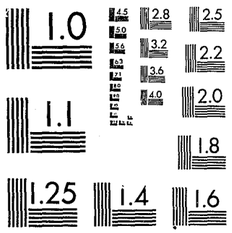

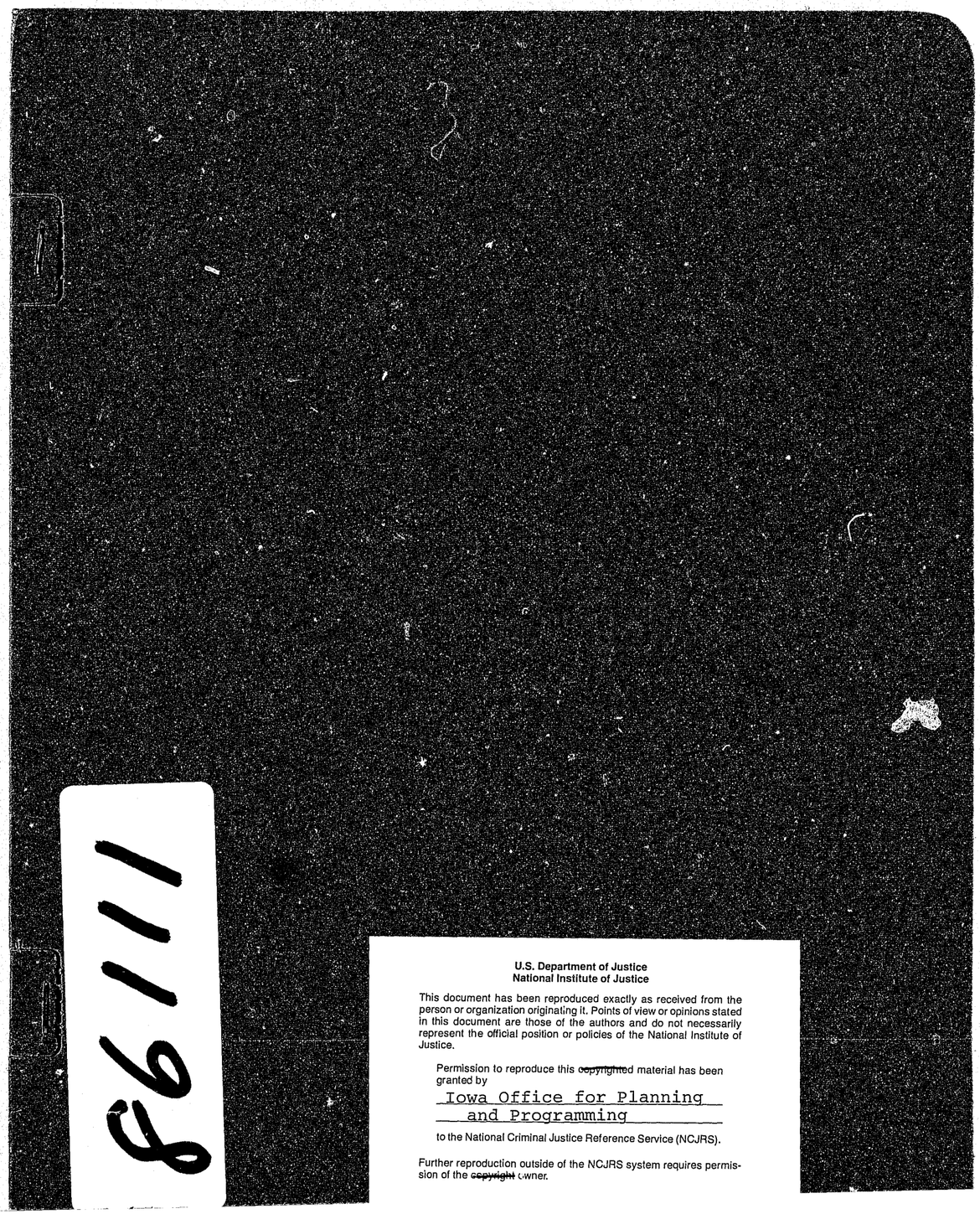

OFFENDER RISK ASSESSMENT: IMPLICATIONS FOR SENTENCING AND PAROLE POLICY

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Introduction

One of the major areas of concern to the Iowa Statistical Analysis Center since its inception in 1978 has been the formulation and implementation of explicit statistical aids to release decision-making in criminal justice. As a continuation of the author's work with the state's Bureau of Correctional Evaluation in the mid-seventies, the SAC has devoted much time and effort to the development of a system of offender risk assessment that would offer significant increases in predictive accuracy over current clinical assessments of judges, probation/parole officers, and the Iowa Board of Parole, among others.[1] The research to-date establishes conclusively that, with the aid of explicit decision guidelines based in-part on formal risk assessment:

1) Significant reductions in jail and prison populations can be achieved with little if any increase in recidivism rates and/or threat to the general public.

2) Significant reductions in recidivism rates, and the volume and seriousness of new crimes at the hands of corrections clients, can be obtained with no increase in jail and prison populations or in the costs of current correctional programming.

In addition, the formal decision guidelines - if and when fully implemented - will eliminate much of the case-to-case disparity inherent in the traditional mode of decision-making in the justice system. With the benefit of empirical evidence as embodied in the guidelines, there is now a viable alternative to the mandatory sentence provisions of Iowa's new criminal code (effective in 1978) which require imprisonment for forcible felonies[2] and set minimum prison terms for various classes of assaultive, repeat, and drug offenders. Finally, the guideline structure will serve as a means of making criminal justice policy more explicit and open to public debate. Currently it is difficult for those most concerned with criminal justice, including the Governor and Legislators, to determine just what these policies are and how they serve to meet the stated goals of the sentencing and corrections process.

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[1] It should be noted that Iowa continues to maintain its long-standing system of indeterminate sentencing and parole.

[2] Forcible felonies include Murder, Sexual Abuse, Robbery, Felonious Assault, Kidnapping, and Burglary and Arson in the First Degree.

Presently, SAC has implemented recently developed parole guidelines and has the enthusiastic support of the Board of Parole after a two-month trial effort. In addition, the sentencing guideline system developed by SAC is being tested in Polk County, Iowa with the cooperation of the sentencing judges and pre-sentence investigation staff in the county. Further, the risk assessment system is being used in Polk and Black Hawk Counties as an aid to pre-trial release-with-services decision-making. During the next fiscal year, the SAC hopes to expand the use of decision guidelines throughout Iowa's statewide community corrections system as input to release and supervision-level decisions.

In this paper, an attempt will be made to briefly outline the research upon which the risk assessment and decision guideline systems are based, and to discuss associated implications for sentencing and parole policy. To alert other states considering similar efforts, some of the problems, pitfalls, and constraints encountered in Iowa will be indicated.

Recidivism Research in Iowa

The research which culminated in the parole and sentencing guideline systems first began in 1975 with the onset of a continuing evaluation of community-based corrections programs in Iowa.[1] From January of 1974 through the early months of 1980, data on all clients of adult pre-trial release, probation, parole, and community residential programs were routinely collected and computerized for research and evaluation purposes. Likewise, similar data on prison inmates were computerized to provide a basis for the comparison of community and institutional programs. This combined data base provided a rare opportunity to study the characteristics and ultimate outcomes of corrections clients, the relative successes and failures of various approaches, and the decision-making patterns affecting the flow of offenders through the sentencing and corrections system. A wide variety of reports detailing conclusions drawn from analysis of these data have been released over the last six years.

A major focus of the ongoing research has been the identification of factors, both offender and program-related, that associate with - or predict - the success or failure of corrections clients and the frequency and seriousness of new criminal charges against them. Accepting the fact - apparent from the data - that recidivism rates and program outcomes are greatly affected by the characteristics of program clients, an attempt was made to develop an adequate means of "controlling" for these characteristics in order to legitimately compare the successes and failures of alternative correctional approaches. This - in turn - boiled down to the development of statistically efficient "risk assessment devices" that weighted various "risk factors" known at the time of admission to a program and that were established predictors of program success and failure. The resulting classification scheme would then be used to "control for risk"

[1] The responsibility for evaluation was statutorially placed with the Iowa Department of Social Services. The official vehicle for the evaluation - the Bureau of Correctional Evaluation - was phased out in 1978, with its responsibilities administratively delegated to several units within state government.

and allow comparative analyses of outcome.

Since 1975, at least 60 different risk assessment devices - some program-specific and others not - were developed from the existing data base and were applied both for research and evaluation purposes and for offender screening within the justice system. The primary force behind these many versions of risk assessment was the desire to maximize the predictive efficiency of the system, both within the sample of cases used to construct it, and within an independent validation sample. Periodically, however, it was necessary to synthesize the results to that point, in the form of one or more new devices, to make ongoing use of the research. For this reason, the risk assessment is viewed as being evolutionary in nature. When, in mid-1980, it was determined that little additional progress could be made, the system itself was put into final form and validated, and a full-fledged effort began to institutionalize it. In addition, all previous research and evaluation results were catalogued and tested to ensure validity under the finalized system.

Before discussing details of the final version of the risk assessment system, or the evaluative results drawn from its application, it is best to summarize our major conclusions concerning the phenomenon of recidivism itself, and its prediction. These observations are those that stood the test of time and validation, and for which some rational basis in human behavior could be identified. I would note, however, that we found no consistent pattern that fell outside the domain of reason and consistency. *Indeed, our results are reasonable, and they are consistent!* Further, many of them agree with findings from similar studies conducted outside of Iowa, such as recent endeavors by INSLAW and the Rand Corporation.[1]

1) *Contrary to statements and assumptions made by certain prominent researchers in criminal justice,[2] recidivism and violence can be predicted - at least in Iowa - with sufficient accuracy to support the use of predictive restraint.[3] For example, it has been demonstrated by the SAC that an Iowa parole policy based strictly on predictive restraint could enhance the crime preventive power of imprisonment - via incapacitation - by as much as 36% with no increase in the prison population. If both sentencing and parole release were to be based strictly on predictive restraint, then this figure would increase to 70%,[4]*

[1] See, for example: Kristen Williams, The Scope and Prediction of Recidivism, Institute for Law and Social Research, Washington, D.C., 1978. Peter Greenwood, Rand Research on Criminal Careers: Progress to Date, the Rand Corporation, Santa Monica, California, 1979.

[2] See, for example: Norval Morris, The Future of Imprisonment, Chicago: The University of Chicago Press, 1974. Andrew von Hirsch, Doing Justice, New York: Hill and Wang, 1976.

[3] That is, of the detention and resulting incapacitation of individuals based on a perceived likelihood of continued criminal behavior upon release, and particularly with reference to the use of statistical methods of prediction.

[4] We estimate that the proposed sentencing and parole guideline systems, which incorporate both predictive **restraint** and "desert", could enhance incapacitation by as much as 60% with no increase in prisoners.

i.e., if prison space were to be allotted in direct proportion to the threat to society posed by those persons convicted of prison-eligible offenses, then the incapacitative potential of imprisonment in Iowa would increase by approximately 70% with no increase in prisoners. This potential, in turn, is based on the relatively high level of predictive accuracy of the risk assessment system developed in Iowa,[1] and with the current failure of judges and the parole board to achieve high levels of predictive restraint.

2) *In line with the previous comment, there is extensive evidence that the justice system in Iowa is very much ineffective as a direct crime control agent. To wit, among convicted felons who are legitimate candidates for imprisonment,[2] there is virtually no relationship between the probability of imprisonment - or the expected time to be served if imprisoned - and the threat posed to society by the release of such individuals on probation or parole.*

3) *The fundamental factor associated with the above-noted failure is that current sentencing and parole policies target violent and older repeat offenders as the more deserving of imprisonment, whereas the vast majority of the most active among convicted criminals are younger repeat offenders convicted of non-violent crimes.*

4) *That the younger repeat offender is often the most likely to repeat (again) is supported by several well-established facts: a) arrest rates in the general population peak at age 18 and decrease dramatically thereafter, b) in line with a) there is a tendency for offenders to become less active in crime as they grow older (the "burn-out" effect), and c) younger offenders are more often involved with drugs, have fewer job skills and less education, are more often unemployed, have less extensive work histories, are less likely to hold a job, and are more often without wives and/or children. In addition, younger offenders exhibit less maturity and are less able to cope with stress and life difficulties.*

5) *There are several serious pitfalls to achieving high levels of predictive restraint in sentencing and parole release practices: a) many of the most serious crimes - which traditionally involve the highest rates of imprisonment and the longest prison terms - are highly situational in nature and are not indicative of the typical fare of a career criminal, b) based on what is often viewed as just and fair, the offender must establish a proven record of recidivism - as opposed to a potential for recidivism - before incarceration is viewed as warranted, with the result that the younger more active criminal is more often given the benefit of the doubt than is the less active older criminal with the longer or more serious adult record, c) some of the best indicators of a potential recidivist relate to the offender's juvenile record[3] rather than to the adult record, whereas the juvenile record is often given less - or no - weight by release decision-makers, d) the younger offender - and especially the teenager - is often afforded more latitude due to the young age and the idea that all non-violent offenders should have at least one chance as an adult, and to the perception that younger offenders are more impressionable and may respond better to rehabilitative endeavors than would older offenders, e) many states apparently lack adequate resources to imprison both those who are perceived as "deserving" imprisonment based on the seriousness of past and present crimes, and those who pose a serious risk of future criminality, and f) the public - not being fully sensitive to the findings of research studies - is more apt to support sanctions based on "desert" than on "predictive restraint" where the two conflict.*

[1] Approximately $300,000 and 3000 hours of staff time were devoted to this development over a five-year period.

[2] Namely, those for whom imprisonment is used with some frequency, such as repeat and violent offenders.

[3] Such as an early age at first arrest or conviction, the fact of a juvenile arrest, probation, or commitment, and the length of the juvenile record.

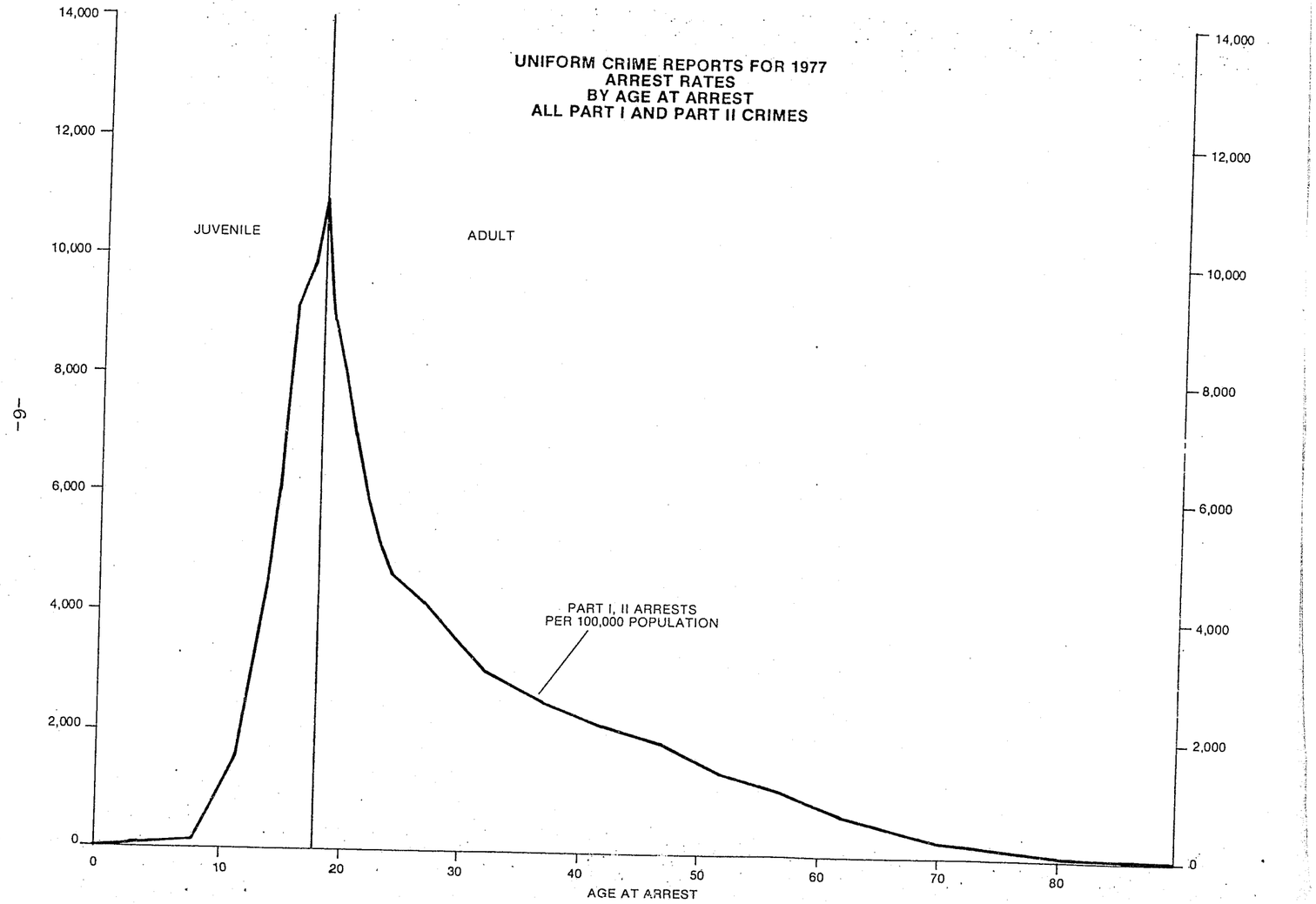
Age and Recidivism

Without explicit evidence to support the reality of the fact, it is difficult to fully appreciate the relative extent of the crime and recidivism problem among juveniles and young adults. The charts on the next two pages, which were constructed from data provided by the Iowa Uniform Crime Reports (UCR) program, demonstrates clearly that arrest rates peak dramatically in the late teens and early twenties in Iowa, and especially so for the serious Part I[1] crimes for which incarceration is more frequent. Despite the fact that those arrested for violent crimes tend to be older than property offenders, we still find that around 60% of violent offenders fall in the age range 15-24 at arrest, and about 30% in the range 15-19. UCR figures show that the arrest rate for Part I crimes more than halves between age 18 and age 21, halves again between age 21 and age 27, and then halves again between age 27 and age 37. We would note that the Part I arrest rate for 30 year-olds is only about one-sixth the rate for 18 year-olds. Of course, one can argue that with advancing age we find increasing sophistication and thus reduced likelihoods of arrest within the criminal element. Such an effect would have to be quite extreme, however, before it could even begin to explain the observed decline in arrest rates with age.

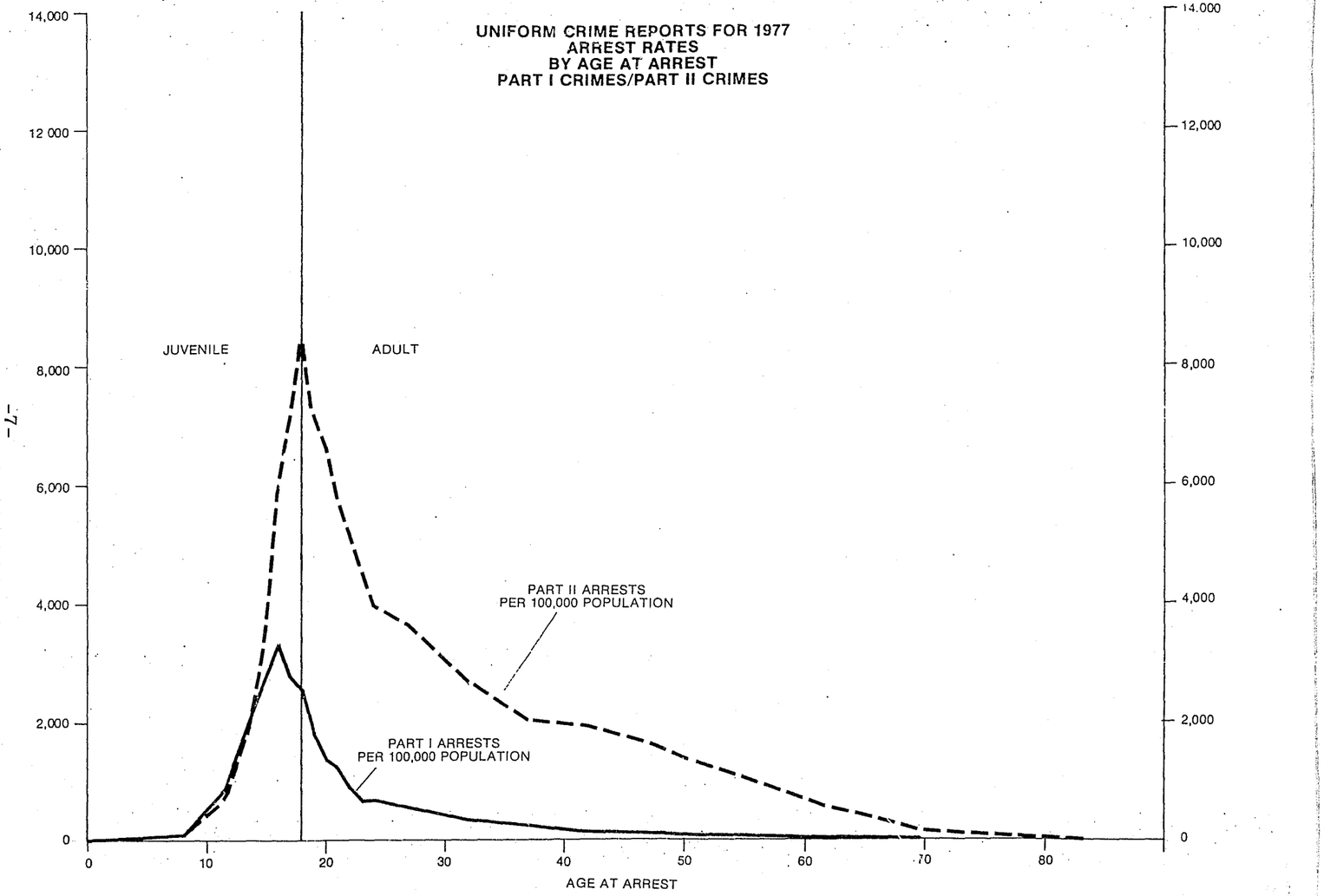
From the weight of the evidence, it is reasonable to conclude 1) that there are many more younger offenders than older offenders, and/or 2) that younger offenders are much more frequently arrested - and therefore in all probability are more actively involved in crime - than are older offenders. Common sense would seem to dictate that whatever leads to higher numbers of younger offenders would also lead to more frequent criminal acts among that group. There is the theory, however, that older offenders entering the justice system tend to be the more persistent among former offenders, and thus that older offenders, though fewer in number, are just as - or nearly as - active as their younger counterparts. There is also the theory that older individuals entering the justice system must have serious problems or they would not be bucking the odds against the arrest of citizens in their age group. To wit, there is always the suspicion that certain older offenders are truly atypical and cannot be "categorized", that some are professional criminals, and that many or most are not subject to constructive change, and thus are "bad risks". This would apply especially in the case of an older offender with a long prior

[1] Part I crimes include Murder/Manslaughter, Forcible Rape, Robbery, Aggravated Assault, Burglary, Larceny, and Motor Vehicle Theft.

UNIFORM CRIME REPORTS FOR 1977
ARREST RATES
BY AGE AT ARREST
ALL PART I AND PART II CRIMES



UNIFORM CRIME REPORTS FOR 1977
ARREST RATES
BY AGE AT ARREST
PART I CRIMES/PART II CRIMES



record where there may be doubt as to the extent of "burn-out". The fact of current involvement in such a case may well be perceived as an indication of a truly persistent or "habitual" criminal.

As a test of the theory that younger offenders are more frequently arrested, it is appropriate to consider re-arrest (or new charge) rates for offenders who do enter the criminal justice system. If younger offenders exhibit higher levels of criminal activity and higher arrest rates in general, this should be reflected in higher "re-arrest" rates for those recently arrested or convicted.

To test these theories, the SAC has closely examined re-arrest and new charge rates for adult probationers and parolees released during the mid-to-late seventies in Iowa, with particular reference to the interactive role of age and prior record as predictors of the frequency and seriousness of program failure and recidivism. Among many other similar analyses, the SAC examined "weighted" new charge rates for various combinations of 1) age at release on probation or parole, and 2) the total number of lifetime arrests for all crimes. The "weighted" nature of the rate reflects the assignment of weights to different categories of new criminal charges (up to 3 per offender) according to the perceived seriousness of the crime, with more weight given to crimes against persons and to Part I crimes.[1] The weighted rate thus reflects both the incidence of re-arrest and the seriousness of the resulting charges.

The table and chart on the next two pages summarize the results of this analysis,[2] and establish beyond doubt 1) that new charge rates are much higher among younger offenders, and especially among teenagers, 2) that such rates fall steadily - although not uniformly - through advancing age categories, 3) that younger repeat (previously arrested) offenders are much more likely to be again re-arrested, and 4) that older offender groups must exhibit extremely long arrest records to show new charge rates comparable to those for offenders under age 30.

To allow detailed comparisons of this type, linear equations were developed that approximate the relationships shown on the chart between lifetime arrests (A) and new charge rates (R) for the seven age categories:

AGE AT RELEASE	PREDICTING EQUATION (A≥2)
18	R = 9A+50
19	R = 11A+20
20	R = 6A+18
21-24	R = 6A+13
25-29	R = 6A+4
30-44	R = 4A+5
45+	R = 3A-3

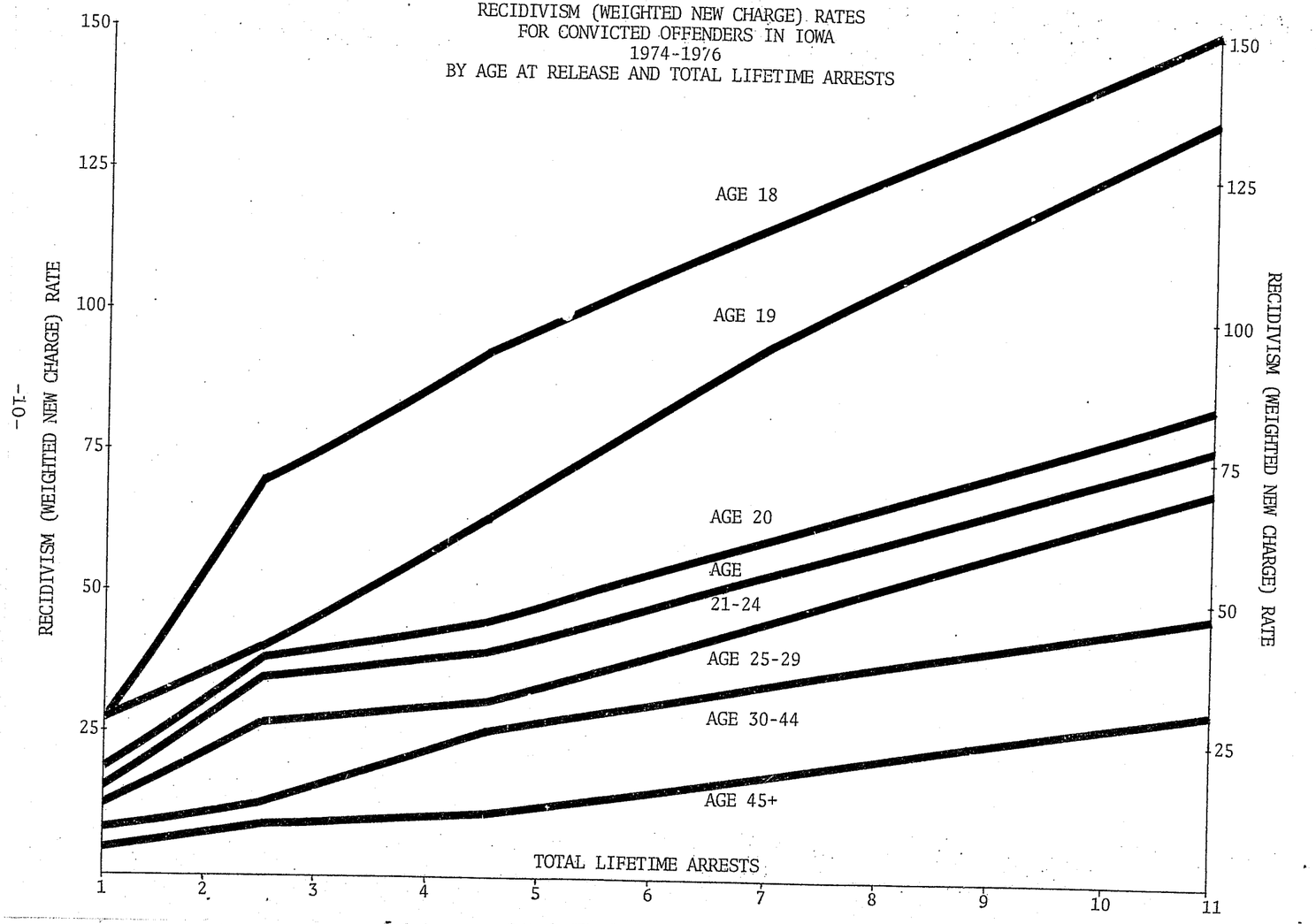
[1] The weighting scheme was as follows: Part I Violent - 4, Part I Property and Part II Violent - 3, Part II Property - 2, and all other crimes - 1.

[2] We note that the "recidivism curves" appearing in the chart were "smoothed" to allow extrapolation on total lifetime arrests, but the extent of such smoothing was minimal.

WEIGHTED NEW CHARGE RATES FOR CONVICTED OFFENDERS IN IOWA
1974-1976
BY AGE AT PROBATION/PAROLE RELEASE AND TOTAL LIFETIME ARRESTS

AGE AT PROBATION/ PAROLE RELEASE	TOTAL LIFETIME ARRESTS					ALL OFFENDERS
	1	2-3	4-5	6-8	9+	
18	26.3	69.1	92.0	114.3	159.2	61.5
	(318)	(191)	(76)	(51)	(55)	(691)
19	26.0	39.4	62.2	94.3	146.8	46.9
	(359)	(187)	(85)	(38)	(59)	(728)
20	19.2	37.9	45.5	59.4	92.1	37.5
	(262)	(188)	(69)	(44)	(65)	(628)
21-24	15.6	34.3	38.4	55.1	83.4	36.0
	(607)	(486)	(270)	(176)	(167)	(1706)
25-29	12.3	26.5	30.7	45.2	77.6	32.6
	(293)	(253)	(159)	(115)	(162)	(982)
30-44	7.8	12.1	22.1	32.2	48.6	22.3
	(357)	(239)	(142)	(110)	(235)	(1083)
45+	4.4	8.3	10.3	18.0	31.5	12.8
	(198)	(121)	(51)	(41)	(108)	(519)
ALL OFFENDERS	16.2	32.6	40.7	53.4	73.0	35.2
	(2394)	(1665)	(852)	(575)	(851)	(6337)

RECIDIVISM (WEIGHTED NEW CHARGE) RATES
FOR CONVICTED OFFENDERS IN IOWA
1974-1976
BY AGE AT RELEASE AND TOTAL LIFETIME ARRESTS



Using these equations, we can study the relationships among the three variables 1) current age or age at release, 2) lifetime arrests, and 3) recidivism (new charge) rate. The table below indicates, according to the recidivism equations, lifetime arrests corresponding to each age category and to various rounded rates of recidivism.[1]

LIFETIME ARRESTS CORRESPONDING TO OFFENDER AGE AND RECIDIVISM RATE

RECIDIVISM RATE	AGE AT RELEASE						
	18	19	20	21-24	25-29	30-44	45+
5	-	-	-	-	-	-	-
10	-	-	-	-	1	1	4
20	-	-	1	1	2.5	4	8
30	1	1	2	3	4	6	11
40	-	2	3.5	4.5	6	9	14
50	-	3	5	6	8	11	18
60	-	3.5	7	8	9	14	21
70	2	4.5	9	9.5	11	16	24
80	3	5.5	10	11	13	19	28
90	4.5	6.5	12	13	14	21	31
100	5.5	7	14	14.5	16	24	34
110	7	8	15	16	18	26	38
120	8	9	17	18	19	29	41
130	9	10	19	19.5	21	31	44
140	10	11	20	21	23	34	48
150	11	12	22	23	24	36	51

From the above, we can see for example, that offenders age 45 or over with 24 lifetime arrests pose about the same risk of recidivism as 18 year-olds with two lifetime arrests. Facts such as this, though firmly supported by empirical evidence, are highly non-intuitive and difficult to work with in a practical setting. This raises a point that I believe to be of paramount importance in any effort to incorporate statistical assessments of risk into traditional decision processes.

Namely, as long as risk assessment devices continue to be imperfect predictors of human behavior, which of course is unavoidable, decision-makers will continue to greet such methods with caution, and especially in situations where the results appear non-intuitive. With an imperfect instrument, the decision-maker is likely to make judgments as to when the instrument is in error, and these will likely be those cases where the result is non-intuitive or when a faulty decision is likely to lead to the most unfavorable consequences.[2]

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[1] This is not meant to indicate how the arrest record of a criminal maintaining a given level of activity would grow with advancing age, but rather how many more lifetime arrests an older offender would need to have - on the average - to pose the same current risk of recidivism as a younger offender.

[2] Such as the bad publicity and obvious harm that would arise from the repetition of a violent crime.

For example, this author had the occasion to complete risk assessments on all persons interviewed by the Iowa Board of Parole in April, 1981, including the case of a man currently convicted of second degree murder who had two previous manslaughter convictions in the late fifties and early sixties.

In this case, the three homicide arrests were the only arrests on the man's record, and all three crimes were highly situational in nature. According to the risk assessment, the man was rated as "low-medium risk" for both general recidivism and violence, which placed him among the very best risks in the State Penitentiary. Considering the nature of the crime, the two prior convictions, the time the man had served, and his favorable institutional adjustment, the parole guidelines system recommended release on parole. In this case, however, the Board concluded that the man was exceedingly dangerous and that the risk assessment result was clearly in error.[1]

The Iowa Offender Risk Assessment Scoring System

As previously stated, a major emphasis of the Iowa SAC has been with the development and implementation of a system of offender risk assessment that could offer significant advantages in improved offender screening within the justice system. The current version of this system - which the SAC views as evolutionary in nature - was developed from an analysis of offender characteristics associated with the probability of re-arrest and of unsuccessful completion of the offender's assigned release program.

Specifically, various "risk factors" and predictive combinations of such factors were identified from an analysis of computerized records of 6337 adult offenders[2] released from probation and parole caseloads[3] in Iowa during the three-year period 1974-1976. The development of the current version was completed in the late summer of 1980, and the system was then validated against a separate data set consisting of records of 9387 adult offenders released from probation and parole caseloads during 1977-1979.[4]

The present version of the risk assessment system incorporates two separate measures, one of the general risk of recidivism - which rates offenders according to the probability of re-arrest and the potential seriousness of new charges,[5] and the second a specific measure of the risk of new violence:

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[1] We cannot, however, make the judgment that the Board was in error in this case for obvious reasons. The case is interesting, nonetheless, since it points out that the "implied risk" in certain cases is enough to outweigh any form of empirical evidence to the contrary.

[2] Convicted of both misdemeanors and felonies.

[3] By discharge or revocation, or as an absconder not picked up.

[4] See Appendix I for a listing of data elements used in the risk assessment and for a discussion of the coding procedures.

[5] It was also structured to measure the risk of failure on probation or parole, whether as a result of new charges, absconding supervision, or technical violations.

GENERAL RISK[1]	VIOLENCE RISK
SUPER RECIDIVIST	SUPER RECIDIVIST
ULTRA-HIGH RISK	ULTRA-HIGH RISK
VERY-HIGH RISK	VERY-HIGH RISK
HIGH RISK	HIGH RISK
HIGH-MEDIUM RISK	HIGH-MEDIUM RISK
LOW-MEDIUM RISK	LOW-MEDIUM RISK
LOW RISK	LOW RISK
VERY-LOW RISK	VERY-LOW RISK
	NIL RISK

With the Iowa system, any adult offender charged with, or convicted of, a criminal offense - whether in Iowa or elsewhere - may be rated according to both general and violence risk. The table on the following page provides a risk profile of the 12,517 offenders in the combined construction/validation sample for which both measures of risk could be computed.[2]

Within the total sample, the High-Medium Risk category of general risk is what might be viewed as the "middle" category or as having nearly the same recidivism rates as the total group. Thus the SUPER RECIDIVIST, ULTRA-HIGH RISK, VERY-HIGH RISK, and HIGH RISK categories are those showing higher than average rates, while the LOW-MEDIUM RISK, LOW RISK, and VERY-LOW RISK categories are those showing lower than average rates. The reader will note from the table, then, that 64.4% of the total sample are rated as lower than average (general) risk, while 28.7% are rated as higher than average risk. The fact that lower risk offenders far outnumber higher risk counterparts suggests one of the main benefits of statistical risk assessment methods, namely the substantial narrowing of the population of potential repeat offenders to allow more cost-effective responses within the justice system.

In terms of the violence risk assessment, the situation is similar in that 68.0% of the study group are rated as lower than average risk for new violence (LOW RISK, VERY-LOW RISK, or NIL RISK).

As with all systems of formal risk assessment, the intent is to be able to isolate as high a percentage of recidivists as possible in higher risk levels, and as low a percentage as possible in lower risk levels, thereby achieving optimum predictive efficiency. This, of course, translates into the goal of achieving high recidivism rates in high risk levels and low recidivism rates in low levels. One would also desire to rate as higher than average risk about the same percentage of the population as those classified as recidivists. In the

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[1] Originally, the system provided just two levels of "high risk" offenders. After further research, however, it was determined that the data would support the splitting out of two additional categories - ULTRA-HIGH RISK and SUPER RECIDIVIST - showing extremely high recidivism rates.

[2] Of the total study population of 15,724 offenders, one or more of the data elements necessary to determine both risk ratings were missing in 3207 cases. It was determined, however, that the missing cases were very nearly representative of the complete population in the non-missing items.

OFFENDER RISK ASSESSMENT
STATE OF IOWA

GENERAL/VIOLENCE RISK PROFILE
COMBINED CONSTRUCTION/VALIDATION SAMPLE

GENERAL/VIOLENCE RISK RATING	SUPER RECIDIVIST	ULTRA-HIGH RISK	VERY-HIGH RISK	HIGH RISK	HIGH-MEDIUM RISK	LOW-MEDIUM RISK	LOW RISK	VERY-LOW RISK	NIL RISK	COMPOSITE
SUPER RECIDIVIST	49	39	202	0	0	0	0	0	0	290 (2.3%)
ULTRA-HIGH RISK	47	109	256	60	0	0	0	0	0	472 (3.8%)
VERY-HIGH RISK	0	134	0	0	1427	0	0	0	0	1561 (12.5%)
HIGH RISK	0	0	0	0	0	1269	0	0	0	1269 (10.1%)
HIGH-MEDIUM RISK	0	0	0	0	0	104	0	756	0	860 (6.9%)
LOW-MEDIUM RISK	0	0	0	0	0	304	0	2931	0	3235 (25.8%)
LOW RISK	0	0	0	0	0	0	174	1841	0	2015 (16.1%)
VERY-LOW RISK	0	0	0	0	0	0	148	0	2667	2815 (22.5%)
COMPOSITE	96 (0.8%)	282 (2.3%)	458 (3.7%)	60 (0.5%)	1427 (11.4%)	1677 (13.4%)	322 (2.6%)	5528 (44.2%)	2667 (21.3%)	12,517

Iowa study, no single definition of a recidivist was used, however, the overall magnitudes of most of the "recidivism rates" examined fell in the 25%-30% range. Accordingly, we would hope to classify about that percentage of offenders as higher than average risk, which is the case with the general risk assessment. With the violence assessment, however, the percentage (7.1%) classified as HIGH RISK or higher, which is only a fraction of the group of higher-than-average risks, is about the same as the rate of new violence within the total group.

As stated above, a number of different "recidivism rates" were examined during the course of the study to identify significant risk factors and predictive combinations of same. Simple re-arrest and program failure rates were considered, along with specific indicators of the seriousness of new charges, such as rates of new violence, new property crime, etc. When the current version of the risk assessment was put into final form, a search was made for that rate which would reflect both the general incidence of recidivism and program failure and the seriousness of new charges, and that would in addition yield the maximum predictive efficiency for the general risk assessment.[1] The final choice was a measure which we term "Threat to Public Safety" that is a "weighted" rate giving more weight to more serious categories of recidivism.[2]

Similarly, a "Threat of Violence" measure was defined that would reflect both the incidence and the seriousness of new violence within a

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[1] According to two measures of predictive efficiency, including the Mean Cost Rating (MCR) and a special measure developed by the author and termed the Coefficient of Predictive Efficiency (CPE).

[2] The computations involved the addition of points assigned to up to three new charges and to revocation/absconder/jail time status as follows:

5	New felony against person(s)
4	New Part I felony not against person(s)
3	New Part II felony not against person(s)
2	New indictable misdemeanor
1	New simple misdemeanor
2	Revocation of probation or parole
1	Absconder not picked up
1	Jail time for technical violations, absent the above

For any given offender group under study, the total points according to this schedule for all offenders in the group was computed, the average point total per offender was determined, and then this average was converted to a percentage by multiplying by $\frac{100\%}{4.56}$. The 4.56 figure represents the average total score for all those in the study group with at least one point. The resulting rate (Threat to Society) is higher than the simple incidence rate of recidivism when the average seriousness of new involvement in the group is greater than 4.56. "Threat to Public Safety" thus takes into account the tendency for certain types of offenders to violate probation or parole in a more serious manner.

group.[1]

The four tables that follow summarize the observed statistical validity of the system in explaining and predicting recidivism and new violence. The first table indicates 1) program failure rates (revocation/absconder status), 2) 18-month re-arrest rates,[2] and 3) "Threat to Public Safety" measures, for all categories of the general risk assessment in the combined construction/validation sample, thus allowing the reader to directly assess the validity of the general assessment. The second table provides "Threat of Violence" measures for all levels of violence risk. The third and fourth tables allow a determination of the extent of "shrinkage" in prediction from the construction to the validation sample,[3] and give an indication of how well the system might predict recidivism and new violence in actual practice (such as in the validation sample). With the ex post facto approach used to develop the system, there is always the possibility that certain of the observed associations are the result of random fluctuations.

To provide a more objective basis for evaluating the utility of the two assessments, the SAC has computed, from the information appearing in the tables, the Mean Cost Rating (MCR) and the Coefficient of Predictive Efficiency (CPE), which measure the degree of accuracy of risk assessment. Both measures vary between 0 and 1,[4] attaining 0 when there is no predictive accuracy whatsoever and 1 when prediction is perfect (or the equivalent of perfect in the case of CPE).

The following is a summary of observed MCR and CPE values for the general and violence assessments. In the case of the violence assessment, an adjustment was made to the criterion, and the higher risk levels were collapsed, to allow a legitimate comparison of MCR values between the general and violence assessments.[5]

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[1] Up to three new charges of a threatening or assaultive nature were considered, with two points assigned to each charge for a new felony against person(s) and one point assigned to each of other new charges for crimes against persons and weapons offenses. The simple average of total points over all members of a group was multiplied by 100% to obtain the "Threat of Violence" rating for the group.

[2] The percentage who were re-arrested within 18 months of release on probation or parole, together with the percentage incarcerated as technical violators who would have been expected (according to observed probabilities) to have been re-arrested within 18 months of release had they not been prevented from such by incapacitation.

[3] The term "shrinkage" refers to the reduction in the predictive power of identified risk factors or their combinations from the construction sample to the validation sample.

[4] MCR strictly varies within these limits, while CPE may hypothetically be greater than 1. See, for example, page 28 of SAC's report The Iowa Offender Risk Assessment Scoring System - Volume I.

[5] MCR is sensitive to the magnitude of the criterion measure in addition to the predictive efficiency of the device. Thus the overall "Threat of Violence" rating of 6.5% was scaled up to agree with the overall "Threat to Public Safety" rating of 26.5% for the general assessment. The high violence risk categories were then collapsed to keep the resulting rate under 100%, which is essential for computing MCR.

OFFENDER RISK ASSESSMENT
STATE OF IOWA
STATISTICAL VALIDITY OF GENERAL RISK ASSESSMENT
COMBINED CONSTRUCTION/VALIDATION SAMPLE

GENERAL RISK RATING	TOTAL CASES	REVOCATION/ ABSCONDER	REARRESTED 18 MONTHS	THREAT TO PUBLIC SAFETY
SUPER RECIDIVIST	290	64.3%	88.3%	95.2%
ULTRA-HIGH RISK	472	48.9%	78.6%	73.4%
VERY-HIGH RISK	1561	42.4%	66.6%	62.8%
HIGH RISK	1269	31.0%	51.8%	45.3%
HIGH-MEDIUM RISK	860	22.3%	34.6%	26.6%
LOW-MEDIUM RISK	3235	14.8%	22.8%	18.2%
LOW RISK	2015	7.4%	14.6%	9.4%
VERY-LOW RISK	2815	3.0%	8.2%	4.5%
ALL OFFENDERS	12,517	19.0%	31.0%	26.5%

OFFENDER RISK ASSESSMENT
STATE OF IOWA

STATISTICAL VALIDITY OF VIOLENCE RISK ASSESSMENT
COMBINED CONSTRUCTION/VALIDATION SAMPLE

VIOLENCE RISK RATING	TOTAL CASES	THREAT OF VIOLENCE
SUPER RECIDIVIST	96	68.4%
ULTRA-HIGH RISK	282	36.6%
VERY-HIGH RISK	458	28.4%
HIGH RISK	60	18.6%
HIGH-MEDIUM RISK	1427	12.9%
LOW-MEDIUM RISK	1677	7.8%
LOW RISK	322	5.1%
VERY-LOW RISK	5528	2.7%
NIL RISK	2667	0.7%
ALL OFFENDERS	12,517	6.5%

OFFENDER RISK ASSESSMENT
STATE OF IOWA

PREDICTIVE EFFICIENCY OF GENERAL RISK ASSESSMENT
COMPARATIVE RESULTS FOR CONSTRUCTION AND VALIDATION SAMPLES

GENERAL RISK RATING	TOTAL CASES			THREAT TO PUBLIC SAFETY		
	CONSTRUCTION	VALIDATION	COMBINED	CONSTRUCTION	VALIDATION	COMBINED
SUPER RECIDIVIST	101	189	290	100.0%	92.8%	95.2%
ULTRA-HIGH RISK	168	304	472	77.0%	71.5%	73.4%
VERY-HIGH RISK	485	1076	1561	66.2%	61.4%	62.8%
HIGH RISK	436	833	1269	44.1%	45.8%	45.3%
HIGH-MEDIUM RISK	310	550	860	28.7%	25.4%	26.6%
LOW-MEDIUM RISK	1188	2047	3235	21.3%	16.4%	18.2%
LOW RISK	781	1234	2015	11.2%	8.3%	9.4%
VERY-LOW RISK	1235	1580	2815	3.7%	5.0%	4.5%
ALL OFFENDERS	4704	7813	12,517	25.9%	26.8%	26.5%

OFFENDER RISK ASSESSMENT
STATE OF IOWA

PREDICTIVE EFFICIENCY OF VIOLENCE RISK ASSESSMENT
COMPARATIVE RESULTS FOR CONSTRUCTION AND VALIDATION SAMPLES

VIOLENCE RISK RATING	TOTAL CASES			THREAT OF VIOLENCE		
	CONSTRUCTION	VALIDATION	COMBINED	CONSTRUCTION	VALIDATION	COMBINED
SUPER RECIDIVIST	34	62	96	76.5%	63.9%	68.4%
ULTRA-HIGH RISK	79	203	282	38.0%	36.0%	36.6%
VERY-HIGH RISK	157	301	458	27.4%	28.9%	28.4%
HIGH RISK	28	32	60	17.9%	19.3%	18.6%
HIGH-MEDIUM RISK	456	971	1427	13.2%	12.7%	12.9%
LOW-MEDIUM RISK	572	1105	1677	8.7%	7.4%	7.8%
LOW RISK	135	187	322	5.2%	5.0%	5.1%
VERY-LOW RISK	2069	3459	5528	3.3%	2.4%	2.7%
NIL RISK	1174	1493	2667	0.5%	0.8%	0.7%
ALL OFFENDERS	4704	7813	12,517	6.3%	6.6%	6.5%

Sample	General Risk MCR	General Risk CPE	Violence Risk MCR	Violence Risk CPE[1]
CONSTRUCTION	.650	.866	.685	2.163
VALIDATION	.639	.787	.741	1.755
COMBINED	.637	.807	.733	2.048

Two things would be noted with regard to the predictive accuracy of the Iowa system:

1) there is little - if any - shrinkage in predictive efficiency of the general assessment from the construction to the validation samples, indicating that the system would remain accurate if put into practice, and

2) the values of MCR and CPE are much higher for the Iowa system than for other systems developed outside of Iowa for which the appropriate data needed to compute these measures were available to the author.[2]

The reader will observe that MCR and CPE values are significantly higher for the violence assessment than for the general assessment. This result very much contradicts previous conclusions of the Iowa SAC, and of many prominent researchers in the area, that violence is much more difficult to predict than is general recidivism. The fact that high values of MCR and CPE were obtained for the violence assessment component of the Iowa system lends substantial support to the potential utility of violence risk assessment as an adjunct to general risk assessment in screening for risk.

It is notable, also, that - by definition and according to empirical evidence - all of those rated as SUPER RECIDIVIST or ULTRA-HIGH RISK in general are rated at least HIGH RISK for violence, while all of the latter are rated at least VERY-HIGH RISK in general. Thus, there is logical consistency between the two assessments, including the result that the very highest risk offenders (general risk) pose a significant threat of violence. The SAC views this aspect of the Iowa system to be one of the more useful and desirable, since we can identify a subgroup of the high risk category who pose a substantial threat to the public, both for general crime and for violence. We view the group of those rated SUPER RECIDIVIST or ULTRA-HIGH RISK - either in general or for violence - as being prime targets for incapacitation. This group, amounting to 896 or 7.2% of the 12,517-offender study population, consists of those falling in the upper left-hand corner of the risk profile on page 14. Although a very minor portion of the study population, this group forms a much higher percentage of persons committed

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[1] The extremely high values of CPE are due to the exceedingly high "Threat of Violence" ratings observed in the highest violence risk levels as compared to the (relatively) low ratings in the complete samples. CPE is much more sensitive to such high ratings than is MCR. (Note CPE is based on the "variance" of the threat ratings).

[2] The author reviewed at least 20 other systems and found no value of MCR higher than .41. Although the high value of MCR for the general assessment (.64-.35) is due in part to the choice of a criterion measure (Threat to Public Safety), it should be noted that no criterion gave an MCR lower than .55.

to state correctional institutions.[1] Accordingly, this distinction could be a very useful one for pinpointing potential targets for tighter security and for longer prison terms as a means of reducing violence both within the prisons and among parolees.

The reader will recall from an earlier description that the study sample consisted of both probationers and parolees (ex-prisoners). The natural question then arises as to the extent of validity of the system for either of the two groups. In this vein, the SAC found, for example, that the general assessment was about equally accurate for probationers and parolees,[2] while the violence assessment was somewhat more accurate for parolees.[3] Based on these results, SAC has concluded that the risk assessment system would provide significant advantages both to sentencing judges and to the Iowa Board of Parole as a screening tool. Further, both the general and violence assessments have been incorporated into systems of sentencing and parole guidelines currently being tested in Iowa.[4]

Contrasts with Traditional Decision-Making

Before attempting to judge the potential impact of formal risk assessment on system decision-making, correctional populations, recidivism, and public safety, it is useful to study the degree of association between "risk" - assessed empirically - and past release decisions and time-served averages.

The following table summarizes the association between general risk ratings and sentencing results in Iowa among persons convicted of felonies in the state during 1974-1976:[5]

GENERAL RISK RATING	TOTAL SENTENCED	SENTENCED TO: STRAIGHT PROBATION	LOCAL FACILITY	STATE PRISON
SUPER RECIDIVIST	247	48.2%	16.6%	35.2%
ULTRA-HIGH RISK	333	51.7%	12.3%	36.0%
VERY-HIGH RISK	1355	53.3%	17.4%	29.3%
HIGH RISK	854	64.8%	12.9%	22.4%
HIGH-MEDIUM RISK	628	59.9%	9.9%	30.3%
LOW-MEDIUM RISK	2075	76.5%	5.4%	18.0%
LOW RISK	1138	80.1%	3.7%	16.2%
VERY-LOW RISK	999	87.8%	1.4%	10.8%
High Risk	2789	56.1%	15.3%	28.5%
Lower Risk	4840	77.5%	4.8%	17.7%
ALL OFFENDERS	7629	69.7%	8.6%	21.6%

[1] The SAC estimates that this figure may be as high as 30-35%.

[2] In terms of the values of MCR. CPE for the general assessment was much higher for probationers than for paroles.

[3] It was true, however, that the violence assessment recorded a high CPE value in the probation portion of the sample.

[4] As previously stated, the SAC has estimated that the crime preventive potential of imprisonment could be enhanced by as much as 60% with full implementation of these guidelines.

[5] The table does not reflect the sentencing of persons who were on probation or parole for prior offenses at the time of sentencing.

To determine the extent to which general risk ratings predict sentencing outcomes - as per the data above - we can again rely on MCR and CPE. Taking two criterion measures of sentencing outcome, namely 1) imprisonment, and 2) incarceration (in a state or local facility), we obtain the following results:

Prediction	MCR	CPE
IMPRISONMENT	.232	.118
INCARCERATION	.334	.174

We can now compare the above values with corresponding values of MCR and CPE when the criterion measures are of recidivism:[1]

Prediction	MCR	CPE
RE-ARREST	.581	.564
PROGRAM FAILURE[2]	.550	.689
THREAT TO PUBLIC SAFETY	.637	.807

Clearly, the general risk ratings of the risk assessment system are much better predictors of recidivism than they are of imprisonment or incarceration. Based on the observed values of MCR and CPE, the SAC feels that the relationship between the risk of recidivism and the probability of either imprisonment or incarceration in Iowa are weak at best,[3] and could be improved considerably through the provision of risk assessment information to sentencing judges. In the next section, we will discuss a proposed vehicle for providing such information - namely a system of sentencing guidelines structured around general and violence risk ratings.

Next, we can examine the association between general risk ratings and the average (mean) prison term in Iowa among 2171 offenders committed to state prisons in Iowa during 1974-1976:[4]

[1] Within the combined study sample of 12,517 probationers and parolees.

[2] Revocation or absconder not picked up.

[3] The SAC admits that there are other factors at least as important - or more so - than the risk of recidivism in the sentencing decision. We would note, however, that even when such factors as offense severity and prior felony record are taken into account, the lack of association of risk with the probability of imprisonment or incarceration remains. This fact will be addressed in the next section.

[4] Including 1651 directly committed offenders and 520 committed as probation violators. For those still imprisoned, estimated term lengths were computed from previous release rates for such individuals.

GENERAL RISK RATING	TOTAL COMMITTED	AVERAGE TERM LENGTH[1]
SUPER RECIDIVIST	133	27.8
ULTRA-HIGH RISK	166	25.0
VERY-HIGH RISK	579	26.7
HIGH RISK	279	25.3
HIGH-MEDIUM RISK	221	26.0
LOW-MEDIUM RISK	465	24.9
LOW RISK	209	23.5
VERY-LOW RISK	119	24.3
High Risk	1157	27.2
Lower Risk	1014	24.8
ALL OFFENDERS	2171	25.6

To check on the extent to which general risk ratings predict time served in prison, we again compute MCR and CPE:

Prediction	MCR	CPE
TIME SERVED	.031	.002

Both MCR and CPE in this case are negligible, indicating virtually no association whatsoever between risk and time served.[2] As with the sentencing results, we have drawn the conclusion - to be supported more fully in the next section - that there is considerable room for improvement in the association between risk and time served. This could be accomplished through the provision of risk assessment information to the Iowa Board of Parole via formal parole guidelines as discussed below.

The obvious question raised by the preceding observations is "why?" Why is "the risk of recidivism" not a good predictor of the probability of imprisonment or of time served in prison? As discussed in the second section, the fundamental factor associated with this failure is that traditional sentencing and parole policies target violent and older[3] repeat offenders as the most deserving of imprisonment, whereas the majority of the most active criminals are younger repeat offenders convicted of non-violent crimes.

For example, in the study sample of 12,517 probationers and parolees used to develop and validate the risk assessment system, about half of the group of 290 SUPER RECIDIVISTS[4] - namely those judged most likely

[1] Months served prior to release by parole or expiration of sentence.

[2] Again, we would comment that this result fails to take into account other legitimate factors considered in the parole decision, such as the nature of the crime and the length of the sentence.

[3] In Iowa's adult correctional system over 60% of offenders are under age 25 at the time of release. Thus, the term "older" usually refers to offenders age 25 or over.

[4] According to general risk.

to repeat - were 18 and 19 year-old[1] non-violent probationers with prior conviction records.[2] Despite their young age, these individuals generally had long arrest records dating back to their early teens, and most had been committed as juveniles. The young super recidivists recorded very high rates of new property crime on probation - especially burglary and car theft, could not hold jobs arranged for them by probation authorities, and generally created havoc with the rules of probation. Although seldom charged with new violent crimes, such offenders tended to be charged with more serious offenses, but were less likely to have their probations revoked, than were many older recidivists.

Most of the remaining SUPER RECIDIVISTS in the study sample were offenders in their twenties who had long arrest records dating back to early ages, as well as serious adult conviction and incarceration records. They tended to be older versions of the younger SUPER RECIDIVISTS, namely the results of previous failures to rehabilitate younger highly active offenders.

Of particular note within the twenties group is a category of SUPER RECIDIVISTS prone to new violence. These tended to be parolees in their late twenties who were convicted of violent crimes on the current sentence. Most of these individuals had been arrested for the current offense while in their early to middle twenties, and had reached the late twenties by the time they were released on parole.

One further group of violence-prone offenders consists of parolees age 30 or over who had long prison and arrest records, a history of alcohol problems, and who were divorced at the time of release. Such individuals tended to be re-arrested for both alcohol-related and violent offenses.

One way to contrast those most likely to repeat with those most likely to be imprisoned is to compare criminal career profiles of both groups. The chart on the next page was constructed to provide just such a comparison. In the top half of the chart, we see a graphical representation of the typical criminal career of an offender in each of the six levels of the original version of the risk assessment system.[3] In the bottom half, we see a similar representation of criminal careers for five categories of "incarceration rating" within the same group of offenders. The Incarceration Rating System was devised from 1974-1976 sentencing data to predict or explain the sentences imposed by judges during that period. The general rule here is that the higher the incarceration rating, the more likely is the offender to be imprisoned by the judge. Important factors in this decision are the seriousness of the crime, the offender's prior adult record, and his or her age.[4]

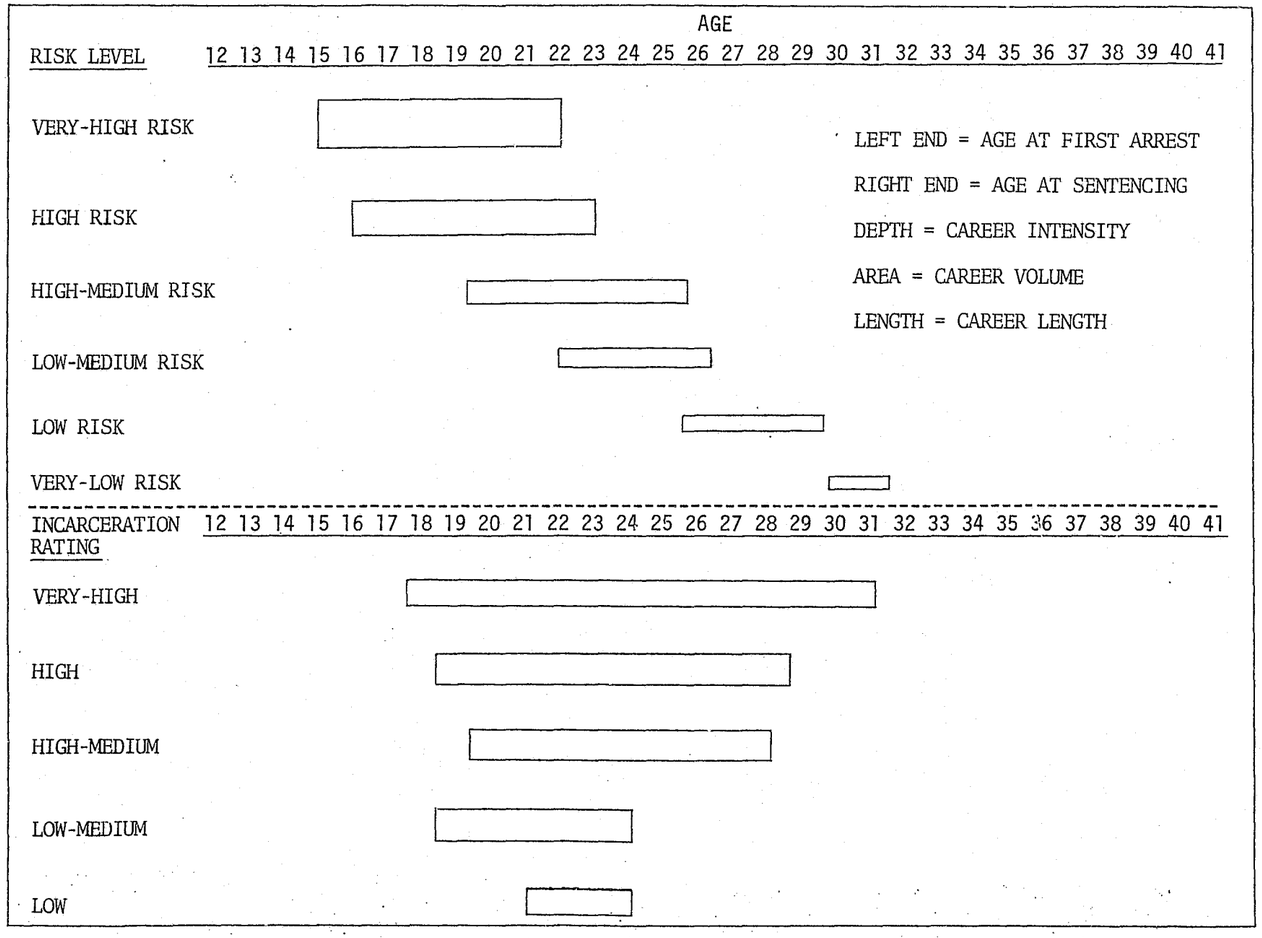
[1] That is, they were 18 and 19 years old at the time of release on probation or parole.

[2] By "conviction," we mean an adult criminal conviction or a juvenile probation or commitment.

[3] That is, the system as it stood prior to the refinements that led to the breaking out of ULTRA-HIGH RISK and SUPER RECIDIVIST categories.

[4] All else equal, older offenders were more likely to be sent to prison than were younger counterparts.

CRIMINAL CAREER CHARACTERISTICS OF CONVICTED FELONS
1974-1976
BY OFFENDER RISK RATING AND INCARCERATION RATING



The chart is set up to succinctly depict the typical criminal career of an offender in any "risk" or "incarceration" category according to 1) age at first arrest (left end of the bar), 2) age at sentencing (right end of the bar), 3) career volume in terms of the sum of arrests, convictions, and incarcerations (area of the bar), 4) career length as years from first arrest to current sentencing (length of the bar), and 5) career intensity or the frequency of arrests, convictions, and incarcerations per year since first arrest (the depth of the bar).[1]

Accordingly, we have the following general rules:

a) the farther left the left end of the bar, the earlier the age at first arrest,

b) the farther left the right end of the bar, the earlier the (current) age at sentencing,

c) the greater the area of the bar, the greater the sum total of arrests, convictions, and incarcerations,

d) the longer the bar, the longer the criminal career (from age at first arrest), and

e) the deeper or thicker the bar, the more intense the criminal career in terms of frequency of involvement since age at first arrest.

From an examination of the chart, we can see a very clear distinction between classifying offenders by "the risk of recidivism" and by "the probability of incarceration". Obviously, in comparing the high risk offender with the offender most likely to be incarcerated, we see that the former is younger (right end of bar farther left), has an earlier age at first arrest (left end of bar farther left), and a shorter but more intense (bar deeper) criminal career of somewhat less volume (area).

From the vertical "flow" of the bars, we can see that age plays exactly opposite roles in "risk" and "probability of incarceration," the younger offender being higher risk but less likely to be incarcerated. Likewise, age at first arrest and career intensity play a much greater role in "risk" than in the "probability of incarceration," while career length plays a much greater role in the latter.

In reviewing data such as these, it becomes clear that the criminal justice system is set up to exact greater penalties from the older repeat offender with what might be viewed as a "proven record of recidivism," rather than from the younger repeat offender with the greater "potential for future recidivism." It would frequently seem that by the time an offender really gains the serious attention of the authorities, he or she is past the most crime-prone years and is - in many cases - well on the way to "burn-out." This fact could have serious implications for career criminal prosecution programs that are directed to the older offender with the serious adult record. Analyses in Iowa

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[1] Career intensity for any category was computed by dividing career volume by career length to get volume per year.

would tend to indicate that there really is very little further potential - under current constraints imposed by law - to gain much in the way of crime control from future efforts to incapacitate older career criminals. That significant gains can be made from incapacitating more of the most active younger offenders is apparent from the fact that most of the latter are currently placed on probation in Iowa. It is partly to this end that the parole and sentencing guideline structures discussed below are directed.

In addition to the observed contrasts between the younger and the older repeater[1] that could hold fruit for improving criminal justice decision-making, there is the more general problem of evaluating criminal histories and offender backgrounds to determine whether they indicate the likelihood of continued criminality. Iowa SAC analyses indicate that even within any age group of repeaters or non-repeaters, there is considerable variation in risk associated with the nature of the past record, and with other offender characteristics such as drug/alcohol abuse history, skill level and education, and marital status, among others. There is apparently considerable potential for improving risk assessment screening just through the ability of computerized data processing to correctly - or more efficiently - interrelate the various factors in a case to determine the net effect on recidivism potential.

The lack of acuity of the human mind in making such judgments, and the lack of explicit guidelines as to who should be incarcerated - and for how long - have led to considerable disparity in sentencing and parole decisions in Iowa. In fact, much of the potential for reducing incarceration in the state, without increased threat to the community, lies in the ability of sentencing and parole guidelines to correct for this disparity and to more uniformly release the "better risks" at the expense of the "worse risks," with a net reduction in incarceration.

One other point that should be made concerns the difference - evident from this study - between a current conviction for a violent crime, and the likelihood of new violence on probation or parole. Our analyses indicate that violent offenders can be split very clearly and efficiently between those who pose a significant risk of new violence and those who do not. In fact, for violent offenders the threat of new violence jumps abruptly from LOW-MEDIUM RISK to ULTRA-HIGH RISK, signifying the clarity of the distinction.

In this regard, I would point out that the probability of a new charge

[1] We wish not to mislead the reader by the suggestion that most older repeaters are "good risks." For example, about half of those in the study sample with prior prison terms - most of whom were age 25 or older at release - are rated HIGH RISK or higher. Rather, we find that - comparatively speaking - the younger repeater is much higher risk than the older repeater. For example, among those with prior juvenile or adult commitments (25% of the sample), those under age 25 at release were 50% higher risk (on the average) than were those age 25 or over, whereas the latter group were at least 50% more likely to be imprisoned if convicted of a felony.

of violence for probationers and parolees in Iowa is extremely small to begin with,[1] and is small (about 5-6%) even among those convicted of violent crimes. It results, then, that those violent offenders not rated as high risks for continued violence show very low levels of new violence, and pose no more of a threat of violence than do property offenders. Nonetheless, there is the natural skepticism that any given violent offender is "potentially" dangerous, and accordingly extreme care is usually exercised by judges and parole boards in releasing such individuals. This gets back to that concept of "implied risk" that poses such a bar to improved decision-making in the system. It is our view that this particular question - and its ultimate resolution - holds the key to the eventual impact of parole and sentencing guideline systems based on risk assessment.

As one aspect of the implied risk question, there is the spectre of mandatory sentences and their potential impact on prison populations. Under Iowa's new criminal code, which took effect in January of 1978, mandatory sentence provisions were enacted that prohibit the granting of probation to anyone convicted of a forcible felony,[2] and that set mandatory minimum prison terms (such as 5 years for use of a firearm in a forcible felony) for various classes of violent, habitual, and drug offenders.

According to SAC research, these provisions call for more frequent and longer prison terms for offender classes already showing high levels of incarceration. The research shows clearly that the "implied threat" of offenders affected by these statutes is in most cases not an "actual threat," and that accordingly much of the additional incarceration will add little to public protection. These facts have been communicated to the Iowa legislature, and we expect some countering action to be taken in the next year or two.

I would comment, here, that the parole and sentencing guideline systems discussed below were set up independent of any consideration of the mandatory sentence provisions. Thus, until the provisions are altered or withdrawn, the guidelines systems would not be expected to achieve the stated levels of impact on prison populations and public protection.

Sentencing and Parole Guidelines

The sentencing and parole guideline systems discussed here were developed after a careful study of past release decisions in Iowa, and of the performance of probationers and parolees in the state. An effort was made to structure the guidelines along both "descriptive" and "prescriptive" lines, i.e., according to observed past decision patterns and to certain key improvements recommended by the research. Throughout the development, an earnest attempt was made to keep both aspects in the proper perspective. In the final analysis, we believe that the resulting structure shows a workable balance between the two approaches. This

[1] Only about 2.5% of convicted felons are charged with new felonies against persons while on probation or parole.

[2] Murder, Sexual Abuse, Robbery, Felonious Assault, and Burglary or Arson in the First Degree.

impression remains after two months of testing of both systems, and - indeed - all indications are that the guidelines will be favorably received as tools for improving the quality of ongoing sentencing and parole decisions in Iowa.

The basic structure of both systems lies in the classification of offenders according to four separate ratings as follows:

A. Offense Severity (Code Category/Sentence and Offense Type)
B. Prior Felony Record (Adult Felony Convictions)
C. General Risk Rating
D. Violence Risk Rating

The incorporation of items A and B reflects the "descriptive nature" of the guidelines, while items C and D reflect its "prescriptive" nature.

The Offense Severity rating is according to the Iowa criminal code classification of offenses (with associated maximum indeterminate prison sentences), and according to the nature of the crime itself (against persons/violent or not against persons/non-violent):[1,2]

Offense Severity

Class B Felony
Class C Felony - Violent or Against Person(s)
Class C Felony - Non-Violent and Not Against Person(s)
Class D Felony - Violent or Against Person(s)
Class D Felony - Non-Violent and Not Against Person(s)
Aggravated Misdemeanor - Violent or Against Person(s)
Aggravated Misdemeanor - Non-Violent and Not Against Person(s)

The Prior (Adult) Felony Record rating considers both the number of previous adult prison commitments and whether or not the offender has previously been convicted as an adult of a prison-eligible crime.[3] In the case of the sentencing guidelines, this category may range from "No Prior Felony Conviction" to "Seven+ Prior Prison Terms," depending on the offender's general risk rating. In the case of the parole guidelines, a single rating scheme is used since the exact number of prior commitments historically has played less of a role in the parole decision than in the sentencing decision. The form of the Prior Felony Record item in the parole system is as follows:

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[1] Class A felonies are not considered in the guidelines since they carry mandatory life sentences. Also, all Class B felonies are for crimes against persons.

[2] Maximum indeterminate sentences are as follows: Class B - 25 years, Class C - 10 years, Class D - 5 years, and Aggravated Misdemeanor - 2 years. Under current good and honor time laws, these sentences can be reduced to the following: Class B - 10 years and 4 months, Class C - 4 years, 8 months, and 10 days, Class D - 2 years and 10 months, and Aggravated Misdemeanor - 1 year and 4 months. An offender must be paroled to leave prison prior to the expiration of the good/honor time adjusted sentence. The latter may increase in accordance with the seriousness of prison misconduct.

[3] Including felonies and aggravated misdemeanors in Iowa.

Prior Felony Record

Two+ Prior Prison Terms
One Prior Prison Term
No Prior Prison Term (But with prior felony conviction)
No Prior Felony Conviction

The sentencing guideline structure shown on the following two pages specifies one of five available "guideline sentences" for all possible combinations of the four items previously indicated. The five sentencing alternatives deal only with the type of sentence given as opposed to the length of the sentence. They are as follows:

Guideline Sentence

P - State Prison Sentence
R - Sentence to Community Residential Facility
S+R - Shock Probation followed by Residential Placement
S/R - Shock Probation or Residential Placement but not both
"-" - Release on Probation, Fine, etc.

The "Community Residential Facility" alternative refers to local facilities currently operating at the pre- or non-institutional level as sentencing alternatives for judges,[1] and not to state-operated post-institutional halfway houses. The "Shock Probation" alternative involves the reconsideration by the sentencing judge of a prison sentence within 90 days of commitment, where the offender is thereby released to the supervision of a probation authority.

The final option, labelled "Release on Probation, Fine, etc.," refers mainly to straight probation supervision, and includes both deferred sentences and suspended prison sentences. Fines are also covered here since they are frequently imposed for crimes such as carrying weapons and second offense drunken driving, which are aggravated misdemeanors.

The reader will note the following from examination of the sentencing guidelines structure:

1) Uniform prison sentences are called for in the case of SUPER RECIDIVISTS (general risk). This feature allows for a substantial benefit in improved public protection and in reduced probation violation rates. The proposed high frequency of imprisonment for ULTRA-HIGH RISK offenders is likewise dedicated to this end.

2) Shock probation is never listed as an alternative for those who have previously been imprisoned, for the obvious reason that the shock effect is much less - if there at all - in such cases.

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[1] Usually, such placements are for four to six months, and are frequently followed by release to the supervision of a probation officer.

STATE OF IOWA
PRESCRIPTIVE SENTENCING GUIDELINES
FELONY AND AGGRAVATED MISDEMEANOR CONVICTIONS
BASED ON OFFENSE SEVERITY, PRIOR FELONY RECORD, AND GENERAL/VIOLENCE RISK ASSESSMENT

GENERAL RISK RATING/ PRIOR ADULT FELONY RECORD	OFFENSE SEVERITY						
	CLASS B FELONY	CLASS C FELONY		CLASS D FELONY		AGGRAV. MISDEM.	
		VIOLENT	OTHER	VIOLENT	OTHER	VIOLENT	OTHER
SUPER RECIDIVIST	P	P	P	P	P	P	P
ULTRA-HIGH RISK							
VIOLENCE RISK							
SUPER RECIDIVIST	P	P	P	P	P	P	P
ULTRA-HIGH RISK	P	P	P	P	P	P	P
VERY-HIGH RISK							
PRIOR PRISON TERM	P	P	P	P	P	P	P
NO PRIOR PRISON TERM	P	P	P	P	P	P	S+R
HIGH RISK							
PRIOR PRISON TERM	P	P	P	P	P	P	P
NO PRIOR PRISON TERM	P	P	P	P	S+R	P	S/R
VERY-HIGH RISK							
TWO+ PRIOR PPISON TERMS	P	P	P	P	P	P	P
ONE PRIOR PRISON TERM	P	P	P	P	P	P	R
NO PRIOR PRISON TERM	P	P	S+R	P	S/R	P	-
NO PRIOR FELONY CONV.	P	P	S/R	P	-	P	-
HIGH RISK							
THREE+ PRIOR PRISON TERMS	P	P	P	P	P	P	P
TWO PRIOR PRISON TERMS	P	P	P	P	P	P	R
ONE PRIOR PRISON TERM	P	P	P	P	R	P	-
NO PRIOR PRISON TERM	P	P	S/R	P	-	S+R	-
NO PRIOR FELONY CONV.	P	P	-	S+R	-	S/R	-
HIGH-MEDIUM RISK							
FOUR+ PRIOR PRISON TERMS	P	P	P	P	P	P	P
THREE PRIOR PRISON TERMS	P	P	P	P	P	P	R
TWO PRIOR PRISON TERMS	P	P	P	P	R	P	-
ONE PRIOR PRISON TERM	P	P	R	P	-	R	-
NO PRIOR PRISON TERM	P	P	-	S+R	-	-	-
NO PRIOR FELONY CONV.	P	S+R	-	S/R	-	-	-

(continued)

PRESCRIPTIVE SENTENCING GUIDELINES (continued)

GENERAL RISK RATING/ PRIOR ADULT FELONY RECORD	OFFENSE SEVERITY						
	CLASS B FELONY	CLASS C FELONY		CLASS D FELONY		AGGRAV. MISDEM	
		VIOLENT	OTHER	VIOLENT	OTHER	VIOLENT	OTHER
LOW-MEDIUM RISK							
FIVE+ PRIOR PRISON TERMS	P	P	P	P	P	P	P
FOUR PRIOR PRISON TERMS	P	P	P	P	P	P	R
THREE PRIOR PRISON TERMS	P	P	P	P	R	P	-
TWO PRIOR PRISON TERMS	P	P	R	P	-	R	-
ONE PRIOR PRISON TERM	P	P	-	R	-	-	-
NO PRIOR PRISON TERM	P	S+R	-	-	-	-	-
NO PRIOR FELONY CONV.	S+R	S/R	-	-	-	-	-
LOW RISK							
SIX+ PRIOR PRISON TERMS	P	P	P	P	P	P	P
FIVE PRIOR PRISON TERMS	P	P	P	P	P	P	R
FOUR PRIOR PRISON TERMS	P	P	P	P	R	P	-
THREE PRIOR PRISON TERMS	P	P	R	P	-	R	-
TWO PRIOR PRISON TERMS	P	P	-	R	-	-	-
ONE PRIOR PRISON TERM	P	R	-	-	-	-	-
NO PRIOR PRISON TERM	S+R	-	-	-	-	-	-
NO PRIOR FELONY CONV.	S/R	-	-	-	-	-	-
VERY-LOW RISK							
SEVEN+ PRIOR PRISON TERMS	P	P	P	P	P	P	P
SIX PRIOR PRISON TERMS	P	P	P	P	P	P	R
FIVE PRIOR PRISON TERMS	P	P	P	P	R	P	-
FOUR PRIOR PRISON TERMS	P	P	R	P	-	R	-
THREE PRIOR PRISON TERMS	P	P	-	R	-	-	-
TWO PRIOR PRISON TERMS	P	R	-	-	-	-	-
ONE PRIOR PRISON TERM	R	-	-	-	-	-	-
NO PRIOR PRISON TERM	-	-	-	-	-	-	-
NO PRIOR FELONY CONV.	-	-	-	-	-	-	-

KEY TO SENTENCE CODES

P - State Prison Sentence
R - Sentence to Community Residential Facility
S+R - Shock Probation followed by Residential Placement
S/R - Shock Probation or Residential Placement but not both
"-" - Release on Probation, Fine, etc.

3) Guideline sentences are "graded" to provide a cushion between the prison and probation options. The obvious grading is 1) P, 2) S+R, 3) S/R, 4) "-" for those not previously imprisoned (in most cases), and is 1) P, 2) R, 3) "-" in other cases.

4) The only reference to violence risk ratings is within the ULTRA-HIGH RISK category of general risk. The reason for this is twofold: a) a prison sentence is the only alternative specified for those rated SUPER RECIDIVIST for general recidivism, and thus no further grading by violence risk is necessary within this category, and b) within the VERY-LOW to VERY-HIGH general risk categories, the level of violence risk is determined precisely by the combination of general risk and offense severity, as follows:[1]

GENERAL RISK RATING	OFFENSE TYPE: Non-Violent/ Non-Persons	OFFENSE TYPE: Violent/Persons
VERY-HIGH RISK	High-Medium	Ultra-High
HIGH RISK	Low-Medium	Low-Medium
HIGH-MEDIUM RISK	Very-Low	Low-Medium
LOW-MEDIUM RISK	Very-Low	Low-Medium
LOW RISK	Very-Low	Low
VERY-LOW RISK	Nil	Low

5) As general risk diminishes, the Prior Adult Felony Record categorization expands. This is to ensure that imprisonment is uniform within the highest category of this item, e.g., we would not want to recommend other than a prison sentence for someone with 50 prison terms.

As a guide to the incorporation of descriptive aspects of sentencing patterns into the guideline structure, and as a vehicle for determining the potential impact of the guidelines, the SAC has placed heavy emphasis on the examination of offender characteristics and sentencing outcomes among felons sentenced in Iowa during 1974-1976.[2,3] In particular, the 1974-1976 data were used to determine what the impact of the guidelines might have been on prison commitments and other aspects of sentencing had they used by sentencing judges during that period.[4]

By applying the guideline structure to a detailed classification profile of the 1974-1976 sentenced population of 7629 convicted felons, we were able to arrive at "hypothetical" figures for the numbers and percentages of offenders who would have received certain sentences under guideline usage. Here, for example, is a comparison of actual and "hypothetical" guideline rates of imprisonment for the various sentencing offense (or offense severity) categories reflected in the guidelines:

[1] That is, in such cases the violence risk is implicit in other ratings.

[2] The reader may want to refer back to the table showing the association between general risk ratings and sentencing outcomes during this period.

[3] More recent data on sentencing of the type needed to support guideline research were not available.

[4] Our analyses of hypothetical guideline sentencing for this period assume "strict" adherence to the guidelines, else we would not be able to determine the resulting sentencing outcomes.

OFFENSE CATEGORY	NUMBER IMPRISONED: Actual	NUMBER IMPRISONED: Guideline	RATE OF IMPRISONMENT: Actual	RATE OF IMPRISONMENT: Guideline
Class A Felony	23	23	100.0%	100.0%
Class B Felony	296	340	65.5%	75.2%
Class C Felony				
-Non-Violent	376	352	15.2%	14.2%
-Violent	208	216	46.6%	48.4%
Class D Felony				
-Non-Violent	457	212	16.8%	7.8%
-Violent	136	57	66.2%[1]	27.7%
Aggravated Misdemeanor				
-Non-Violent	103	57	9.9%	5.5%
-Violent	52	52	19.3%	19.3%
Non-Violent	936	621	15.0%	10.0%
Violent	715	688	51.2%	49.3%
ALL OFFENSES	1651	1309	21.6%	17.2%

First note that under the guidelines, total (direct court)[2] prison commitments would have dropped from 1651 to 1309, or by 20.7%, with the corresponding rate of imprisonment dropping from 21.6% to 17.2%.

Note also that prison commitments for non-violent offenses would have dropped from the observed 936 to 621, or by 33.7%, while commitments for violent offenses would have changed but slightly, dropping from 715 to 688, or by 3.8%. The fact that the noted reduction in commitments falls almost entirely in the category of non-violent offenses should allay the fears of certain concerned critics of risk assessment who have felt that use of such methods by sentencing judges would lead to increased commitments of non-violent offenders. This attitude, no doubt, grew from published statements that young non-violent repeat offenders pose the greatest threat of recidivism, yet are frequently placed on probation.

The reader will observe from the table above that the great bulk of the reduction in commitments under the guidelines would fall in the less serious Class D Felony and Aggravated Misdemeanor categories, as we can see more clearly from the following:

[1] The observed high rate of imprisonment (66.2%) for the "Class D Felony - Violent" category is most likely due to plea bargaining practices wherein a guilty plea and prison sentence are agreed to in exchange for a reduced charge and sentence.

[2] This result applies to direct court commitments, but not to commitments of probation violators. As discussed below, if probation violators were to be included in these figures, then we could say that total commitments under the guidelines would have dropped from 2171 to 1767, or by 18.6%.

OFFENSE CATEGORY	NUMBER IMPRISONED		RATE OF IMPRISONMENT	
	Actual	Guideline	Actual	Guideline
Class A, B, C Felony	903	931	26.6%	27.4%
Class D Felony or Aggravated Misdemeanor	748	378	17.7%	8.9%
ALL OFFENDERS	1651	1309	21.6%	17.2%

We see, in fact, that commitments for the more serious Class A, B, and C Felonies would actually have increased under the guidelines, whereas commitments for the less serious Class D Felonies and Aggravated Misdemeanors would have been cut in half.

In comparing actual and guideline sentencing results according to the type of sentence imposed, we find the following:

TYPE OF SENTENCE	TYPE OF SENTENCING	
	Actual	Guideline
Prison Sentence	21.6% (1651)	17.2% (1309)
Local Facility or Shock Probation	8.6% (659)	14.3%[1] (1088)
Probation, Fine, etc.	69.7% (5319)	68.6% (5232)

The reader will observe that despite a drop in prison commitments, the guidelines would have led to an increase in the total numbers of offenders serving some time in a state or local facility, from 2310 to 2397, or by 3.8%. The decrease in longer-term incarceration is thus more than made up for - in terms of numbers of people sentenced - by an increase in short-term incarceration.

Among the 5978 offenders not directly imprisoned by the judges during 1974-1976, 520 or 8.7% were eventually committed to prison as probation violators, thereby increasing total commitments from 1651 to 2171.

[1] Such an increase in the use of these alternatives would have necessitated a corresponding increase in local bedspace.

Taking into account risk ratings and corresponding revocation rates, we calculate that of the 6320 offenders who would not have been committed under the guidelines, 458 or 7.2% would have eventually been committed as probation violators. Thus the guidelines would have led to a reduction in probation revocation commitments from 520 to 458, or by 11.9%, thereby effecting a reduction in total prison commitments from 2171 to 1767, or by 18.6%.

We would note that despite the increase of 344 in non-prison (probation) sentences under the guidelines, both the number of probation violators and the rate of probation violation decrease. This fact is due, of course, to the inclusion of general and violence risk assessments in the guidelines, and to the resulting higher rate of imprisonment for those most likely to violate probation. This raises the question of the actual impact of the guidelines on public safety, and particularly in terms of any change in the threat to society posed by the release of higher and lower risk offenders.

To begin, it is of interest to compare actual and guideline rates of imprisonment and incarceration[1] for various classes of higher and lower risk offenders:

GENERAL RISK RATING	TOTAL SENTENCED	IMPRISONED		INCARCERATED	
		Actual	Guideline	Actual	Guideline
SUPER RECIDIVIST	247	35.2%	100.0%	51.8%	100.0%
ULTRA-HIGH RISK	333	36.0%	87.1%	48.3%	100.0%
VERY-HIGH RISK	1355	29.3%	34.5%	46.7%	80.2%
HIGH RISK	854	22.4%	17.6%	35.2%	33.4%
HIGH-MEDIUM RISK	628	30.3%	14.6%	40.1%	27.4%
LOW-MEDIUM RISK	2075	18.0%	2.5%	23.5%	11.2%
LOW RISK	1138	16.2%	0.8%	19.9%	3.3%
VERY-LOW RISK	999	10.8%	0.2%	12.2%	0.3%
ALL OFFENDERS	7629	21.6%	17.2%	30.3%	31.4%

From the table, we can conclude that the guidelines would have led to a much closer relationship between the general risk of recidivism and the probability of either imprisonment or incarceration. The reader will recall that in the last section, values of MCR and CPE were given for these relationships as they were exhibited in the actual pattern of sentencing observed during 1974-1976. Here, then, are the comparative results for both actual sentencing and hypothetical guideline sentencing:

[1] The term "incarceration" refers to longer term imprisonment, shock probation and local incarceration in a county jail or a residential facility.

Prediction	MCR Actual	MCR Guideline	CPE Actual	CPE Guideline
INMPRISONMENT	.232	.805	.118	2.115
INCARCERATION	.334	.816	.174	1.154

The observed dramatic increases in MCR and CPE associated with the sentencing guidelines illustrate the high-level potential of the guidelines to increase public protection, and thereby to provide a more cost-effective system of sentencing. To determine the impact of the guidelines on public protection, it was necessary to assign "threat ratings" to individual offenders to determine how the flow or distribution of such threat is altered under the guideline structure. A convenient system of such ratings is provided by the "Threat to Public Safety" criterion measure used to assess the predictive efficiency of the general risk assessment system. Thus, the "Threat Ratings" assigned to various convicted felons will be according to the following schedule:

OFFENDER CATEGORY (general risk)	THREAT RATING
SUPER RECIDIVIST	.952
ULTRA-HIGH RISK	.734
VERY-HIGH RISK	.628
HIGH RISK	.453
HIGH-MEDIUM RISK	.266
LOW-MEDIUM RISK	.182
LOW RISK	.094
VERY-LOW RISK	.045

For any given group of offenders, the THREAT RATING of that group is defined as the sum of all individual THREAT RATINGS according to the above schedule. Thus, if a group contains 10 SUPER RECIDIVISTS, 20 HIGH RISK offenders, and 10 LOW RISK offenders, the THREAT RATING for that group of 40 offenders would be:

$$\text{THREAT RATING} = 10 \times .952 + 20 \times .453 + 10 \times .094 = 19.52$$

By examining the distribution of the overall THREAT RATING - for the 7629 felons sentenced during 1974-1976 - according to both actual sentencing and hypothetical guideline sentencing, we can estimate the impact of the guidelines on public safety.[1]

We first compute the overall THREAT RATING as follows:

[1] We would note that public safety would also be effected by time served for those imprisoned and how risk factors would change over time. Here, however, we look only at the sentencing decision itself to keep the analysis reasonably simple.

OFFENDER CATEGORY	TOTAL SENTENCED	THREAT RATING Individual	THREAT RATING Group
SUPER RECIDIVIST	247	.952	235.14
ULTRA-HIGH RISK	333	.734	244.42
VERY-HIGH RISK	1355	.628	850.94
HIGH RISK	854	.453	386.86
HIGH-MEDIUM RISK	628	.266	167.05
LOW-MEDIUM RISK	2075	.182	377.65
LOW RISK	1138	.094	106.97
VERY-LOW RISK	999	.045	44.96
TOTAL	7629	----	2413.99 → 2414

Here, then, is the distribution of the total threat (2414) posed by the 7629 sentenced offenders, both under actual sentencing during 1974-1976 and under hypothetical guideline sentencing:

SENTENCE CATEGORY	TOTAL CASES Actual	TOTAL CASES Guideline	THREAT RATING Actual	THREAT RATING Guideline
Direct Prison Sentence	1651	1309	647.5	844.5
Local Facility or Shock Probation	659	1088	308.8	538.5
Probation, Fine, etc.	5319	5232	1457.7	1030.9
Probation Violation Commitment	520	458	259.4	188.2
Any Commitment	2171	1767	906.9	1032.7
Successful Community Sentence	5458	5862	1057.1	1381.3
ALL SENTENCES	7629	7629	2414	2414

To determine the hypothetical impact of the guidelines on public safety, we must specify the extent to which any category of threat indicated above is realized, i.e., is not prevented or negated by incapacitation. To this end, we take the conventions, based on other SAC research, that 1) a direct prison sentence completely cancels threat, 2) a local facility placement or a shock probation sentence, in which the offender is not subsequently imprisoned as a probation violator, negates one-half the threat, 3) a local facility placement or a shock probation sentence, in which the offender is subsequently imprisoned as a probation violator, negates three-fourths the threat, 4) a probation placement or a fine, in which the offender is not subsequently imprisoned as a probation violator, leaves threat undiminished,[1] and 5) a probation placement or a fine, in which the offender is subsequently imprisoned as a probation violator, negates one-half the threat.

[1] Remember that the observed THREAT RATINGS are based on actual experiences of probationers and parolees.

With these conventions, we find the following levels of "REALIZED THREAT" and corresponding percentages of "POTENTIAL THREAT:"

SENTENCE CATEGORY	REALIZED THREAT Actual	REALIZED THREAT Guideline	% OF POTENTIAL THREAT Actual	% OF POTENTIAL THREAT Guideline
Direct Prison Sentence	0	0	0%	0%
Local Facility or Shock Probation	140.6	246.2	46%	46%
-No Commitment	126.8	223.1	50%	50%
-Commitment	13.8	23.1	25%	25%
Probation, Fine, etc.	1355.7	983.0	93%	95%
-No Commitment	1253.7	935.1	100%	100%
-Commitment	102.0	47.9	50%	50%
Probation Violation Commitment	115.8	71.0	45%	38%
Any Commitment	115.8	71.0	13%	7%
Successful Community Sentence	1380.5	1158.2	92%	84%
ALL SENTENCES	1496.3	1229.2	62.0%	50.9%

According to the above, the changes in threat associated with use of the guidelines would break out as follows:

Sentence Type	% Change in Threat to Society
Local Facility or Shock Probation	+75.1%
Probation, Fine, etc.	-27.5%
Both of Above	-17.9%

Thus, we can conclude that use of the guidelines by sentencing judges during 1974-1976 could hypothetically have reduced the threat to society posed by released offenders by 17.9%, and the threat posed by straight probationers[1] by 27.5%.

We would close our discussion of the sentencing guidelines by summarizing the hypothetical impact of same on prison commitments, risk assessment, and public safety as follows:

Impact Type	Impact
Prison Commitments	- 18.6%
Risk Assessment[2]	+138.2%
Public Safety	- 17.9%

[1] That is, those placed directly on probation.

[2] The impact of risk assessment in terms of improved association between the risk of recidivism and the probability of incarceration, as reflected in the increased value of MCR for this association.

The parole guidelines structure, which was developed to extend the benefits of risk assessment to the parole decision, is represented on the following three pages. The form of the guidelines specifies a range of months to be served prior to release on parole based on possible combinations of the four measures 1) GENERAL RISK OF RECIDIVISM, 2) RISK OF VIOLENCE, 3) OFFENSE SEVERITY, and 4) PRIOR FELONY RECORD, as discussed previously.

The parole system was developed from a combination of the recidivism research, which led to the risk assessment system, and a study of past time served patterns in Iowa. A wide range of potential factors considered in the parole decision were examined and the best predictors of time served were noted and were taken into consideration in parole guidelines development. For a more thorough treatment of the research on which the parole guidelines are based, the reader should refer to the SAC report Parole Policy in Iowa: Current Perspectives, which was released earlier this year. The report may be obtained upon request to the SAC (see last page of Appendix I).

Since a detailed discussion of the potential impact of the parole guidelines system is given in the parole policy report, no attempt will be made here to reiterate this material. Rather, we provide the following table, which compares observed average prison terms (in number of months served) during 1974-1976 with hypothetical average terms that would apply under use of the parole guidelines system:

GENERAL RISK RATING	TOTAL COMMITTED	AVERAGE TERM LENGTH (months) Actual	AVERAGE TERM LENGTH (months) Guideline
SUPER RECIDIVIST	133	27.8	50.0
ULTRA-HIGH RISK	166	25.0	40.2
VERY-HIGH RISK	579	26.7	31.2
HIGH RISK	279	25.3	24.8
HIGH-MEDIUM RISK	221	26.0	22.1
LOW-MEDIUM RISK	465	24.9	17.6
LOW RISK	209	23.5	13.5
VERY-LOW RISK	119	24.3	10.7
ALL OFFENDERS	2171	25.6	25.6

Under the existing form of the guidelines, the average prison term would not have changed from the observed 25.6 months, however, the incapacitating power of the average prison term, which is based on the risk to society posed by the offender, is considerably enhanced. SAC estimates that incapacitation would have risen by 21.6% had the

STATE OF IOWA
PRESCRIPTIVE PAROLE GUIDELINES
EXPECTED MONTHS TO BE SERVED PRIOR TO PAROLE
BASED ON OFFENSE SEVERITY, PRIOR FELONY RECORD, AND GENERAL/VIOLENCE RISK ASSESSMENT

GENERAL RISK RATING/ PRIOR FELONY RECORD	OFFENSE SEVERITY						
		CLASS C FELONY		CLASS D FELONY		AGGRAV. MISDEMEANOR	
	CLASS B FELONY	AGAINST PERSONS	NOT AGAINST PERSONS	AGAINST PERSONS	NOT AGAINST PERSONS	AGAINST PERSONS	NOT AGAINST PERSONS
SUPER RECIDIVIST							
VIOLENCE RISK							
SUPER RECIDIVIST							
TWO+ PRIOR PRISON TERMS	82-86	58-62	-----	38-41	-----	20-22	-----
ONE PRIOR PRISON TERM	78-82	55-59	-----	36-39	-----	19-21	-----
NO PRIOR PRISON TERM	74-78	52-56	-----	34-37	-----	18-20	-----
NO PRIOR FELONY CONV.	70-74	49-53	-----	32-35	-----	17-19	-----
ULTRA-HIGH RISK							
TWO+ PRIOR PRISON TERMS	70-74	49-53	41-44	34-36	31-33	18-20	17-18
ONE PRIOR PRISON TERM	66-70	46-50	39-42	32-35	29-31	17-19	16-17
NO PRIOR PRISON TERM	62-66	43-47	37-40	30-33	27-29	16-18	15-16
NO PRIOR FELONY CONV.	58-62	40-44	35-38	28-31	25-27	15-17	14-15
VERY-HIGH RISK							
TWO+ PRIOR PRISON TERMS	-----	-----	38-41	-----	29-31	-----	16-17
ONE PRIOR PRISON TERM	-----	-----	36-39	-----	27-29	-----	15-16
NO PRIOR PRISON TERM	-----	-----	34-37	-----	25-27	-----	14-15
NO PRIOR FELONY CONV.	-----	-----	32-35	-----	23-25	-----	13-14
HIGH RISK							
TWO+ PRIOR PRISON TERMS	-----	-----	35-38	-----	27-29	-----	15-16
ONE PRIOR PRISON TERM	-----	-----	33-36	-----	25-27	-----	14-15
NO PRIOR PRISON TERM	-----	-----	31-34	-----	23-25	-----	13-14
NO PRIOR FELONY CONV.	-----	-----	29-32	-----	21-23	-----	12-13

(continued)

STATE OF IOWA
PRESCRIPTIVE PAROLE GUIDELINES
EXPECTED MONTHS TO BE SERVED PRIOR TO PAROLE
BASED ON OFFENSE SEVERITY, PRIOR FELONY RECORD, AND GENERAL/VIOLENCE RISK ASSESSMENT
(continued)

GENERAL RISK RATING/ PRIOR FELONY RECORD	OFFENSE SEVERITY						
		CLASS C FELONY		CLASS D FELONY		AGGRAV. MISDEMEANOR	
	CLASS B FELONY	AGAINST PERSONS	NOT AGAINST PERSONS	AGAINST PERSONS	NOT AGAINST PERSONS	AGAINST PERSONS	NOT AGAINST PERSONS
ULTRA-HIGH RISK							
VIOLENCE RISK							
SUPER RECIDIVIST							
TWO+ PRIOR PRISON TERMS	73-77	53-57	-----	34-37	-----	18-20	-----
ONE PRIOR PRISON TERM	69-73	50-54	-----	32-35	-----	17-19	-----
NO PRIOR PRISON TERM	65-69	47-51	-----	30-33	-----	16-18	-----
NO PRIOR FELONY CONV.	61-65	44-48	-----	28-31	-----	15-17	-----
ULTRA-HIGH RISK							
TWO+ PRIOR PRISON TERMS	61-65	44-48	36-39	30-33	27-29	16-18	15-16
ONE PRIOR PRISON TERM	57-61	41-45	34-37	28-31	25-27	15-17	14-15
NO PRIOR PRISON TERM	53-57	38-42	32-35	26-29	23-25	14-16	13-14
NO PRIOR FELONY CONV.	49-54	35-39	30-33	24-27	21-23	13-15	12-13
VERY-HIGH RISK							
TWO+ PRIOR PRISON TERMS	-----	-----	33-36	-----	25-27	-----	14-15
ONE PRIOR PRISON TERM	-----	-----	31-34	-----	23-25	-----	13-14
NO PRIOR PRISON TERM	-----	-----	29-32	-----	21-23	-----	12-13
NO PRIOR FELONY CONV.	-----	-----	27-30	-----	19-21	-----	11-12
HIGH RISK							
TWO+ PRIOR PRISON TERMS	-----	-----	30-33	-----	23-25	-----	13-14
ONE PRIOR PRISON TERM	-----	-----	28-31	-----	21-23	-----	12-13
NO PRIOR PRISON TERM	-----	-----	26-29	-----	19-21	-----	11-12
NO PRIOR FELONY CONV.	-----	-----	24-27	-----	17-19	-----	10-11
VERY-HIGH RISK							
TWO+ PRIOR PRISON TERMS	55-60	40-44	26-29	26-29	19-21	14-16	11-12
ONE PRIOR PRISON TERM	51-56	37-41	24-27	24-27	17-19	13-15	10-11
NO PRIOR PRISON TERM	47-52	34-38	22-25	22-25	15-17	12-14	9-10
NO PRIOR FELONY CONV.	43-48	31-35	20-23	20-23	13-15	11-13	8-9

(continued)

STATE OF IOWA
PRESCRIPTIVE PAROLE GUIDELINES
EXPECTED MONTHS TO BE SERVED PRIOR TO PAROLE
BASED ON OFFENSE SEVERITY, PRIOR FELONY RECORD, AND GENERAL/VIOLENCE RISK ASSESSMENT

(continued)

GENERAL RISK RATING/ PRIOR FELONY RECORD	OFFENSE SEVERITY						
		CLASS C FELONY		CLASS D FELONY		AGGRAV. MISDEMEANOR	
	CLASS B FELONY	AGAINST PERSONS	NOT AGAINST PERSONS	AGAINST PERSONS	NOT AGAINST PERSONS	AGAINST PERSONS	NOT AGAINST PERSONS
HIGH RISK							
TWO+ PRIOR PRISON TERMS	43-48	31-35	23-26	20-23	17-19	10-12	9-10
ONE PRIOR PRISON TERM	39-44	28-32	21-24	18-21	15-17	9-11	8-9
NO PRIOR PRISON TERM	35-40	25-29	19-22	16-19	13-15	8-10	7-8
NO PRIOR FELONY CONV.	31-36	22-26	17-20	14-17	11-13	7-9	6-7
HIGH-MEDIUM RISK							
TWO+ PRIOR PRISON TERMS	38-43	28-32	20-23	18-21	15-17	8-10	7-8
ONE PRIOR PRISON TERM	34-39	25-29	18-21	16-19	13-15	7-9	6-7
NO PRIOR PRISON TERM	30-35	22-26	16-19	14-17	11-13	6-8	5-6
NO PRIOR FELONY CONV.	26-31	19-23	14-17	12-15	9-11	5-7	4-5
LOW-MEDIUM RISK							
TWO+ PRIOR PRISON TERMS	35-40	25-29	18-21	16-19	13-15	7-9	6-7
ONE PRIOR PRISON TERM	31-36	22-26	16-19	14-17	11-13	6-8	5-6
NO PRIOR PRISON TERM	27-32	19-23	14-17	12-15	9-11	5-7	4-5
NO PRIOR FELONY CONV.	23-28	16-20	12-15	10-13	7-9	4-6	3-4
LOW RISK							
TWO+ PRIOR PRISON TERMS	32-37	22-26	16-19	14-17	11-13	6-8	5-6
ONE PRIOR PRISON TERM	28-33	19-23	14-17	12-15	9-11	5-7	4-5
NO PRIOR PRISON TERM	24-29	16-20	12-15	10-13	7-9	4-6	3-4
NO PRIOR FELONY CONV.	20-25	13-17	10-13	8-11	5-7	3-5	2-3
VERY-LOW RISK							
TWO+ PRIOR PRISON TERMS	29-34	19-23	14-17	12-15	9-11	5-7	4-5
ONE PRIOR PRISON TERM	25-30	16-20	12-15	10-13	7-9	4-6	3-4
NO PRIOR PRISON TERM	21-26	13-17	10-13	8-11	5-7	3-5	2-3
NO PRIOR FELONY CONV.	17-22	10-14	8-11	6-9	3-5	2-4	1-2

guidelines been used during 1974-1976.

It should be noted, that in the last two years the rate of parole release, and corresponding term lengths, have changed dramatically. SAC estimates that the rate of parole release has dropped by nearly a third during 1979 and 1980.

Accordingly, since the guidelines reflect previous time served averages, when the parole release rate was higher, it is expected that future use of the guidelines will reduce the prison population to near former levels. Specifically, SAC estimates that use of the guidelines will reduce the population from the current level of around 2550 to around 2200 in approximately two years, assuming of course that commitments do not increase.

APPENDIX I

OFFENDER RISK ASSESSMENT
STATE OF IOWA
DATA ELEMENTS AND CODING PROCEDURES

The Iowa SAC examined a large number of potential predictors of recidivism in the course of the present study, including demographic factors such as age and sex, socio-economic factors such as employment, education, marital status, skill level, dependents, source of support, and living arrangements, current offense factors such as the type, number, and seriousness of convicting offenses and jail time, and a wide variety of criminal history factors. In addition, for ex-prisoners, institutional factors such as type of prison admission,[1] whether a mental health evaluation was conducted, multiple sentences, the type and quantity of prison misconduct, and participation in prison programs such as education, vocational training, and work release, were examined.

The following "pre-release" factors were found to be consistently good predictors of recidivism:

TYPE OF SENTENCING OFFENSE
AGE AT RELEASE
AGE AT FIRST ARREST
PRIOR ARRESTS
JUVENILE PROBATIONS
JUVENILE COMMITMENTS
PRIOR ADULT CONVICTIONS
PRIOR ADULT PROBATIONS
PRIOR ADULT JAIL TERMS
PRIOR ADULT PRISON TERMS
KNOWN ALIASES
HISTORY OF DRUG OR ALCOHOL PROBLEM AND TYPE
MOST RECENT RELEVANT EMPLOYMENT STATUS
SKILL LEVEL
EDUCATION
MARITAL STATUS
PRE-TRIAL STATUS
JAIL TIME

For ex-prisoners, additional significant predictors of recidivism and parole failure included:

CONCURRENT/CONSECUTIVE SENTENCES
TYPE OF PRISON ADMISSION
MENTAL HEALTH EVALUATION CONDUCTED
ESCAPE OR MAJOR MISCONDUCT IN PRISON
LENGTH OF TIME SERVED
TYPE OF PRISON RELEASE (parole or expiration)

[1] By violation of probation or by direct court commitment.

The form of the risk assessment system discussed in this paper is based only on "non-institutional" factors to allow comparisons of results between probationers and parolees, and thus concerns only the first listing above. Elements in the second list are used to make adjustments to the risk assessment results during the period of imprisonment to arrive at a more accurate assessment of the likelihood of parole success or the threat posed by release on parole.

The coding process necessary to arrive at the basic "non-institutional" assessment involves first classifying the offender into one of the following 12 categories based on current age, current offense type, prior arrests, and prior adult commitments:

1) AGE 18
2) AGE 19
3) AGE 20 - LESS THAN TWO PRIOR ARRESTS
4) AGE 20 - TWO OR MORE PRIOR ARRESTS
5) AGE 21-24 - LESS THAN TWO PRIOR ARRESTS - ALL CURRENT OFFENSES AGAINST PROPERTY
6) AGE 21-24 - LESS THAN TWO PRIOR ARRESTS - NOT ALL CURRENT OFFENSES AGAINST PROPERTY
7) AGE 21-24 - TWO OR MORE PRIOR ARRESTS - ALL CURRENT OFFENSES AGAINST PROPERTY
8) AGE 21-24 - TWO OR MORE PRIOR ARRESTS - NOT ALL CURRENT OFFENSES AGAINST PROPERTY
9) AGE 25-29 - ALL CURRENT OFFENSES AGAINST PROPERTY
10) AGE 25-29 - NOT ALL CURRENT OFFENSES AGAINST PROPERTY
11) AGE 30 OR OVER - NO PRIOR ADULT COMMITMENTS
12) AGE 30 OR OVER - ONE OR MORE PRIOR ADULT COMMITMENTS

Once the appropriate category is identified, a risk assessment "packet" is selected to correspond to this category, which is then completed to obtain the final general and violence risk ratings. This involves a sequential process of seven steps, including:

1) A preliminary assessment of general risk based on a configural analysis of relevant predictors for the given category (among the 12).

2) A preliminary assessment of violence risk based on a configural analysis of relevant predictors for the given category.

3) A supplementary assessment that identifies high risk configurations not covered under 1) or 2).

4) An intermediate assessment of general risk obtained by adjusting the results of the preliminary general assessment in view of the results of the preliminary violence and supplementary assessments.[1]

5) An independent assessment of general risk using a former version of the risk assessment system based on a "dimensional-configural" technique dubbed by the SAC as "Synergetic Factor Modulation."

[1] In this case, high violence and high supplementary risk assessments are counted as high general assessments also, depending on age and the specific results.

This assessment is called the "smoothing function" since it smooths out rough edges in the intermediate assessment due in part to small sample sizes in certain configurations.

6) A final assessment of general risk obtained by balancing the intermediate and the independent general assessments.

7) A final assessment of violence risk obtained by interrelating a) the preliminary violence assessment, b) the final general assessment, and c) the nature of current offenses (violence).

Samples of any or all of the risk assessment packets and other reports on risk assessment may be obtained from the Statistical Analysis Center by request:

Statistical Analysis Center
Iowa Office for Planning and Programming
523 East 12th Street
Des Moines, Iowa 50319
Ph: (515) 281-8091

APPENDIX II

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END