19267

PREDICTIVE VALIDITY

of the

HISTORY/RISK ASSESSMENT FOR PAROLEES

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Report # 1

by

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ABSTRACT

The Utah State Board of Pardons, in conjunction with the Courts and the Division of Corrections, has adopted conjoint sentencing and paroling guidelines. The guidelines are designed to recommend uniform dispositions based on the key concepts of seriousness of offense and history/risk. History becomes relevant if the notion is accepted that those offenders who have committed more offenses and have had more exposure to correctional programs are more culpable (deserving of punishment). Risk reflects the notion that those who are most likely to commit crimes should be supervised more restrictively.

The purpose of this study was to determine the predictive validity of the History/Risk Assessment since the scale was rationally developed. Even though only five of 11 variables on the scale were significantly (.05 level) related to successful completion of parole, the score correlated with it at .42. This is higher than the scale used by the Federal Parole Commission. The relatively low amount of variance accourted for (18%) suggests that the instrument should not be used as a decision maker but as a tool to assist decision makers.

INTRODUCTION

With a concern that an equitable and consistent system be applied in determining the length of time that a prisoner serves, the Utah State Division of Corrections in conjunction with the courts and the Board of Pardons, developed sentencing and paroling guidelines. The Guidelines suggest increasing amounts of incarceration as the risk of recidivism or the seriousness of the offense increases. Figure 1, the History/Risk Assessment, is used to assess the risk of recidivism. Figure 2, the Suggested Disposition Matrix, indicates the amount of time an inmate should serve based on his crime and risk assessment.

Insert Figures 1 and 2

The basic question that this research tries to answer is: How valid is the risk assessment that results from using the History/Risk Assessment with parolees? This basic question is broken down into two research questions.

1. Are all the rationally derived factors on the History/ Risk Assessment form significantly related (at the .05 level) to successful completion of parole?

2. Does the total score on the History/Risk Assessment form differentiate successful from unsuccessful parolees beyond the level that would be expected by chance (.05 level)?

LITERATURE REVIEW SUMMARY

Warner Study

Many studies have been conducted attempting to predict success or failure of parolees. Parole prediction studies date back to 1923. Warner collected data from the files of 680 prisoners for the Massachusetts State Reformatory. He compared success and violation of parole with the criteria used by the Board of Parole and concluded that there was little

FIGURE 1

Name: _____ Crime: _____
Offender is responsible to provide information or collateral contacts to verify scoring.

Cooperative ☐   Uncooperative ☐   Degree: C 1 2 3 A B
                                                            50

Circle V if verified   **HISTORY/RISK ASSESSMENT**
by collateral source.   (To be initiated only at time of conviction for new offense)

v	Age at Date of Conviction	Under 21 21 - 30 31 - 40 Over 40	0 1 2 3

51 52

| v | Age at First Arrest
(first offender incited non status
arrest as either an adult or juvenile) | Under 14
14 - 21
22 - 25
Over 25 | 0
1
2
3 |

53 54

| v | Prior Juvenile Record | Court Institutional Referral
More than four referrals
1 - 4 referrals
No referrals | 0
1
2
3 |

55 56

| v | Prior Adult Arrests
(does not include current one) | More than 15
9 - 15
2 - 8
1
None | 0
1
2
3
4 |

57 58

| v | Current Charges Pending or Dismissed
as Plea Bargain | More than 1
Otherwise | 0
1 |

59 60

| v | Prior Adult Convictions
(excludes traffic) | More than 4
1 - 4
None | 0
1
2 |

61 62

| v | Current Conviction is
for high recidivism crime | Agg. Robbery, Agg. Burglary
Robbery, Forgery, Burglary, Fraud,
Felony Theft, Auto-theft, Forcible Rape
Otherwise | 0
1
2 | 63 |

| v | Correctional Supervision
History | Currently Supervised
Prior Revocation
Prior Supervision
No Prior Supervision | 0
1
2
3 | 64 |

| v | Supervision Risk | Escaped from Confinement
Absconded from Residential Prog.
Absconded from Supervision
None of the above | 0
1
2
3 | 65 |

| v | Preconfinement Work/Education
Record (Recent) | Poor
Sporadic
Good | 0
1
2 | 66 |

| v | Education | Less than H.S. Grad
H.S. Grad. or G.E.D.
Post High School Education | 0
1
2 |

GED
67 68

| v | Substance Abuse
(alcohol & drug) | Abuser (has been arrested for
a Substance related crime)
User
Non-user | 0
1
2 | 69 |

Poor	00 - 12
Fair	13 - 15
Moderate	16 - 18
Good	19 - 24
Excellent	25 - 30

Total

70 71

Judge: _____   Disposition: Prison ☐ 72
                                                        Jail ☐ 73
Exit type [ ][ ]   Probation ☐ 74
          78 79   CCC ☐ 75
                                                        Fine/Rest. ☐ 76
                                                        Other ☐ 77   Specify:

SUGGESTED DISPOSITION MATRIX

(Based Only on History/Risk Assessment and Seriousness of Offense)

FELONIES   MISDEMEANORS

	Capital	FIRST DEGREE		SECOND DEGREE		THIRD DEGREE	Class A	Class B
		Serious	Moderate	Serious	Moderate			
POOR	Life	96 - 108 mos.	60 - 72 mos.	36 - 48 mos.	24 - 36 mos.	18 - 24 mos.	8 - 12 mos.	4 - 6 mos.
FAIR	25 yrs.	84 - 96 mos.	48 - 60 mos.	24 - 36 mos.			4 - 8 mos.	2 - 4 mos.
MODERATE	20 yrs.	60 - 72 mos.	36 - 48 mos.		12 - 18 mos.	9 - 15 mos.	2 - 4 mos.	1 - 2 mos.
GOOD	15 yrs	48 - 60 mos.		12 - 18 mos.	8 - 12 mos.	6 - 9 mos.	Days	Days
EXCELLENT	15 yrs.		24 - 30 mos.	8 - 12 mos.	4 - 8 mos.	1 - 6 mos.	Days	Only Fine or Restitution

INCARCERATION

PROBATION

(left axis) HISTORY RISK ASSESSMENT

Time in each square is recommended amount of time if incarceration is judged appropriate.

First Degree Felony:
Serious: Murder II
Moderate: All Others

Second Degree Felony:
Serious: Agg. Assault by Prisoner, Mayhem, Manslaughter, Rape, Forcible Sodomy, Agg. Arson, Causing Catastrophe, Burglary, Robbery, Controlled Substance (15 years), etc.
Moderate: Theft, Forgery, Bad Checks, Fraud/Credit Card, Unauthorized Abortion, Escape, Aiding Escape, Perjury, Sabotage, Infernal Machine, Gambling Fraud, Confidence Game, Agg. Exploiting of Prostitution, Controlled Substance (10 years), etc.

FIGURE 2

relation between the Board's criteria and the behavior of the
men after release. He was the first investigator to note that
the success rate of those committed for sexual crime was
higher than those committed for Larceny and Breaking and
Entering. He suggested generally that those, "guilty of
crimes that shock society are less like to violate parole."
In the same year (1923), Hart maintained that 15 of Warner's
factors plus 20 others could be used to improve prediction.
He suggested that all of these factors be combined into a
single prognostic score.

Burgess Study

Burgess (1928) studied the records for 3,000 men paroled
at least two and one-half years previously from the Illinois
State Penitentiary. From the study of 21 items, each divided
into several categories, he found differences in rates and
violation. An arbitrary score of 1 point was assigned to
each factor, and a favorable point was given to each man
whose rate was below the institutional base rate. This re-
sulted in a prediction score related to violation rates.

Glueck Study

Sheldon and Eleanor Glueck (1930-1950) used case materials
from the Concord Reformatory in Massachusetts and effectively
investigated the life history of 510 prisoners whose sentences
expired in 1921 and 1922. They interviewed exprisoners and
relatives in order to get an accurate description of parole
adjustment.

Vold Study

Vold (1931) studied the records of 1,192 men who had
been discharged from the Minnesota Prison in 1922 and 1927.
He combined the Burgess-type technique with the Glueck
technique, using only what he thought to be the most signi-
ficant factors and weighing them according to the maximum

percentage differences between any subclass with a particular factor and the recidivism expectancy for the entire group. Vold found little difference in the results and dropped the Glueck procedures considering them more laborious.

Monachesi Study

Monachesi (1932) studied 1,515 adult and youth cases handled earlier by the Minnesota Pribation Office. He found that the Burgess and Glueck procedures gave about the same result.

U.S. Department of Justice Study

The United States Department of Justice (1931) made a major study of the case histories of 100,000 felons considering some factors associated with parole selection and outcome. A second analysis of 2,593 case histories of men from Federal Institution from 1930 to 1935 was an attempt to improve the selection of people eligible for parole by the United States Parole Board. Eighty-two informational items were selected and divided into five groups: parental, social, criminal, institutional, and post institutional history. It was concluded that while 39 of the items studied had some predictive power, the resulting tables could not produce substantial improvement in Federal Parole practice.

Ohlin Study

Ohlin (1951) constructed parole experience tables for use in Illinois based on the study of 941 cases. A violation rate was obtained for each subclassification defined by the data items used. Each man was given one favorable point for each subclassification defined by the data items used. Each man was given one favorable point for each favorable subclass in which he fell and one unfavorable for each unfavorable subclass. Taking the difference gave the final score. (This is essentially the same as the Burgess method.)

Caldwell (1951) reported a study of 1,862 Federal Probationers and Reiss studied 736 probationers in Illinois testing the validity of a test developed using followup samples of 374 persons.

Dunham Study

From 1931 similar studies were being conducted by European researchers. In all of these studies various point systems were applied. Meanwhile, Dunham (1954) summarized a comparison of recidivists and nonrecidivists at San Quentin. He found five significant factors which resulted in a scale for differentiating between recidivists and nonrecidivists.

Glaser Study

Also, Glaser (1954) conducted a study involving 4,448 Illinois inmates paroled between 1940 and 1949. He considered the parole prediction factors to be: background, schooling and employment, criminal record, and personal summarization classification.

Other Studies

Until the mid-1950's, two basic methods were mainly employed for the combination of predictive attributes into a single scoring scheme. These were the techniques of Burgess, using many predicted characteristics without weighting and the techniques of the Gluecks, employing only a small number of characteristics, but using a weighting system. In 1954, Kirby used multiple correlation in his techniques for the combination of variables, elimination of overlapping items and differential weighting. (Independently in England, Mannheim used the same method.)

A rather comprehensive study by Simon (1971) compared the predictive power of a number of mathematical methods for combining predictive items. His study indicated that the method commonly known at the Burgess method, using a

number of equally weighted dichotamous items, tends to predict as well on validation samples as newer and more mathematically sophisticated methods.

United States Parole Commission

The United States Parole Commission (Gottfredson, et. al., 1978) using what they call a "salient factor score" to assess an applicant's parole prognosis. This score involves the total of a number of weighted subscores for various salient factors. The following salient factors are considered: (1) prior convictions; (2) prior incarcerations; (3) age at first commitment; (4) whether or not the offense involves an automobile; (5) prior parole revocations; (6) drug history; (7) number of grades of school completed; (8) employment; and (9) living arrangements.

Payne Study

Reed Payne (1973) used a sample of 89 parole violators in the State of Utah to study what factors differentiate between parole success and parole violators. It was assumed that these factors could be used to predict which parolees are most likely to violate their parole. A method of weighting these factors was used giving a value of one to the factors which were significant at the .01 level, and a value of three to those significant at the .001 level. Significant at the .001 level were age at first arrest and number of sentences. Significant at the .01 level was grade of school completed. Significant at the .05 level were: number of "rap sheet" entries, number of first year write-ups in prison, and height.

METHODOLOGY

Utah State Statutes specify that the length of parole in

Utah should be three years. The Utah State Board of Pardons, by policy, will consider anyone for termination of parole after two years. Therefore, it was determined that the most recent sample possible should be used for validation.

The sample was selected by going to the discharge records of the Utah State Prison and selecting the parolees discharged to parole from January 1, 1976, through June, 1979. The files of all the people paroled during that period of time, with the exception of the files that were not available, were reviewed and a score derived for each on the History/Risk Assessment. (Twenty-three files were not available due to a prior agency policy, which existed for a short period of time, to destroy files of parolees who had completed parole.) The History/Risk Assessment scores ranged from a score of 4 to a score of 25. Presumably, the higher the score the lower the risk of failure on parole.

The sample population consisted of 70 parolees. The types of parole success or failure were broken down into the following codes:

0 = Successfully Completed Parole	28 cases
1 = Still on Parole	9 cases
2 = Absconder	3 cases
3 = Technical Violation	9 cases
4 = Major Violation of the Law	28 cases

This is a graduated scale with the lowest number being the highest degree of success. (The process of going through the records to compile a History/Risk score took approximately 30-40 minutes per case.)

To answer the research questions, the following tests were used on the sample:

Question 1: Are all of the rationally derived factors on the History/Risk Assessment form significantly related (.05 level) to successful completion of parole?

Test: Correlation Coefficient

Question 2: Does the total score on the History/Risk Assessment form differentiate successful

from unsuccessful parolees beyond the level
that would be expected by chance (.05 level?)

Test: t test

RESULTS

Research Question 1:

Is each rationally derived variable of the History/Risk
Assessment significantly related (.05 level) to successful
completion of parole?

Answer:

Each variable is addressed as a subquestion of research
question 1 and listed in Table 1.

Insert Table 1

Five of the 11 variables met the predetermined criterion
(.05 level) necessary to answer the question in the affirma-
tive. Three other variables were in the predicted direction,
but the relationship was not significant. The three variables
(Prior Adult Arrests, Substance Abuse, and Education) were
opposite the predicted direction.

Research Question 2:

Does the total score on the History/Risk Assessment dif-
ferentiate successful from unsuccessful parolees?

Answer:

The History/Risk Assessment does differentiate successful
from unsuccessful parolees (See Table 2.)

Insert Table 2

Table 2 provides a variety of indices of predictive vali-
dity to aid in determining how the History/Risk Assessment
compares with other similar instruments. Perhaps most worthy

Table 1

ANSWERS TO RESEARCH QUESTION 1 WITH ASSOCIATED CORRELATION COEFFICIENTS

Variables: Research Question 1	PAROLE	
	QUESTION ANSWER	/CORRELATION
1. Is 'Age at Date of Conviction' positively related to success?	NO	.069
2. Is "Age at First Arrest' positively related to success?	YES	.252*
3. Is 'Prior Juvenile Record' negatively related to success?	YES	-.271**
4. Is 'Prior Adult Arrests' negatively related to success?	NO	.077
5. Is 'Current Charges Pending or Dismissed as Plea Bargain' negatively related to success?	NO	-.131
6. Is 'Prior Adult Convictions' negatively related to success?	NO	-.078
7. Is 'Current Conviction High Recidivism Crime' positively related to success?	not available	
8. Is 'Correctional Supervision History' positively related to success?	YES	.208*
9. Is 'Supervision Risk' positively related to success?	YES	.324**
10. Is 'Preconfinement Work/Education Record' positively related to success?	YES	.345**
11. Is 'Education' positively related to success?	NO	-.044
12. Is 'Substance Abuse' positively related to success?	NO	-.081
13. Is 'Total Score' positively related to success?	YES	.423**

*$p < .05$
**$p < .01$

TABLE 2

PREDICTIVE VALIDITY OF THE HISTORY/RISH ASSESSMENT

History/Risk Score		Success	Failure	Cumulative by Category	Percent Successful
4		0	2		
5					
6		0	2		
7		0	1		
8		4	11		
9	POOR	1	3		
10		3	4		
11		3	4		
12		0	1		
				28 F 11 S	28%
13		6	2		
14	FAIR	1	3		
15		5	2		
				7 F 12 S	63%
16		0	3		
17	MODERATE	2	0		
18					
				3 F 2 S	40%
19		2	0		
20		1	1		
21	GOOD				
22					
23					
24		0	1		
				2 F 4 S	67%

$$
\begin{array}{lll}
\text{Mean} &= 13.67 & 10.70 \\
\text{SD} &= 4.32 & 4.14 \\
t &= 2.90 \\
df &= 61 \\
PL &= .005 \\
r^2 &= .42 \\
4^2 &= .18 \\
MCR^* &= .38
\end{array}
$$

*Mean Cost Ratio (Dudley, et. al., 1953)

of note is the salient factor score used by the Federal Parole
Commission ($r = .28$, MCR $= .32$). The History/Risk Assessment
has more predictive power than the Salient Factor score.

DISCUSSION

Prediction of parole success is a difficult task. The
History/Risk Assessment is one of the better instruments ever
devised for this purpose. Nevertheless, irregardless of where
the cutoff point might be drawn, there would be numerous false
predictions. As a result, it appears unwise to use the History/
Risk Assessment as a decision-making tool. It does, however,
appear to have considerable value as a tool to assist decision
makers.

The History/Risk Assessment clearly can segregate offenders
into groups that have quite different probabilities of success-
fully completing parole supervision. Such an objective appraisal
should be very valuable to a paroling authority which typically
has made critical decisions with considerably less valid data.
Even with the History/Risk Assessment and an objective way of
assessing the seriousness of the offense, such a small amount
of variance is accounted for that serious consideration should
be given to aggravating or mitigating circumstances in making
disposition on any given case.

Not only does the History/Risk Assessment address risk, it
also addresses culpability. This is the notion that those who
have previously failed correctional supervision or those who
have committed many crimes are more responsible for their acts
and more deserving of punishment. Many of the variables
included on the scale are consistent with such an approach.

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