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THE RISK OF FAILURE DURING THE EARLY PAROLE PERIOD: A METHODOLOGICAL NOTE

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Correctional administrators have long placed a heavy emphasis on the critical importance of the first few months on parole. They have used the claim that the risk of failure is at its highest during the first few months following release to justify halfway houses, preparole programs and intensive supervision by parole agents during the early parole period. The following statement is representative of that point of view:

It had been known for a long time that the highest percentage of postprison failures occurs within 6 months after release, with the greater number taking place during the first 60 days. But it was not until the early forties that penal and correctional institutions realized that something must be done to help inmates bridge the gap between the prison community and life in free society....[1]

Statistical evidence purporting to support this claim has been gathered and reported from many jurisdictions. Lunden in discussing his data on recidivism among boys and girls released from training schools in Iowa stated:

The data reveals that the first three months constitutes the crucial period for parole violation. If the juvenile does break parole the boy or girl is most apt to do so within the first three months after the date of parole from the institution.[2]

Another study, using statistical data on federal parole violators during the 1949 fiscal year, reported that 30 percent of the violations occurred within less than three months after release, 57 percent within six months and 82 percent within a year.[3] The prestigious President's Commission on Law Enforcement and the Administration of Justice reported, using information from the State of Washington prison system, that "... violations on parole tend to occur relatively soon after release from an institution, nearly half of them within the first 6 months after offenders are released, and over 60 percent within the first year." [4] Numerous other studies using the same method could be given.

This paper will focus on the method of assessing failure rates which was used in these studies and compare the question it answers and the results it achieves with the questions answered and the results realized by two alternative methods.

The method used in each of the studies cited above answers the question: "Of all those who violated their parole during a given period, how long had they been on parole at the time of their failure?" While this is a legitimate question, is it the proper question to be asked? Should not the question be: "What are the chances of failure on parole during the early period of parole compared to later periods?" This is not the question answered by the studies cited above. In each they considered only those persons who failed. The question of risk, however, must be answered in terms of the entire population who risk parole failure. This includes those who do not fail as well as those who fail. Thus, these studies do not provide risk rates and cannot be used to answer the question of risk.

The proper statistical method for answering the question of risk during a specified period of time following release to parole is simple. In question form it is: "Of all those at risk during the specified period of time following release to parole, what proportion violate their parole during that period?"

SOME FICTIONAL EXAMPLES

In order to demonstrate empirically that different methods of computing failure rates yield different results, a fictional parole system was created. Five hundred men were released to parole per month in this fictional system. In the first statis-

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[1] Baker, *Preparing Prisoners for Their Return to the Community*, 30 FED. PROBATION 43 (1966).
[2] LUNDEN, STATISTICS ON DELINQUENTS AND DELINQUENCY 267 (1964).
[3] Killinger, *The Federal Government's Parole System*, 14 FED. PROBATION 61 (1950).
[4] PRESIDENT'S COMMISSION ON LAW ENFORCEMENT AND ADMINISTRATION OF JUSTICE, THE CHALLENGE OF CRIME IN A FREE SOCIETY 68 (1967).

TABLE 1

COMPARISON OF THREE METHODS OF COMPUTING "FAILURE RATES" IN A FICTIONAL PAROLE SYSTEM HAVING A CONSTANT MONTHLY FAILURE RATE

Months to Failure	Survivor Cohort Base Follow-up Method*		Ex Post Facto Failure Base Method**		Total Release Cohort Base Follow-up Method*	
	No. of Failures	Failure Rate	No. of Failures	Failure Rate	No. of Failures	Failure Rate
1–3	29.4	5.9	352.8	11.4	29.4	5.9
4–6	27.6	5.9	331.2	10.7	27.6	5.5
7–9	26.1	5.9	313.2	10.1	26.1	5.2
10–12	24.5	5.9	294.0	9.5	24.5	4.9
13–15	23.0	5.9	276.0	8.9	23.0	4.6
16–18	21.7	5.9	260.4	8.4	21.7	4.3
19–21	20.5	5.9	246.0	7.9	20.5	4.1
22–24	19.2	5.9	230.4	7.4	19.2	3.8
25–27	18.1	5.9	217.2	7.0	18.1	3.6
28–30	17.1	5.9	205.2	6.6	17.1	3.4
31–33	16.0	5.9	192.0	6.2	16.0	3.2
34–36	15.0	5.9	180.0	5.8	15.0	3.0

* Number of failures and failure rates based on one month of releases in the fictional system; increasing the number of months of releases would have no effect on the analysis. In the survivor cohort method, the Failure Rate is a quarterly rate based on a monthly survivor rate of 2.0 percent.

** Number of failures based on all returns during a system year after the system stabilized.

tical experiment, the failures were computed at a constant rate of 2.0 percent per month based on the survivors, *i.e.*, 2.0 percent of the 500 releases each month failed during the first month following release giving 10 failures, 2.0 percent of the surviving 490 releases failed during the second month giving 9.8 failures, 2.0 percent of the 480.2 survivors failed during the third month giving 9.6 failures, and so forth[5] for thirty-six months at which time the rate was arbitrarily reduced to zero.[6] This method might be referred to as the *survivor cohort base follow-up method.*

In order to produce the type of data which has been cited in the prior literature, this procedure was carried out for four years (48 monthly release

[5] This method of computing period-specific failure rates has also been used in MANNHEIM & WILKINS, PREDICTION METHODS IN RELATION TO BORSTAL TRAINING 127 (1955).

[6] The rate was reduced to zero in order to simplify the computations. This is only a slight departure from "reality" in as much as the rate of failure, no matter how it is computed, falls to a very low level after three years on parole.

cohorts) and all those who failed parole during a given system year were tabulated to produce a distribution of time on parole among the failures. These frequencies were then converted to proportions of the total number of failures during the given system year. This method might be referred to as the *ex post facto failure base method.*

In order to produce yet another set of rates based on another method, the number of failures per month produced by the fixed rate of 2.0 percent per month among the survivors was expressed as a proportion of the total number of men released to parole in each release-month cohort which was 500. This method might be referred to as the *total release cohort base follow-up method.*

The rates resulting from these three methods of computing failure rates are shown in Table 1.

From Table 1 it can be seen that a constant failure rate (of 2.0 percent per month) using the *survivor cohort base follow-up method* produces "failure rates" in the other two methods which seem to show that the rate of failure decreases over time. Thus what is in actuality a constant rate of failure over time would, using the traditional method, give the appearance of a higher risk during the early parole period.

In order to demonstrate the obverse situation, namely that increasing rates of failure over time might not be detected using the traditional failure base method, Table 2 was constructed using a constant number of failures (7.172) per month for each month following release to parole (up to four years). This statistical experiment produces an increasing failure rate over time in the survivor base method but a flat rate in the other two methods. Again the results of the different methods are different.

Tables 1 and 2 demonstrate that different questions are being asked by the three methods in as much as they yield different answers. Thus, the choice of the proper method depends upon a precise statement of the question to be answered. Some of the questions which might be answered using these methods are:

1. At what period of time following release to parole is the risk of failure at its highest or lowest point? The proper method for answering this question is the survivor method.

2. At what point in time following release to parole does the risk of failure stabilize, if at all? Again the survivor method is the appropriate one.

TABLE 2

COMPARISON OF THREE METHODS OF COMPUTING "FAILURE RATES" IN A FICTIONAL PAROLE SYSTEM HAVING A
CONSTANT NUMBER OF FAILURES PER MONTH

Months to Failure	Survivor Cohort Base Follow-up Method*		Failure Base Method**		Total Release Cohort Base Follow-up Method*	
	No. of Failures	Failure Rate	No. of Failures	Failure Rate	No. of Failures	Failure Rate
1–3	21.516	4.30	258.192	8.33	21.516	4.30
4–6	21.516	4.50	258.192	8.33	21.516	4.30
7–9	21.516	4.71	258.192	8.33	21.516	4.30
10–12	21.516	4.94	258.192	8.33	21.516	4.30
13–15	21.516	5.20	258.192	8.33	21.516	4.30
16–18	21.516	5.48	258.192	8.33	21.516	4.30
19–21	21.516	5.80	258.192	8.33	21.516	4.30
22–24	21.516	6.16	258.192	8.33	21.516	4.30
25–27	21.516	6.56	258.192	8.33	21.516	4.30
28–30	21.516	7.02	258.192	8.33	21.516	4.30
31–33	21.516	7.55	258.192	8.33	21.516	4.30
34–36	21.516	8.17	258.192	8.33	21.516	4.30

* Number of failures and failure rates based on one month of releases in the fictional system; increasing the number of months of releases would have no effect on the analysis. In the survivor cohort method, the failure rate is based upon a constant number of failures expressed to the base of the number of people at risk at the beginning of the quarter.

** Number of failures based on all returns during a system year after the system stabilized.

3. At what point in time following release to parole can the most failures or the highest proportion of failures be expected? The proper technique here is the total cohort base follow-up method.

4. Among those who fail parole during a given period of time such as a calendar year, how many can be expected to have been on parole for any specified lentgh of time? The failure base method should be used to answer this question.

5. Do different kinds of parolees survive parole for different lengths of time? The total cohort base method is the method of choice here.

6. Is the risk of failure over time different for different kinds of parolees? For instance, is the risk level fairly stable over time for those convicted of homicide as compared to those convicted of narocitics crimes? The survivor cohort method is appropriate here.

Before leaving the discussion of the several methods, some further comments should be made on the failure base method. This method has several characteristics which would seem to limit its usefulness. First, as we have seen, it does not provide a measure of risk. Second, it tells us nothing about those who do not fail. Third, the findings are very dependent upon changes in releasing practices. For instance, if the failure rate using the total release cohort base method was constant over time and if this constant rate was the same for successive release cohorts and if the number of releases per month increased steadily over successive cohorts, then the failure rate using the failure base method would yield a relatively high proportion of failures who had been on parole for a relatively short period of time. Thus the failure base method does not lead to the same results as the total release cohort base method. The rates produced by this method are influenced by changes in the number of people being paroled while the other two methods are not.

AN ACTUAL EXAMPLE USING
NARCOTIC ADDICTS

The purpose of this part of the paper is to apply the procedures discussed in the fictional examples to an actual parole system. Two sets of data will be used to make this demonstration. Both sets of data are from the Civil Addict Program operated by the California Department of Corrections. It is essentially a correctional program for civilly committed

narcotic addicts and has been described elsewhere.[7] While any narcotic addict may commit himself to the program, most of the addicts in the program were committed to it following a felony or misdemeanor conviction, usually for drug use or sales. The program consists of an institutional phase followed by release to the community under supervision, *i.e.*, parole, called outpatient status. Those who violate their conditions of release may be returned to the institution; the majority of those who are returned violated their conditions of release by the use of narcotics.

During the year 1966, 1,270 men were returned to the institution from the community. Table 3 gives a distribution of time spent in the community by these failures. It can be seen that most of these returnees (violators) had been in the community for only a short period of time. But, as argued above, this failure base method does not answer the question of risk as it does not include those who did not violate the conditions of their release and were not returned.

In order to answer the question of risk we must use the survivor cohort base method, *i.e.*, we must know the total number at risk and the number of those at risk who violated their release status in each successive time period. To obtain this information, all men released to outpatient status for the first time from June 1962 through June 1964 were used as the study sample, or population.[8] Each releasee was studied for a period of three years. For each period following release the number of men who violated their conditions of release during that period was expressed as a percentage of the total number of those at risk at the beginning of the period. Those at risk were defined as all those in the community and under the supervision of the Department who were outpatients at the beginning of that period. All those who had their outpatient status suspended during prior periods were removed from the at risk population. For example, during their first three months on outpatient status, 227 of the 919 men at risk were returned or suspended giving a violation rate of 24.7

[7] Kramer, Bass, & Berecochea, *Civil Commitment for Addicts: The California Program*, 125 AM. J. PSYCHIATRY 128–36 (1968).
[8] This data is taken from that used in Bass, *Narcotic Addict Outpatient Program*, RESEARCH REP. No. 36, CALIF. DEPT. CORRECTIONS (1969). The data used in this report excludes fifteen people who died while on outpatient status or who were discharged from outpatient status as a result of technical errors in their commitment process. It also excludes one case which was lost in the process of analysis.

TABLE 3

TIME FROM LAST RELEASE TO OUTPATIENT STATUS TO RETURN TO THE INSTITUTION FOR MALES RETURNED AS VIOLATORS IN 1966: CALIFORNIA CIVIL ADDICT PROGRAM

Months in Outpatient Status	Number Returned	Percent Returned	Cumulative Percent Returned
1–3	205	16.1	16.1
4–6	384	30.2	46.3
7–9	244	19.2	65.5
10–12	119	9.4	74.9
13–15	93	7.3	82.2
16–18	66	5.2	87.4
19–21	57	4.5	91.9
22–24	32	2.5	94.4
25–27	27	2.1	96.5
28–30	13	1.0	97.5
31–33	10	0.8	98.3
34–36	10	0.8	99.1
37 or more	10	0.8	99.9
Totals	1270	99.9	

TABLE 4

PROBABILITY OF FAILURE DURING GIVEN TIME PERIODS USING THE TOTAL COHORT METHOD AND THE SURVIVOR COHORT METHOD FOR 919 SUBJECTS RELEASED TO OUTPATIENT STATUS IN THE CALIFORNIA CIVIL ADDICT COMMITMENT PROGRAM—JUNE 1962–JUNE 1964.

Months on Outpatient Status	Number Failures During Period	Failures as a Pct. of Number Released	Number Available Beginning of Period	Probability of Failure During Period
1–3	227	24.7	919	.247
4–6	187	20.3	692	.270
7–9	114	12.4	505	.226
10–12	79	8.6	391	.202
13–15	47	5.1	312	.151
16–18	23	2.5	265	.087
19–21	17	1.8	242	.070
22–24	20	2.2	225	.089
25–27	16	1.7	205	.078
28–30	11	1.2	189	.058
31–33	14	1.5	178	.079
34–36	5	0.5	164	.031

percent. During the second period (months four through six) 187 of the 692 men at risk were returned or suspended giving a violation rate of 27.0 percent. The same procedure was followed for each of the 12 follow-up periods and the results of this analysis are presented in Table 4.