial score, thus offering no incentive or possibility for offenders to change.³

The earliest prediction models dealt with the single function of separating high risk from low risk offenders and offered few directions beyond the custody and supervision functions. One of the first breaks away from the strict security-based model was seen in the Wisconsin Risk Assessment system (Appendix A)(Baird, Heinz, & Bemus, 1979). The system was designed to assist with both security and rehabilitation goals; closer examination of the risk factors shows a few dynamic predictors such as employment, antisocial attitudes, and substance abuse. More important, however, a needs assessment classification tool supplemented the risk assessment instrument in order to assist correctional practitioners in a more comprehensive case management approach. The model accompanying the Wisconsin Risk Assessment system, required intake workers to classify offenders according to three levels of need, ranging from normal functioning to serious disruption of normal functioning, across seven potential needs areas: 1) health, 2) intellectual ability, 3) behavioral/emotional problems, 4) alcohol abuse, 5) drug abuse, 6) educational status, and 7) vocational status.

Supplementing the case management models even further, Client Management Classification (CMC), (Lerner, Arling, & Baird, 1986) put forward a third component of classification, a process whereby case managers could classify offenders according to personality and criminal style dimensions. The personality types were devised for purposes of matching offenders to

optimal types of treatment programs and case managers. The types, themselves, were similar to those developed by earlier proponents of personality-based classification systems (e.g., Megargee & Bohn, 1979; Quay & Parsons, 1972; Warren et al., 1966).⁴

At that time, the late 1980s and early parts of the 1990s, risk was seen as having one purpose while psychological and needs-based models had another (Posey, 1988; Sechrest, 1987; Van Voorhis, 1991). This mode of conceptualizing classification models, however, did not reflect the risk classification models emerging at that time in Canada. In a review of the classification technology, Andrews, Bonta, & Hoge (1990), put forward three principles of classification: risk, needs, and responsivity. Most instructive, was their notion of the "criminogenic need" which the authors discussed in the context of "the needs principle". Criminogenic need refers to those individual factors that appear to be involved in an individual's criminal behavior such as alcoholism, criminal values, antisocial associates, criminal attitudes and others. Many of the criminogenic needs are psychological. Apart from the earlier risk/needs models, the criminogenic need is not simply a need that we have decided to address independent of its effect on recidivism, it is a need which, if reduced, will reduce the individual's likelihood of future criminal behavior (Andrews et al., 1990). The criminogenic need, in other words, is a risk factor.

Where are we at present? The research, at least, is pointing us toward classification models that utilize more dynamic predictors, that are suggestive of meaningful interventions while at the same time identifying risk. Indeed the crime and recidivism research shows us that relatively few of the potentially valuable predictors of recidivism were used on our first generation of risk

assessment instruments (see Burgess, 1928; Gendreau, Little, & Goggin, 1995; Glueck & Glueck, 1950; Loeber & Dishion, 1983). Following a period of steadfast utilization of static predictors, reflecting such correctional priorities as incapacitation and prevention, the risk classification technology shows signs of moving in new directions, toward models which will help us design interventions as well as control offenders. Just as we observe coexistence of rehabilitative and control functions in some correctional settings (Palmer, 1992), we also note movement toward risk classification models that best fit the dual purpose of control and treatment.

On the forefront of risk assessment research is renewed interest in systems for assessing the risk of specific types of problem behaviors such as sex reoffending and violent reoffending. In addition, a number of studies are examining the technology for classifying specific populations such as women and juveniles. Finally, following two decades of use, researchers and practitioners are developing an understanding of ways in which risk classification is being misused, and concern for potentially tragic misapplication of risk classification is emerging from many quarters.

We now turn to a discussion of the two main types of risk assessment methods, risk classification for control, and risk classification for treatment.

RISK ASSESSMENT FOR PURPOSES OF CONTROL AND SECURITY

For almost 20 years, the Wisconsin Risk Assessment Scale (Baird, Heinz, & Bemus, 1979) has stood as the standard risk assessment scale and the one which is in most frequent use in probation and parole (see Appendix A).⁵ Other instruments have been constructed (e.g., New

York; Iowa, APA), validated, put into practice, and found to be as effective (Baird, 1980), but such research almost always identified the same or similar risk factors when official measures were used as the behaviors (dependent variables) the instrument was designed to predict (Baird, 1980). Realizing this, the National Institute of Corrections recommended adoption of existing instruments rather than engaging in expensive construction and validation research only to rediscover the same predictors each time.

While their recommendation makes good sense, sources are quick to warn that instruments must nevertheless be validated to new jurisdictions. Even though the risk factors, themselves, do not change, the weights for each factor does appear to change across settings; failure to revalidate or reweight items can result in a loss in the predictive accuracy of the instrument (Wright, Clear, Dickson, 1984).

The Wisconsin Risk Assessment Scale contains the following risk factors: 1) number of address changes in last 12 months, 2) percentage of time employed in last 12 months, 3) alcohol usage problems, 4) other drug usage problems, 5) attitude, 6) age at first conviction, 7) number of prior periods of probation/ parole supervision, 8) number of prior felony convictions, 9) convictions or juvenile adjudications for property crimes, and 10) number of convictions or juvenile adjudications for assaultive offenses.

A risk reassessment model accompanies the risk assessment scale (see Appendix B). Both systems have been revalidated successfully in recent years (Baird, Prestine, & Klockziem, 1989). Reassessment is recommended every 6 months according to the design of the Wisconsin system. As noted earlier, the reassessment instrument adds mostly dynamic variables to the scale: 1) problems in interpersonal relationships, 2) nature of companions (criminal or not), 3) adherence

to conditions of supervision, and 4) use of community resources. The reassessment, on the Wisconsin system, also re-evaluates: 1) percentage of time employed, and 2) substance abuse. Finally, it retains the static scores for: 1) number of address changes in last 12 months, 2) age at first conviction, 3) number of prior period of probation/parole supervision, and 4) number of prior felony convictions.

The institutional corrections equivalent to risk assessment was seen in the Federal Bureau of Prison's BP 15 (Kane & Saylor, 1983), and a similar instrument developed by the National Institute of Corrections (NIC, 1982) (see Appendix C). These systems also provide for regular reassessment of risk. The function of the institutional models, however, is to identify those inmates most likely to commit dangerous or dysfunctional behaviors while in prison settings.

For many, the value of these risk classification systems rests in their efficiency. The scoring procedures are simple, and the instruments have high face validity. In most instances, they are designed for optimal organizational fit; they fit not only the flow of cases from intake to termination, but they are also designed to be components of in-house management information systems. A cursory review of the items contained on the Wisconsin system reveals its simplicity. Many items can be completed with records routinely available to probation and parole officers. Moreover, items on the reassessment instrument frequently refer to questions which most officers routinely monitor over the course of probation/parole supervision. With this in mind, it is surprising that subsequent reviews of staff accuracy in completing the risk assessments are not good (Austin, 1986), and the extent to which staff override scores is believed to be rather high (Schneider, 1990). As discussed in the final section of this report, implementation and staff training continues to be a concern crucial to all types of classification

models (Van Voorhis, 1994).

As for identifying risk, undoubtedly a high priority for most community correctional agencies, Table 1, shows rather impressive results for the systems discussed in this section.

RISK CLASSIFICATION AND CORRECTIONAL INTERVENTION

If social control was our only correctional policy, risk scores matched to levels of supervision or institutional security might be the only use for risk classification. However, research on correctional effectiveness shows us that correctional interventions targeted to the risk factors, themselves, can substantially reduce the recidivism of especially high risk offenders. This research also shows us that supervision alone, the sanction alone, or punishment, in and of itself, does not reduce recidivism (Andrews et al., 1990; Gendreau & Ross, 1987; Lipsey, 1991; Palmer, 1992). And in community settings, intensive supervision, or other intermediate sanctions for high risk offenders, are not effective unless they also offer interventions designed to reduce dynamic risk factors (Cullen, Wright, and Applegate, 1996; Gendreau, Cullen, & Bonta, 1994).

Thus, while the early risk classification systems gave some credence to offender rehabilitation by identifying dynamic risk factors and needs, directives were more pertinent to supervision and control than to treatment. It took a newer wave of risk assessment technology to separate risk and needs factors into: a) static criminal history and system based risk factors, b) dynamic risk factors or criminogenic needs, and c) ancillary needs (sometimes called responsivity factors) (e.g., learning disabilities, health, mental retardation, anxiety), and to make a strong empirically-based case for prioritizing the criminogenic needs for intervention

Table 1: Initial Risk Classification Scores by Recidivism

Risk Level	Baird et al., 1979		Kratcoski, 1985		Wright et al, 1984		Hoffman, 1994	
	Percent	N	Percent	N	Percent	N	Percent	N
Low Risk	3	94	17	27	21	193	20	597 ^a
Medium Risk	10	267	42	26	30	122	45	207
High Risk	30	720 ^b	70	40	65	45	67	291

^a "Very good" and "good" risk categories are combined for purposes of comparison across studies.

^b "High" and "highest" risk categories are combined for purposes of comparison across studies.

(Altschuler & Armstrong, 1991; Andrews et al., 1990; Bonta, 1996). These scholars did not stop with calling policy makers' and practitioners' attention to the dynamic risk factors; key to their work has been a linking of those factors with crime theory and program procedures (see Altschuler & Armstrong, 1991; Andrews & Bonta, 1994; Fabiano, Robinson, & Porporino, 1991; Fagan, 1990; Palmer, 1992). In other words they devoted considerable attention to showing us specifically what to do about the risk factors.

Linking risk classification to meaningful correctional interventions, rather than to custody and security alone, requires adequate understanding of two ideas: 1) the risk principle, and 2) criminogenic needs.

The Risk Principle

We have noted that a large body of research instructs us that correctional interventions work most effectively with high risk offenders (Andrews et al., 1990; Gendreau & Ross, 1987; Lipsey, 1991; Palmer, 1992). Up to this point, risk management in corrections meant that high risk offenders should be supervised more intensely or held in more secure institutional settings (if an institutional setting was warranted). Clearly, the more recent research offers additional applications of risk assessment technology: our best chances for success occur when we intervene in the criminogenic dynamic of the high risk offender (but not with highest risk offenders).⁶ Similarly, intensive interventions may actually be detrimental to low risk offenders. That high risk offenders achieve greater reductions in recidivism, then, may not be solely attributable to the possibility that high risk offenders have more room for improvement. Rather: 1) our most successful interventions may be most appropriate to the needs of high risk offenders,

and 2) low risk offenders may indeed respond more favorably to minimal forms of intervention (Andrews et al., 1990; Andrews & Bonta, 1994).

This is an important finding for a number of reasons. First, the risk principle challenges assumptions that serious offenders are beyond hope, or that we must intervene early with low risk offenders in order to have an impact. Second, the risk principle is important from a resource perspective; our supervision and programmatic resources should be reserved for the high risk offender.

Criminogenic Needs

In order to fully utilize risk classification for purposes of correctional intervention, one must appreciate the importance of targeting dynamic risk factors or criminogenic needs. That is programmatic services must be targeted to risk factors that programs can help to change. The most important criminogenic needs are: 1) attitudes, orientations, and values favorable to crime, 2) antisocial personality characteristics, 3) antisocial peer associations, 4) problems associated with alcohol/drug use, 5) anger/ hostility, 6) perceived utility of lying, stealing and aggression, 7) limited self-control, self-management and problem solving skills, 8) poor use of leisure time, 9) poor conflict management skills, 10) poor attitudes toward work and/or school, 11) emotional problems associated with child abuse (physical, emotional, sexual), 12) poor communication and affection in families, 13) limited family problem solving skills, 14) poor parental monitoring and supervision, 15) deviant sexual arousal, attitudes and behavior, and 16) lack of empathy toward victims (Andrews et al., 1990; Gendreau, Little & Goggin, 1995; Gendreau & Andrews, 1994).

The notion of criminogenic needs leads us in three possible directions: 1) for all participants, the program targets one or more of the most common criminogenic needs, 2) the program

individualizes its interventions, so that each offender participates only in those programs that fit his or her most serious criminogenic needs, or 3) the program targets a criminogenic need common to a specific group of offenders (e.g, reducing the deviant arousal patterns of sex offenders).

Risk Assessments and the Identification of Criminogenic Needs

Some of the criminogenic needs identified above, are represented in commonly used risk assessment and reassessments. As noted earlier, the Wisconsin Risk Assessment model taps antisocial attitudes, substance abuse, alcohol abuse, and parenting problems (for juveniles); the needs assessment instrument identifies emotional and behavioral disturbance as well as employment problems and substance and alcohol abuse. Yet, many of the criminogenic needs, listed above, are not assessed by systems commonly used in the United States. Another alternative, the Level of Supervision Inventory (LSI) (Andrews & Bonta, 1995), contains mostly dynamic predictors of future criminal behavior. In particular, the LSI scores offenders on such characteristics as antisocial attitudes, antisocial associates, family factors, and others that are considered to be criminogenic needs (see Appendix D). As these criminogenic needs are summed in the LSI final score, we have a score that is predictive of risk in a variety of correctional settings. Moreover, the LSI risk score is highly correlated with more traditional risk classification alternatives (Bonta, 1996).

Full use of the LSI, usually entails: 1) identifying high risk offenders through the total LSI score, and 2) linking specific criminogenic needs (identified by the LSI) to a social learning, behavioral, or to a cognitive behavioral program (Andrews & Bonta, 1994).

An alternative to the LSI, would involve using a more common risk assessment instrument

such as the Wisconsin System or the LSI, for that matter, and then conducting a second tier of assessment that assesses for specific criminogenic needs. If we are dealing with special populations or if we are targeting only a few criminogenic needs for program intervention, the more specialized assessments might be preferred. For example: 1) The Anger Inventory (Novaco, 1975) for anger and aggression, 2) the Multiphasic Sex Inventory (Nichols & Molinder, 1984) for sex offenders, 3) the Alcohol Dependence Scale (ADS) (Skinner & Horn, 1995) for alcoholism, or 4) The Psychological Inventory of Criminal Thinking Styles (Walters, 1995) for criminal thinking errors. These are just a few examples. We would advise programs to consult with an evaluator or clinical psychologist, however, prior to selecting a psychological, behavioral, or educational inventory. Many diagnostic instruments have license requirements and test norms which must be considered prior to their being implemented in a new setting.

Ideally, programs should determine whether their interventions have reduced dynamic risk factors, thereby reducing the likelihood of reoffending. In order to do so, criminogenic needs should be reassessed prior to program termination. This involves readministering the assessments that we made at intake to determine whether or not change has occurred. Several of the risk assessment instruments and the more specialized inventories of specific risk factors provide reassessment instruments.

In sum, programs using risk assessment for purposes of planning program intervention are more likely to promote ultimate reductions in recidivism than those using risk assessment solely for security, custody, and punishment. In doing so, programs must: 1) target and assess specific criminogenic needs/risk factors, 2) identify improvement on the risk factor as an intermediate

objective for their program, 3) plan interventions known to be successful and match them to relevant risk factors, and 4) reassess risk to determine if the program impacted on criminogenic needs. The research confirms that when we reduce risk scores, we also reduce the likelihood of recidivism.

RISK CLASSIFICATION FOR SPECIFIC POPULATIONS AND BEHAVIORAL PROBLEMS

The earliest risk classification models were developed for our largest correction population, adult males. It was not long before practitioners sought similar technologies for other populations. For example, we observe ongoing interest in classifying sex offenders and violent offenders according to their risk of reoffending. The issues raised in risk classification of these populations, however, are more complex than those raised for the larger population of adult male offenders, whether incarcerated or in community-based settings. As a result, the technology for classifying juveniles, women, violent offenders, and sex offenders is in a far less settled state than the methodology for classifying adult males. For these groups, we can describe a current status of risk classification which is far more tenuous and subject to change in years ahead.

For all of the populations mentioned, the primary prediction problem concerns low base rates of the behavior to be predicted; the rate of violent reoffending is much lower than the rate of general reoffending among adult males. Actuarial prediction is likely to be inaccurate with events that have very high or very low rates of occurrence. And if the statistical prediction process is technically questionable, the resulting classification system will be ethically suspect. If a group's overall recidivism rate, for example, is only 15 percent, a prediction that no one

will reoffend will be accurate 85 percent of the time. An 85% accuracy rate is better than the accuracy of most actuarial predictions of events with low base rates. Such endeavors typically result in overprediction, or identifying far more high risk offenders (or false positives) than actual recidivists (Clear, 1988; Gottfredson, 1987b). As might be expected, several of the discussions below, discuss risk classification in the context of base rate problems.

Risk Classification of Juvenile Offenders. Prediction of juvenile reoffending (even first time offending of youth) has a rather long history (Glueck & Glueck, 1950), but systematic applications of risk classification to juveniles were developed at about the same time as the adult community-based risk classification systems (see Baird, 1973; Baird, Storrs, and Connolly, 1984). In current application, the most common community-based risk classification instruments looks somewhat similar to its counterpart for adults (see Figure 1).

Although the risk technology generated numerous juvenile intensive supervision programs (Armstrong, 1991), many criminologists were less than enamored by risk classification of juveniles. With earlier longitudinal research showing a reoffense rate of only 15 to 25% (Wolfgang, Figlio, & Sellin, 1972) a "base rate problem" seemed likely. This, coupled with the fact that the policy implications of risk classification favor intensive programming and supervision, has prompted strong reaction from some highly regarded criminologists, such as: 1) "I have conducted research into the prediction of recidivism and see no moral objection to this, but I have not, and would not, carry out research aimed at predicting the probability of delinquency" (Wilkins, 1985), 2) "to call a target group high risk when its true probability of harmful future conduct is less than 50% is to stretch the credibility of the term 'high risk'

Figure 1: Items Contained on Adult and Juvenile Community-Based Risk Assessment Models (Baird et al., 1980; Baird et al., 1984)

Initial Assessment		
Adult System		Juvenile System
age at first conviction		age at first conviction
N of address changes (past 12 mo.)		type of peer relationships
% time employed (past 12 mo.)		school disciplinary probs.
alcohol usage problems		alcohol abuse
other drug usage problems		drug/chemical abuse
N of Prior Probation/Parole		N of prior institutional commitments (>30 da.)
N of Prior Probation Parole revocations		parental control
N of prior felonies		prior criminal behavior
N of prior property convictions or adjudications		
N of prior assault convictions or adjudications		
attitude		
Reassessment of Risk Items		
Adult System		Juvenile System
age at first conviction		age at first conviction
N of address changes (past 12 mo.)		N of prior institutional commitments (>30 da.)
N of prior probation/parole revocations		prior criminal behavior
N of prior felonies		<u>Since Last Assessment:</u>
Nature of prior conviction		drug/alcohol abuse

Figure 1, continued.

Reassessment of Risk Items	
Adult System	Juvenile System
<u>Since Last Assessment:</u>	school disciplinary probs.
% time employed	parental control
alcohol problems	response to supervision
other drug problems	use of community resources/ treatment programs
relationship problems	
criminal/prosocial friends	
response to conditions of supervision	
use of community resources	

(Clear, 1991), or 3) "In contrast to adult offenders, devising valid scales for juveniles is certainly complicated by the fact that, in maturational terms, youth are more often volatile and impulsive, more often experience rapidly changing personal circumstances and needs and are less likely to develop long-standing patterns of behavior and habits on which to predict future misconduct" (Altschuler & Armstrong, 1991).

With low base rates, the inaccuracy of the prediction is in the direction of overprediction, that is of identifying as "high risk" individuals who actually will not reoffend. Researchers call such predictions "false positives". The other type of error, false negative, refers to the failure to identify an individual who will, in fact, reoffend. False positives and false negatives are highly relevant to each other (see Clear, 1988). Sometimes we tolerate higher false positives if the cost of the false negative is high; we balance the cost of the false positive (the intrusiveness and loss of liberty resulting from such a label) against the cost of the false negative, failure to prevent future crime. Yet, future crimes in the case of many juvenile offenders, are not likely to be violent. Although arguments about the changing character of youth crime may counter this suggestion, violent youth crime is still relatively rare from a prediction stand point (Snyder, 1992). Intensive programming for youth has raised a serious specter of "net widening" (Clear, 1991; Jones, 1996).

This concern should not, however, negate the fact that interventions targeted to high risk youth are highly successful (Andrews, Zinger, Hoge, Bonta, Gendreau & Cullen, 1990). The problem is identifying the target population for such programs.⁷

Risk Classification of Female Offenders Risk classification of female offenders is marred by problems which also occur in the field of health and mental health---few studies have been conducted and most of the existing risk assessment instruments have been constructed and validated on males. The few exceptions include the SFS (Hoffman, 1982) and the LSI (Coulson, Nutbrown, Giulekas, Cudjoe, & Ilacqua, in press). In addition, researchers are currently validating the Megargee MMPI-based Typology (Megargee & Bohn, 1979) for use with female prison inmates. This system will employ the MMPI2. It is not clear whether or not base rates are a problem when predicting the reoffending of females, but accuracy resulting from failure to validate instruments to specific populations could be. The result of course, could be a gender-biased risk assessment model.

Base rates, or the proportions of females who reoffend are not ideal but in some studies they have been large enough to enable the construction of risk scales. In a recent study of female parolees, Bonta, Pang, and Wallace-Capretta (1995) reported that female inmates in Canada evidenced recidivism rates of 35 percent in one sample and 46 percent in a second. For purposes of constructing institutional risk classification systems, however, infraction rates have been found in several studies to be similar to those reported for males (Lindquist, 1980; Tischler & Marquart, 1989).

A few studies appeared to indicate that risk factors for criminal behavior are the same for females as they are for males (Simourd & Andrews, 1994; Smith & Paternoster, 1987), but the recent Bonta et al. (1995) study must temper such optimism. Among two samples of released women in Canada, the SIR (Nuffield, 1982) failed to adequately predict subsequent recidivism. Risk factors noted in the researcher's second sample included: 1) prior offense and aspects of

the prior record, 2) age, 3) single parenting, 4) reliance upon public assistance, 5) history of self-injury, 6) violent behavior while incarcerated, and 7) number of prison infractions. The items that failed to correlate with recidivism are surprising, such as: 1) history of juvenile delinquency, 2) weapon involved in the conviction offense, 3) offense committed with co-offenders, and 4) alcohol and drug use. Surprisingly, women who had been abused were less likely to recidivate (36%) than those who had not been physically abused (78%).

The Canadian results may be affected by the small sample and cell sizes found in the initial sample, and by rather large amounts of case attrition in the second sample, however, it ought to serve as a call for more research and a strong precaution against the use of risk classification systems among women when they have not been validated. It may be that the risk factors common to male and female offenders are the dynamic risk factors such as: 1) criminal personality, 2) criminal attitudes and values, 3) family dysfunction, 4) school and employment difficulties. This may explain why the LSI has been successfully validated among female offenders (Coulson, Nutbrown, Giulekas, Cudjoe, & Ilacqua, in press).

Risk Classification of Violent Offenders. Although few would deny the value of a classification model that would lead to the prevention of our most violent crimes, the general view on predicting violence was just that: it would be nice, but it is not methodologically possible due to the problem with low base rates (Monahan, 1981). As with other low base rate occurrences, actuarial predictions of violence over predict. But over prediction was occurring with clinical predictions as well; psychological and psychiatric predictions of dangerousness could over predict by 3 cases for every one who actually turned out to be violent (Klassen & O'Connor,

1987) or by a ratio of 4 to 1 in the case of the Baxtrom patients released by virtue of a Supreme Court decision (Steadman & Coccozza, 1974).

With the advent of recent research, however, this earlier pessimism is relaxing somewhat. There may be ways to predict violent behavior, but the process requires some changes to the general risk assessment technology. Several directions have been attempted or recommended, including:

- o Improving the base rate of the construction and validation samples by extending the follow-up time period. Released offenders, in other words, would have had a longer time period in which to commit a new offense (Bonta & Hanson, 1995);
- o Improving the base rate by studying more specialized populations. Instead of general populations, or the general criminal populations, construction samples could consist of violent offenders. The resulting instrument would then predict the violent recidivism of violent offenders (Gottfredson, 1987b; Jones, 1996; Harris, Rice, & Quinsey, 1993);
- o Adding psychological and certain developmental risk factors to the more traditional criminal history and more easily obtained background variables (Harris, Rice, & Quinsey, 1993). Situational variables might also be useful (Monahan & Steadman, 1994);
- o Using different types of criterion variables, self-report in addition to official arrest data (Klassen & O'Connor, 1987);
- o Predicting different types of violence rather than considering violence as a unitary phenomenon (Baird, Wagner & Neuenfeldt, 1992; Monahan & Steadman, 1994).

There have been some successes in these areas. For example, Bonta & Hanson (1995) recently applied the Canadian SIR scores to violent recidivism of 3,000 Canadian inmates released between 1983-1984. While violent recidivism for such a group was only 10% at a 3 year follow-up (Bonta, Harman, Hann & Cormier, 1996), 49% of these inmates committed new acts of violence over an 11 year period. The SIR, which is somewhat similar to the U.S. Parole Commissions Salient Factor Score, showed a modest correlation with violent offenses ($r = .21$).

Among offenders who evidenced low risk scores upon their release from prison, 24% committed a violent crime within 11 years of their release. Recidivism for high risk offenders was 65%.

Moving to a more specialized population of violent offenders who were assessed for mental illness, Harris, Rice, and Quinsey (1993) constructed an actuarial instrument that correlated with violent recidivism ($r = .44$). On this instrument, 69 percent of the high risk subjects committed subsequent acts of violence while only 31% of the low risk subjects did so. The accuracy of the instrument (percentage of correct diagnoses) was 75%. It is important to note, that the improved predictability of this instrument was achieved through adding psychosocial history and psychological diagnoses to the routine case history variables that we typically collect in community corrections and prison settings. Most noteworthy, the Psychopathy Checklist (Hare, 1991), was the most useful predictive variable. This assessment identifies individuals who evidence traits associated with anti-social personality disorder, or psychopathy, including: 1) chronic lying, 2) impulsivity, 3) persistent antisocial behavior, 4) inability to plan for the future, 5) superficial relationships and impersonal sex lives, 6) unreliability, 7) inability to learn from experience, 8) extremely egocentric and self-centered, 9) lack of guilt and remorse, 10) emotionally shallow, 11) superficial charm and intelligence, 12) absence of other symptoms of anxiety or mental illness, and 13) manipulative (Cleckley, 1982). Individuals with high PCL scores are exceptions to the risk principle; the research finds them to be very high risk and less likely to benefit from correctional interventions (Andrews & Bonta, 1994).

Other variables used in the Harris et al., (1993) study but not typically found on risk assessment instruments include: 1) separation from parents under age 16, 2) victim injury in

index offenses, 3) not schizophrenic, 4) elementary school maladjustment, 5) female victim-index offense, and 6) DSM personality disorder. When these variables were excluded, a separate analysis found that the traditional predictors, such as age at first arrest, and offense history, did not predict as well; the correlation dropped from .44 to .36.

A final example of an improvement in our ability to predict violent behavior may be seen in the Michigan Family Risk Assessment of Abuse/Neglect instrument (Baird, Wagner, Neuenfeldt, 1992) to predict parent's abuse of their children.⁸ Prediction of specific forms of violence rests upon our knowledge that violent behavior is very complex, with different risk factors for different forms of violence (Fagan, 1990; Roth & Reiss, 1993; Van Voorhis, Cullen, & Applegate, 1995). In the case of the Michigan Family Risk Assessment of Abuse Instrument, for example, risk factors include: 1) nature of the current complaint, 2) number of prior complaints, 3) isolation of the parent, 4) number of children, 5) childhood abuse of the parent, 5) alcoholism of father, 6) impulse control, 7) domineering parenting style, 8) low self-esteem of mother, and 9) level of cooperation demonstrated by the non-perpetrator. Fifty seven percent of the parents classified as very high risk were found to have subsequent reports of abuse or neglect; only 4 percent of those classified as very low risk evidenced such future reports.

While additional validation studies would be beneficial, the emerging body of research must certainly temper any tendencies to assert that offenders cannot be classified for risk of violence. The Harris et al. (1993) study, in particular, has greatly reduced previously observed problems of overprediction. Moreover, in the domain of violent crime, societal concern for false negatives may result in greater tolerance for overprediction than we might expect to find for other types of offenders.

Some researchers have suggested a renewed look at the possibility of using self-report data in the construction and validation of risk assessment instruments, asserting that many false positives are not actually false positives. They are violent individuals who have not been reported or processed through official channels (Klassen & O'Connor, 1987; Monahan & Steadman, 1994). Such cases may comprise as many as one-third of the "false positives" (Klassen & O'Connor, 1987). While this suggestion has not received a good deal of attention in the research, Van Voorhis (1993) recently observed that the nature of predictive models changed according to whether self-report or official dependent variables were used. In her research, prison inmates reported more infractions than they were cited for. Inaccurate criterion variables can go a long way toward washing out the predictive strength of a risk classification system, whether predicting future violence, prison infractions, or general criminal recidivism.

Risk Classification of Sex Offenders. Research is also showing some hope for improving our ability to predict the recidivism of convicted sex offenders, although we are aware of no established actuarial instruments for doing so. As with violent offenders, it is essential to utilize more than the social, criminal and demographic background variables. Bonta and Hanson (1995) reported that there was no relationship between the SIR and new sex offenses committed over the 11 year follow-up period ($r = .03$). Other researchers have constructed prediction models from psychological variables and factors specifically related to the nature of the sexual offenses. The variables found to be most predictive of future sexual offenses are: 1) unrelated victim, 2) multiple paraphilias, 3) prior criminal offenses, 4) prior sexual offense convictions, 5) offenses with male victims, 6) use of force in the sexual offense (rapists have higher recidivism rates),

6) unmarried, and 7) deviant sexual arousal patterns (McGrath, 1991).

Additional research among psychiatric patients again finds the Hare PCL-R to be very valuable in discriminating between recidivists and non-recidivists (Quinsey, Rice, & Harris, 1995). The nature of these risk factors underscores the complexity of violent behavior, supporting those who maintain that once we are able to collect a more detailed psychosocial history of offenders, we are able to identify risk factors that are unique to specific forms of violence.

STAFF AND PROGRAM ERRORS AND THEIR COSTS

Risk assessment models such as the Wisconsin Risk Assessment, APA, or NIC methods are familiar to most institutional case managers and probation and parole offices; classifications such as the LSI are increasing in popularity. Most risk models can be administered quite efficiently; a check of an offender's intake file will typically produce the information needed to complete the various items. Understandably, efficiency is a key consideration in selecting a classification method. In a recent discussion of correctional classification, for example, the Ohio Department of Rehabilitation and Correction put forward the following requirements for risk classification: 1) the information needed to complete the instrument is consistently and readily available, 2) the variables can be consistently coded by different users, 3) the variables show a consistent relationship with the outcome measure (or behavior that we seek to predict), 4) the variables have some level of face validity (they seem appropriate and relevant to the user), 5) the instrument is statistically accurate, and 6) the system is efficient to administer (Van Dine, 1993). Such considerations are understandable; without meeting them, the classification process could

collapse through improper implementation, staff inability to administer the system on a daily basis, or through its inaccurate predictions.

Our discussions in this last section are perhaps the most important ones covered in the entire monograph. Are our risk classifications accurate, or do we have too many errors, false positives or false negatives? Are systems being selected, implemented, and administered correctly? The question of error, of course, is a serious one, since errors threaten community and institutional safety, or place unjust restrictions on offenders.

Notwithstanding the simplicity of the current generation of risk classification systems, the potential for misapplication and error is alarming. If we compare risk classifications to assessments in other fields such as education, medicine, and mental health, we find far less regulation in criminal justice. Assessments in other fields are usually accompanied by manuals listing test norms and other psychometric data. In many instances, professional licenses assure that educational, medical, and mental health assessments are not put in the hands of untrained staff. In contrast, most risk classification systems developed and remain in the public domain (Van Voorhis, 1994). There are no identifiable checks against improper use. Yet, the need to educate users on the correct use of the risk classification systems is as great as for its counterparts in medicine, education, and mental health. And the costs of the errors are every bit as tragic as errors occurring in other attempts to predict human outcomes.

In this last section we identify some of the more common problems and offer suggestions for resolving them.

A. The Risk Classification System is Not Validated to the Specific Population A preexisting risk classification system can not be adopted without some degree of initial testing or validation to new populations or jurisdictions. Risk assessment systems do not travel well, in other words, and correctional practitioners should not expect to borrow a risk assessment and begin its use without first testing it (validating it) in the new setting. A risk classification system that works well in New York City may not be as predictive in a small city, or vice versa. Similarly, an assessment developed for adult males is not automatically predictive of recidivism for juvenile females.

A specific example of the importance of validation is evidenced in a recent validation of the Wisconsin Risk Assessment system in a western state. The study observed that risk assessment scores did not classify Native Americans according to relative categories of risk, but they did for white and African American offenders (Clear, Waring, & Taylor, 1995).

Failure to validate an instrument for specific populations may substantially reduce the predictive accuracy of the risk assessment scores because the weights (scores) of each risk category are known to vary from setting to setting (Wright, Clear, & Dickson, 1984). For example, being unemployed for more than 60% of one's time over the last calendar year receives a score of 2 on the original Wisconsin Scale. If this factor is found to be more predictive of recidivism in another area, the score should be higher than 2.

Validation to specific areas is also needed to establish norms for that area, determining what is a high, low, or average score for a given district. Obviously what is a high score for a small city in Ohio may not be so for New York City. In a similar vein, if cut of scores between risk levels are not properly set, they will complicate rather than facilitate the task of resource

allocation. If we are using risk assessment to identify those probationers who will be assigned to 10 Intensive Supervision probation officers, for example, we need to know how many probationers are going to score at or above our cut-off score for high risk. Otherwise we risk assigning the ISP officers an inappropriate number of cases.

We correct for these problems by testing the risk classification each time we position it in a new setting. In doing so, we: 1) conduct a study of whether the system predicts recidivism in a new location or with a new demographic population, 2) identify proper scores for each risk factor, and 3) determine appropriate cut-off scores, differentiating high, medium, and low risk groups.

On a related note, agencies wishing to assess for specific risk factors (e.g., aggression, substance abuse, thinking errors and others) must first assure that the diagnostic test, usually a psychological assessment, has been normed for similar types of individuals.

B. A Risk Classification Model is Not Accurately Completed by Staff

Although most of the risk assessment models reviewed above were designed to be efficient, using information that is readily available in case files, (e.g., rap sheets or other offender background reports), research into the accuracy of their use shows rather startling amounts of staff error (Austin, 1986). The causes of these errors are numerous, but a few examples will suffice:

- o Documents used in the course of completing the risk assessment are more difficult to read than we assume. Rap sheets offer perhaps the best example (Gottfredson & Gottfredson, 1980).
- o The instrument is so quick and efficient that it doesn't require enough thought. It is deceptively easy and therefore items may tend to be answered in a cursory

manner (Van Voorhis, 1994).

- o The classification model does not offer a good fit to the organization or to the case processing track used in the agency (Clear, 1995; Van Voorhis, 1994). For example, behavioral checklists may work very well in special prison classification units. Observing inmates in a 200- person cell block, however, creates a situation where inaccuracy may result simply from staff not having adequate knowledge of the person who is being observed.
- o Unfinished risk assessments are erroneously assumed to be complete when they are not. Scores then are summed with the unfinished scores receiving a value of 0. This is particularly troublesome in overcrowded agencies, or computerized systems which will automatically give a blank item a score of 0, thereby reducing the fortunate offender's risk score.
- o Most risk classification models allow for staff overrides, when case managers view the score as not reflective of a specific case. Override options are offered for extenuating and exceptional circumstances and in many cases they can improve the risk classification process (Clear, 1988). However, some research suggests that overrides might be used too frequently (Schneider, 1990).⁹
- o How many points is given to a subjective item such as "attitude"? This in itself is not a problem. In fact, the crime causation research finds criminal attitudes to be a strong correlate of crime (Andrews & Bonta, 1994). Moreover, experts recommend that risk classification should allow for some degree of staff input (Clear, 1988), and staff data can often be reliable and valid (Van Voorhis, 1994). However, subjective assessments easily could vary from officer to officer, and agencies should check for this possibility.
- o Staff are not adequately trained and retrained to use the system. Training is crucial, even for the easiest systems. Careful attention to treatment-based models such as the LSI is even more important, so that staff really understand what is meant by such clinical items as "interference posed by emotional problems." All too often, "it (the classification system) doesn't work" really means "we don't have time or resources to train and retrain staff".

Taken together, problems such as these result in unreliable and ultimately invalid risk scores.

When a risk assessment system is unreliable, we would theoretically see many instances where two staff members submit different scores for the same individual. When scores are unreliable, they are also invalid.

In many cases, reliability problems can be corrected through staff training in the meaning of each item, the criteria for scoring each item, and the procedures and information to be used in the assessment process. Agencies are also encouraged to make occasional reliability checks of their scores. Thus, a small sample of offenders could be jointly rated by staff in order to determine the percentage of times they assess the same score or at least classify the offender into the same risk category (Gottfredson & Gottfredson, 1980). In an area such as criminal justice, where the costs of misdiagnoses are high for both the offender and the community, interrater agreement (into the risk category) should be very high, perhaps as high as 95%. Lower reliability rates should prompt an investigation into the reasons for poor reliability. Less frequently, poor reliability could also mean that the instrument itself is unreliable, but given the nature of most of the items on the current generation of risk assessment instruments, and the fact that the systems should have been tested for reliability and validity prior to implementation, instrumentation is a less likely explanation.

C. What is the risk classification system predicting? Practitioners do not know what the classification system is predicting, but they make policy decisions as if they did.

What does risk mean? Risk of what? At the time a risk classification model is constructed, researchers will choose a criterion or dependent variable corresponding to the behavior the agency wishes to predict. In our search for the most important independent variables, or predictors, we often forget that the criterion variables are also important for many reasons.

First, criterion variables will affect the base rate of reoffending or some other type of "trouble" that occurs within each group. Rules infractions occur more frequently than felony

arrests, and general felony arrests occur more frequently than arrests for violent offenses. Unfortunately, risk classification systems are sometimes constructed using a higher base rate phenomenon such as rules infractions or a general "trouble" variable which includes all problems, but mostly rules infractions because they occur more frequently. In such instances, high risk offenders are those most likely to commit rules infractions. Walking through the process a little further, we then supervise that offender more intensely, thereby increasing the likelihood of his or her being cited for a rules infraction. A number of citations could result in revocation, transfer, or some other assignment to a more intensive correctional option. With that decision, and others similar to it, we increase correctional costs and populations in order to deal with rule infractions!

Alternatively, use of a variable which evidences low base rates, occurs at the cost of a high number of false positives (Clear, 1988; Jones, 1996; Monahan, 1981); we may for example classify four offenders high risk for every one who actually is high risk.

Second, criterion variables can have a bearing on what types of predictors are observed to be important (Van Voorhis, 1994). Most noticeably different factors correlate with official and self report measures of prison infractions (Van Voorhis, 1993). And self-report variables can often show us that some of our "false positives" are really "true positives", thus partially resolving the low base rate for serious crimes (Monahan & Steadman, 1994). Self-report follow-up data of new offenses, of course, is more difficult to obtain than official data, but this is of much less concern for institutional risk classification systems (Van Voorhis, 1994).

One of the best solutions to problems such as these is to simply know what the classification system is predicting. In fact, many recent validation studies report base rates for each risk

category across each type of criterion. This enables us to have a sense for the risk of each incident within each risk category. We might learn, for example, that high risk offenders in the validation sample committed the following types of trouble at these rates: 1) rules violations (84%), 2) felony arrest (52%), and 3) misdemeanor arrest (52%). Similarly, for low risk offenders: 1) rules violations (36%), 2) felony arrest (11%), and 3) misdemeanor arrest (11%)(Clear, 1988).

Simply put, it is important for correctional administrators to inform decisions on more than the risk score itself. If we know, for example, that our risk instrument is predicting mostly rules infractions, we need not allocate the same level of correctional resources that we might for offenders who are at high risk of committing a new felony. Similarly, if we have a system purporting to identify offenders who are at risk of committing a new violent offense, we must, in most cases, understand that we are doing so at a cost to offenders, since we will have many false positives in the high risk group. Given our concern for the safety of the community, we may choose to overclassify potentially violent offenders, anyway, but we may not wish to do so unknowingly.

D. What are the failure rates within each risk group and what is the actual frequency for each group?

Base rates (or failure rates) can vary from jurisdiction to jurisdiction and in different types of populations as well as from the choice of criterion variable, noted above. If we examine the same risk assessment instrument in several different locations, for example, we might note that high risk in one setting finds 20 percent of the offenders committing a new offense, whereas

high risk in another setting finds 60 percent of the offenders committing a new offense. Is it necessary to monitor high risk offenders in the first group on a daily basis, when 4 of every 5 will not get into trouble? This is not unlike the problem occurring with juvenile risk assessment instruments, where the base rate for new offending is generally so low in some jurisdictions, that a large investment of supervision resources may not be all that warranted or, for that matter, ethical (Clear, 1988; 1991).

What if the high risk group has very few offender in it? Should we lower the cut-off point, so that we have enough high risk offenders to justify a program for high risk supervision? This is possible only to a limited degree, because we will soon reach a point where some of the high risk offenders are not really high risk; the instrument then would loose its predictive merits. Offenders classified at the top of a distribution are not high risk if the distribution does not go as high as it does in another jurisdiction.

In response, our validation study, the test of the system in our jurisdiction, should show us the distribution of offenders across risk scores. We examine this distribution in order to plan for resources. If we have a large proportion of offenders in "high risk categories" and high risk represents a recidivism rate of 60 percent or more, we need a large scale intensive program effort more than if we have a smaller proportion of offenders in the high risk group.

Such a distribution will also show the absolute number of offenders that we can expect in each risk category. We may want to know, for example, how many high risk probationers we might expect before we employ 20 ISP probation officers for 120 offenders. Again lowering the cut off point might not help us, if in doing so we ultimately intensively supervise too many probationers whose risk score is too low. With adult offenders, however, the more likely

occurrence in a large urban probation office is to learn, that we have too many high risk offenders for the program to supervise on an intensive basis. Obviously, the distribution of scores should be examined early, ideally in advance of any new programmatic initiatives that are going to rely upon the instrument. Raising the cut off point for high risk (so we can reduce the actual number) puts some high risk offenders in medium supervision, and again compromises the predictive accuracy of the risk classification instrument.

Planning then, requires: 1) that the distribution as a whole be examined, 2) that cut off points between high, medium, and low risk be made with resources in mind, and 3) cut-off points should not be so extreme as to artificially inflate or deflate a group with offenders who are not aptly classified.

E. The risk classification system contains some variables that are racially or ethnically biased.

Ideally, our risk classification systems should contain risk variables that are predictive of risk across ethnic groups. Especially in light of the fact that systems are typically constructed through official criterion measures (e.g., arrest, rearrest, prison disciplinary citation), it is well known that such measures reflect the nature of offenders as well as the nature of the police, correctional officers, and probation and parole officers who supervise them. Official measures, then can reflect biased uses of official discretion.

One might assume that risk classification actually reduces discrimination, because it reduces discretion. Decisions are made by applying the same criteria to all offenders. But this argument is meaningless if one of the risk or decision-making criteria is race. Fortunately, we know of no risk classification systems that employ race as a risk factor in the classification model. What

is problematic, however, are risk classification models that employ variables that are highly correlated with race, such as education, employment, and income. Such factors then act as substitutes or proxies for the race variables (Jones, 1996; Petersilia & Turner, 1987). Fortunately, a recent study by Petersilia and Turner (1987) demonstrates that these proxy variables can be omitted without compromising the predictive accuracy of the classification systems (Petersilia & Turner, 1987).

More problematic, however, are criminal record variables that are correlated with race, such as prior juvenile record, since their exclusion would reduce the predictive accuracy of the system. Some would argue that criminal history factors reflect police and criminal justice system processing and overenforcement against African Americans. But these findings also raise an ongoing debate which cannot be resolved in this monograph: Are racial differences in arrests, sentencing, incarceration, and other criminal justice decision making reflective of racial biases within the system or do they reflect more serious criminal careers of blacks offenders? The debate is as complicated as it is politically and ethically charged. But Petersilia and Turner (1987) warn that removal of criminal record variables, on the ground that they are proxies for race, can only occur at the expense of placing serious offenders in minimum supervision, and jeopardizing community or institutional security.

If we return to the issue of failure rates for specific groups of offenders, we see additional concerns. For example, an earlier cited study by Clear et al. (1995) notes that recidivism rates for African Americans classified as low risk were similar to those for European Americans classified as medium risk. At the same time, recidivism rates for African Americans classified as medium risk were higher than for European Americans scored as high risk. There are two

possible explanations: (a) African Americans appear to have been underclassified while European Americans were overclassified; (b) alternatively, we might observe that the data reflect the overprocessing, inflated, arrests of African Americans in comparison to other ethnic groups.

Some answer concerns for ethnic and gender biases, by observing that the actual risk factors for crime are be similar for different groups, including males, females, juveniles, adults, black, and whites (Andrews & Bonta, 1994), a fact that may allay our concern for inherent biases; but when the matter of failure rates enters the debate, we are sometimes startled to find that high risk for each of the groups may mean something dramatically different.

These problems are for policy makers and practitioners to resolve. We would, however, make the following recommendations:

- o Avoid use of status, non-criminal record variables that are racially biased (e.g., education, unemployment, and income).
- o Consider reliance on dynamic variables rather than static ones. Prior juvenile record and age at first arrest cannot be changed, for example. Therefore, not only are static predictors highly correlated with status, there is nothing the offender can do to earn his or her way out of a high risk classification. One can, however, change criminal associates, substance abuse, and offender thinking patterns, and use of such dynamic variables does not compromise the accuracy of the risk prediction.
- o Know the failure rate for each group and plan accordingly. Female offenders many indeed show the same risk factors as males, but what if the failure rate for the high risk group is considerably lower than the rate for high risk males?

F. The risk classification is not linked to any programmatic or service delivery feature.

Does the risk classification influence day-to-day correctional practice? Does it translate into different supervision levels? Does it point correctional practitioners to dynamic criminogenic needs/risk factors and to services that will reduce criminogenic problems? All to often risk

classification models plugged into agency intake procedures without ultimately affecting supervision and treatment practice.

The meta-analyses have shown us that the latter is of primary importance in reducing recidivism. Supervision, alone, may translate into community or institutional safety while an offender is under correctional supervision, but only treatment of criminogenic needs really translates into reductions in recidivism (Andrews et al., 1990; Gendreau, Cullen, & Bonta 1994; Lipsey, 1991; Palmer, 1992). Agencies would be well advised to target criminogenic needs in the risk classification process and to translate those risk factors into treatment objectives and ultimately into relevant offender interventions. Moreover, a rational progression from program targets to intermediate objectives, to program services for achieving those objectives is the essence of effective planning (Van Voorhis et al., 1995). In this case, a dynamic criminogenic risk factor becomes an intermediate objective; the intermediate objective is linked to an intervention strategy known to be effective in reducing the criminogenic need.

G. Risk classification is expected to compensate for overburdening correctional resources.

One of the purposes for risk classification systems is to assist in the allocation of correctional resources. High risk offenders, that is, are at high priority for high security settings, staff supervision hours, intensive interventions, and other correctional resources. This would seem to be especially true during the crises of overcrowding that currently plague our correctional agencies. But as many correctional professionals will attest, correctional resources can become so overburdened that the classification process, itself, breaks down. A risk classification is of little note if there are no resources for the high risk clientele coming into the system. This was

witnessed recently in Ohio, where the task force studying the Lucasville riot, reported that severely overcrowded conditions had resulted in a collapse of the classification system. While not the only cause, or even the main cause of the Lucasville riot, it had nevertheless become extremely difficult to transfer inmates to other facilities prior to the riot. Classifications mattered little; there were no beds.

CONCLUSION

In conclusion, risk classification appears to have revolutionized correctional practice in the United States and in other countries as well. Beginning as a tool for controlling our most serious offenders, the current generation of risk classification systems have evolved to offer more directions for case management and correctional intervention without compromising the security function of the first generation of risk classification systems. Although there are not infinite possibilities in this regard, risk classification systems are invaluable for allocating correctional staff, bed space, supervision hours, and other correctional resources. We also note new possibilities for classifying violent offenders and sex offenders.

At the same time, applied use of the risk classification technology points to a number of problems which compromise the accuracy and validity of the resulting classifications. Accurate use of the risk classification technology can only be assured by: 1) selection of a model that appropriately fits both the organization and the offender population classified, 2) adequate staff training, 3) validation of each system prior to implementation, 4) ongoing monitoring of the integrity (reliability) of the system, 5) attention to potential biases, 6) knowledge of what the system is actually predicting in addition to the programmatic implications of its score

distributions and base rates, and 7) an integrated service delivery systems that translates risk classifications into relevant programming.

NOTES

1. The goal of making risk assessment instruments simple can be overstated. Some feel that the classification process should involve more, rather than less thought, and that the simplicity of some risk assessment systems may be contributing to rather high rates of error and overrides (Van Voorhis, 1994).
2. The meta-analyses were empirical summaries of hundreds of correctional program evaluations in order to differentiate effective programs from ineffective ones.
3. In response, Hoffman (1994) reminds readers that some sanctions are static or fixed, and could not be changed by dynamic factors, anyway.
4. These systems were not, strictly-speaking, risk classification models. Most were devised for purposes of facilitating case management and treatment. However, the Quay Behavioral Categories (Quay & Parsons, 1979; Quay, 1983) the Quay Adult Internal Management System and the Megargee MMPI-Based Typology for Adult Offenders (Megargee & Bohn, 1979) continue to be used for predicting institutional infractions. For that matter all of the cited psychological models are predictive of institutional misconduct (see Van Voorhis, 1994).
5. Under certain conditions, this instrument could also guide treatment efforts, but in its broadest practice, it does not.
6. Offenders diagnosed with extreme psychopathic traits appear to be an exception to this principle (Andrews & Bonta, 1994).
7. A version of the Level of Supervision Inventory for juveniles is available. Psychometric data for this system, however, was not available at the time of this writing.
8. A separate scale seeks to classify parents according to their risk of neglect.
9. Excessive use of overrides may also indicate that the classification system is not making accurate predictions.

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Appendix A

Wisconsin Risk Assessment Instrument

WISCONSIN ASSESSMENT OF OFFENDER RISK

Select the appropriate answer and enter the associated weight in the score column. Total all scores to arrive at the risk assessment

		SCORE
Number of Address Changes in Last 12 Months: (Prior to incarceration for parolees)	0 None 2 One 3 Two or more	_____
Percentage of Time Employed in Last 12 Months: (Prior to incarceration for parolees)	0 60% or more 1 40% - 59% 2 Under 40% 0 Not applicable	_____
Alcohol Usage Problems: (Prior to incarceration for parolees)	0 No interference with functioning 2 Occasional abuse; some disruption of functioning 4 Frequent abuse; serious disruption; needs treatment	_____
Other Drug Usage Problems: (Prior to incarceration for parolees)	0 No interference with functioning 1 Occasional abuse; some disruption of functioning 2 Frequent abuse; serious disruption; needs treatment	_____
Attitude:	0 Motivated to change; receptive to assistance 3 Dependent or unwilling to accept responsibility 5 Rationalizes behavior; negative; not motivated to change	_____
Age at First Conviction: (or Juvenile Adjudication)	0 24 or older 2 20 - 23 4 19 or younger	_____
Number of Prior Periods of Probation/Parole Supervision: (Adult or Juvenile)	0 None 4 One or more	_____
Number of Prior Probation/Parole Revocations: (Adult or Juvenile)	0 None 4 One or more	_____
Number of Prior Felony Convictions: (or Juvenile Adjudications)	0 None 2 One 4 Two or more	_____
Convictions or Juvenile Adjudications for: (Select applicable and add for score. Do not exceed a total of 5. Include current offense.)	2 Burglary, theft, auto theft, or robbery 3 Worthless checks or forgery	_____
Conviction or Juvenile Adjudication for Assaultive Offense within Last Five Years: (An offense which involves the use of a weapon, physical force or the threat of force)	15 Yes 0 No	_____

TOTAL _____

Appendix B

Wisconsin Risk Reassessment Instrument

WISCONSIN RISK REASSESSMENT

SELECT THE APPROPRIATE ANSWER AND ENTER THE ASSOCIATED WEIGHT IN THE SCORE COLUMN. TOTAL ALL SCORES TO ARRIVE AT THE RISK ASSESSMENT SCORE.

		SCORE
NUMBER OF ADDRESS CHANGES IN LAST 12 MONTHS:	0 NONE 2 ONE 3 TWO OR MORE	_____
AGE AT FIRST CONVICTION: (JUVENILE ADJUDICATION)	0 24 OR OLDER 1 20 - 23 2 19 OR YOUNGER	_____
NUMBER OF PROBATION/PAROLE REVOCATIONS: (ADULT OR JUVENILE)	0 NONE 2 ONE OR MORE	_____
NUMBER OF PRIOR FELONY CONVICTIONS: (JUVENILE ADJUDICATIONS)	0 NONE 1 ONE 3 TWO OR MORE	_____
CONVICTIONS OR JUVENILE ADJUDICATIONS FOR: (SELECT ALL APPLICABLE AND ADD FOR SCORE)	1 BURGLARY 1 THEFT 1 AUTO THEFT 1 ROBBERY 2 WORTHLESS CHECKS 2 FORGERY	_____
RATE THE FOLLOWING BASED ON PERIOD SINCE LAST CLASSIFICATION:		
PERCENTAGE OF TIME EMPLOYED:	0 60% OR MORE 1 40% - 59% 2 UNDER 40% 0 NOT APPLICABLE	_____
ALCOHOL USAGE/PROBLEMS:	0 NO APPARENT PROBLEMS 2 MODERATE PROBLEMS 5 SERIOUS PROBLEMS	_____
OTHER DRUG USAGE/PROBLEMS:	0 NO APPARENT PROBLEMS 1 MODERATE PROBLEMS 3 SERIOUS PROBLEMS	_____
PROBLEMS IN INTER-PERSONAL RELATIONSHIPS: (CURRENT LIVING SITUATION)	0 NONE 1 FEW 3 MODERATE 5 SEVERE	_____
SOCIAL IDENTIFICATION:	0 MAINLY WITH POSITIVE INDIVIDUALS 3 MAINLY WITH DELINQUENT INDIVIDUALS	_____
RESPONSE TO COURT OR BUREAU IMPOSED CONDITIONS:	0 NO PROBLEMS OF CONSEQUENCE 3 MODERATE COMPLIANCE PROBLEMS 5 HAS BEEN UNWILLING TO COMPLY	_____
USE OF COMMUNITY RESOURCES:	0 NOT NEEDED 0 PRODUCTIVELY UTILIZED 2 NEEDED BUT NOT AVAILABLE 3 UTILIZED BUT NOT BENEFICIAL 4 AVAILABLE BUT REJECTED	_____
TOTAL SCORE		_____

Appendix C

Federal Bureau of Prisons BP15

CUSTODY CLASSIFICATION									
1. INSTITUTION		INSTITUTION CODE		2. UNIT		3. DATE			
						MONTH-DAY-YEAR			
4. NAME		LAST		FIRST		INITIAL		5. REG. NO.	
6. SENTENCE LIMITATIONS 0 = NONE 1 = MISDEMEANOR 2 = JUVENILE 3 = YCA 4 = STUDY 5 = SPLIT SENTENCE 6 = RICO OR CCE 7 = NARA									
7. ADDITIONAL CONSIDERATIONS 0 = NONE 1 = MEDICAL 2 = PSYCHIATRIC BEHAVIOR 3 = AGG. SEXUAL OFFICIAL 4 = THREAT TO GOVT. 5 = GREATEST SEVERITY 6 = HIGH SEVERITY DRUG 7 = DEPORTABLE ALIEN 8 = RICO OR CCE									
SECTION A					SECURITY SCORING				
1. TYPE OF DETAINER		0 = NONE		1 = LOWEST/Low MODERATE		2 = MODERATE		3 = HIGH	
2. SEVERITY OF CURRENT OFFENSE		0 = LOWEST		1 = LOWEST/Low MODERATE		2 = MODERATE		3 = HIGH	
3. PROJECTED LENGTH OF INCARCERATION		0 = 0-12 MONTHS		1 = 13-24 MONTHS		2 = 25-36 MONTHS		3 = 37-48 MONTHS	
4. TYPE OF PRIOR COMMENTS		0 = NONE		1 = MINOR		2 = MODERATE		3 = SERIOUS	
5. HISTORY OF ESCAPES OR ATTEMPTS									
		None		> 5 YEARS		10-15 YEARS		5-10 YEARS	
		MINOR 0		1		2		3	
		SERIOUS 0		4		5		6	
6. HISTORY OF VIOLENCE									
		None		> 15 YEARS		10-15 YEARS		5-10 YEARS	
		MINOR 0		1		2		3	
		SERIOUS 0		4		5		6	
7. SUBTOTAL		TOTAL OF ITEMS 1 THROUGH 6							
8. PRE-COMMITMENT STATUS 0 = NOT APPLICABLE 1 = OWN RECOGNIZANCE 2 = VOLUNTARY SURRENDER									
9. SECURITY TOTAL SUBTRACT ITEM 8 FROM ITEM 7; IF ITEM 8 IS GREATER THAN 7, ENTER 0									
10. SECURITY LEVEL		1 = 0-6 POINTS		2 = 7-9 POINTS		3 = 10-13 POINTS		4 = 14-22 POINTS	
						5 = 23-29 POINTS		6 = 30-36 POINTS	
SECTION B					CUSTODY SCORING				
1. PERCENTAGE OF TIME SERVED		3 = 0 THRU 25%		4 = 26 THRU 75%		5 = 76 THRU 90%		6 = 91 PLUS %	
2. INVOLVEMENT WITH DRUGS & ALCOHOL		2 = WITHIN PAST 5 YEARS		3 = MORE THAN 5 YEARS AGO		4 = NEVER			
3. MENTAL/PSYCHOLOGICAL STABILITY		2 = UNFAVORABLE		3 = NO REFERRAL OR FAVORABLE					
4. TYPE OF MOST SERIOUS DISCIPLINARY REPORT		1 = GREATEST		2 = HIGH		3 = MODERATE		4 = LOW MODERATE	
5. FREQUENCY OF DISCIPLINARY REPORTS		0 = 10 PLUS		1 = 6 THRU 9		2 = 2 THRU 5		3 = 0 THRU 1	
6. RESPONSIBILITY INMATE HAS DEMONSTRATED		0 = POOR		1 = AVERAGE		2 = GOOD			
7. FAMILY/COMMUNITY TIES		3 = NONE OR MINIMAL		4 = AVERAGE OR GOOD					
8. IF ELIGIBLE FOR SECURITY LEVEL 1, IS THERE ANY MEDICAL REASON THAT WOULD PRECLUDE A CAMP?						Y = YES		N = NO	
9. CUSTODY TOTAL									
10. PRESENT SECURITY LEVEL									
CONSIDER FOR CUSTODY INCREASE IF POINT RANGE		CONTINUE PRESENT CUSTODY IF POINT RANGE		CONSIDER FOR CUSTODY DECREASE IF POINT RANGE		CONSIDER FOR CUSTODY INCREASE IF POINT RANGE		CONSIDER FOR CUSTODY DECREASE IF POINT RANGE	
SL-1 11-19		20-22		23-30		SL-4 11-19		20-26	
SL-2 11-19		20-23		24-30		SL-5 11-19		20-27	
SL-3 11-19		20-24		25-30		SL-6 11-19		20-27	
SECTION C					INSTITUTION ACTION				
1. TYPE OF REVIEW		E=EXCEPTION R=REGULAR		2. CURRENT CUSTODY		M-MAX 1=IN 0=OUT C=COMMUNITY		3. NEW CUSTODY	
4. DATE OF NEXT REVIEW		MONTH-DAY-YEAR		5. ACTION		APPROVE		DISAPPROVE	
6. CHAIRPERSON'S NAME					7. FOR EXCEPTION REVIEW NAME (WARDEN OR DESIGNEE)				
SIGNATURE (CHAIRPERSON)					SIGNATURE (WARDEN OR DESIGNEE)				

Appendix D

Level of Supervision Inventory

CRIMINAL HISTORY

- 1 Any prior convictions, adult/number ()
- 2 Two or more prior convictions ()
- 3 Three or more prior convictions
- 4 Three or more present offenses/number
- 5 Arrested under age 16
- 6 Ever incarcerated upon conviction
- 7 Escape history institution
- 8 Ever punished for institutional misconduct/number ()
- 9 Charge laid or parole/probation suspended during prior community supervision
- 10 Official record of assault/violence

EDUCATION/EMPLOYMENT

- 11 Currently employed
- 12 Frequently unemployed
- 13 Never employed for full year
- 14 Ever fired

School or when in school:

- 15 Less than grade 10
- 16 Less than regular grade 12
- 17 Suspended or expelled at least once

When homemaker, pensioner: #18 only. When school, work, unemployed: #18, #19, #20 apply

- 18 Participation/performance
- 19 Peer interactions
- 20 Authority interactions

FINANCIAL

- 21 Problems
- 22 Reliance upon social assistance

FAMILY/MARITAL

- 23 Dissatisfaction with marital or equivalent situation
- 24 Nonrewarding, parental
- 25 Nonrewarding, other relatives
- 26 Criminal, Family/spouse

RECOMMENDATION:

*LSI Total Score _____

Negative/Positive circumstances not given sufficient attention in the LSI
 Note:

ACCOMMODATION

- 27 Unsatisfactory
- 28 3 or more address changes, last year
- 29 High-crime neighborhood

LEISURE/RECREATION

- 30 No recent participation in an organized activity
- 31 Could make better use of time

COMPANIONS

- 32 A social isolate
- 33 Some criminal acquaintances
- 34 Some criminal friends
- 35 Few anticriminal acquaintances
- 36 Few anticriminal friends

ALCOHOL/DRUG PROBLEM

- 37 Alcohol problem, ever
- 38 Drug problem, ever
- 39 Alcohol problem, current
- 40 Drug problem, currently specify drug _____

Item #41-#45 scored only if #39 or #40 scored.

- 41 Law violations
- 42 Marital/Family
- 43 School/Work
- 44 Medical
- 45 Other clinical indicators—Specify _____

EMOTIONAL/PERSONAL

- 46 Moderate interference
- 47 Severe interference
- 48 Psychiatric treatment, past
- 49 Psychiatric treatment, present
- 50 Psychological assessment indicated Area _____

ATTITUDE/ORIENTATION

- 51 Supportive of crime
- 52 Unfavorable toward convention
- 53 Poor, toward sentence, past
- 54 Poor, toward supervision