On the basis of initial tabulations by Mr. McKenzie's risk study group we are able now to identify some groups of parolees with unusually high potential for violence and other groups with unusually low potential. While this study is still in progress and we believe that these risk predictions will be expanded and improved over the next several months, these initial findings have been validated and can be viewed as perfectly sound. Therefore, I wanted to communicate them to you for any use which may be appropriate.

How These Tables Were Derived

The risk study involved the careful coding of a large number of variables on just over 2,000 persons paroled in 1971. This is approximately half of the persons paroled in that year. The complete analysis of this data base will be a somewhat lengthy and sophisticated process. Therefore, in order to obtain some initial outputs, tabulations and combinations of variables which seemed most strongly related to our principle concern — violent behavior on parole — were analyzed. This was done as follows: Half of the sample was set aside for later test of any findings which might occur. This is called a "validation group". Using the other half, various combinations of variables were tabulated against behavior on parole to determine which combinations seemed to best predict violent behavior. Our main objective was to identify any groups with unusually high potential for violence. However, we also looked for groups with unusually low violence potential. Both types were found.

While the number of possible combinations which might predict violence are almost infinite, our initial selection turned up six variables which, in various combinations of two or three, identify the groups covered in this memo. Other variables and combinations were examined but not found to be as effective in predicting, though almost certainly other combinations will be discovered in the future analysis.

After the combinations of variables which seemed to be the best predictors were identified and the population classified according to risk on these variables, the final stage was to determine whether these combinations would in fact predict...
(retrospectively) the violent behavior of the validation group which had been held aside for that testing purpose. This test has been made. In each case the violence predictions (risk probabilities) proved to be valid. In some cases the predictors were more effective in terms of discriminating high and low risk than they had been on the sample where they were constructed. In such cases the risk probabilities, or violence percentages, quoted here were the percentages which applied to both samples taken together. This provides a more conservative estimate of predictive ability. In other words the percentages of violent behavior for the high risk groups shown in this memo proved to be at least as high when validated. For the low risk groups, the validation rates were at least as low as shown in this memo.

The reason these predictors held up so well in validation is that the samples are unusually large. Even after removing cases paroled outstate (because there was not enough data on juvenile history or parole behavior on such cases) the group on which the tables were constructed numbered nearly 1,000 parolees as did the validation group. This size largely eliminates spurious or random correlations between variables. As a final comment, these tables apply only to male prisoners, since there were not enough female parolees to include in the study.

The findings discussed here are shown in Table I and will be discussed separately for high and low risk groups:

**Explanation of Table**

Each row of the table represents a different parole outcome as labeled on the left side. This outcome represents actual behavior so far as this could be determined from each field agent file. This gives a higher percentage of illicit behavior than legal disposition would. For example if a parolee is charged with a crime on parole which would be a violent felony, but is convicted of a property felony or misdemeanor, or is returned for a technical violation, he is nevertheless coded here as committing a violent felony. We tried to come as close to actual behavior as possible. The outcomes are probably self-explanatory except that "technical or misdemeanor" means that the individual committed either a violation of a parole rule or a misdemeanor; these two categories were lumped together for presentation here.

The tables were developed with respect to violent felony only. We were looking at discriminations on this category and ignoring the others. This is true for both high and low risk groups. The other outcomes are shown for information purposes.

The column second from left on both pages of the table indicates the base rate for the total sample of 2,033 parolees. The base rate or "average probability" of violent crime on parole for this group is 10.5%. That is to say just over 10 of every 100 parolees was detected in an offense which would constitute a violent felony while on parole.

<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>Non Illegal</th>
<th>Acts</th>
<th>No Illegal</th>
<th>Non Violent Felony</th>
<th>Violent Felony</th>
<th>Technical or Misdemeanor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>10%</td>
<td>2%</td>
<td>2%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>High Risk Group</td>
<td>20%</td>
<td>3%</td>
<td>3%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Low Risk Group</td>
<td>10%</td>
<td>3%</td>
<td>3%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>
### High Risk Groups

Groups A through E are groups identified as having unusually high risk of violence on parole. All of Groups B through E are included in Group A, and there are various amounts of overlap among Groups B through E. So the percentages of our total population which each group comprises (shown on the bottom row) cannot be added together.

The variables which identify each group are shown at the top of each column. As with parole outcome, the attempt was to code actual behavior rather than the legal category under which the person may have been convicted. The terms "assaultive crime" and "robbery" refer to the offense for which the person is serving and from which he is paroled. If the offense was an armed or unarmed robbery he is coded as a robber and as serving for an assaultive offense, even though by plea bargaining he may be convicted only of larceny from a person or some other nonassaultive crime.

The term "single" refers to marital status at the time he committed the crime. "Single" means that the parolee had never been married at the time of the crime. If he were widowed or divorced he would not be coded as single.

The term "juvenile commitment" refers to incarceration in a juvenile facility or a term of juvenile probation, but does not include status offenders. The attempt is to get at criminal behavior by juveniles.

"Arrest by age 14" means that the individual had an arrest prior to his 15th birthday.

"Raised by mother" means that the mother alone was in primary charge of the individual prior to age 20.

"Spent at least half of sentence in involuntary segregation" means that of the time spent in prison on this sentence at least half was in segregation units, excluding segregation at the resident's own request.

It may be concluded, on the basis of these tables, that at least six or seven percent of our population can be classified as having three and one half times or more the potential for violence of the average parolee. These are found in Groups C, D, and E.

### Low Risk Groups

Groups F, G, and H on page 4 identify low risk groups. The same definitions as for the high risk groups. "Not single" means

---

<table>
<thead>
<tr>
<th>Group</th>
<th>Base Rate</th>
<th>No Assaultive Crime and No Juvenile Commitment</th>
<th>Arrest After Age 19</th>
<th>Not Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>10%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>G</td>
<td>10%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>H</td>
<td>10%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

---

Table I (cont.)
only that the individual had been married at some time prior to the crime for which he is serving.

"Arrest after age 19" means that the individual was at least 20 years of age when first arrested.

It should be noted that Group G is entirely included in Group F and Group H is entirely included in Group C.

These groups comprise a fairly large proportion of the total population. Nearly a third of our population has been identified as having less than half the risk of violence of the population as a whole. And nearly a fifth of the population has been identified which has less than one tenth the violence potential of the population as a whole. These groups are also at least slightly better with respect to nonviolent felonies. Group G (and Group H included within it) has a notably better performance with respect to "no illegal acts" as well as a very low potential for violence.

As a concluding comment, this study may ultimately prove to be as valuable in disproving concepts we had held to be true, as in finding new facts. For example, neither the total number of felonies in an individual's record, nor total number of prison commitments, proved to be predictive of violent behavior for the group as a whole. It may be that when other variables are taken into account, such as age, these two factors will have some predictive power, but by themselves they are not good indicators of risk at all. This raises some apparent questions concerning the effectiveness of habitual offender acts which are based simply on the number of past felonies.

We will provide further output from the study as it becomes available. Since the identification of subgroups in the population will require careful analysis, I would not expect further output for the next few months.

WLK:mv
<table>
<thead>
<tr>
<th>TO:</th>
<th>NAME</th>
<th>TO:</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Linda Sharpe</td>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>6.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>7.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>8.</td>
<td></td>
</tr>
</tbody>
</table>

FOR ACTION AS INDICATED

- [ ] SIGNATURE
- [ ] APPROVAL
- [ ] ACTION
- [ ] COMMENTS
- [ ] INFORMATION
- [ ] REPLY-MY SIGNATURE
- [ ] REPLY-COPY TO ME
- [ ] PLEASE SUMMARIZE
- [ ] PLEASE INVESTIGATE
- [ ] PLEASE PHONE ME
- [ ] NOTE AND FORWARD
- [ ] NOTE AND FILE
- [ ] NOTE AND RETURN
- [ ] FORWARDED PER REQUEST
- [ ] PLEASE SEE ME

REMARKS: Your phone call of this p.m.

We'll add your name to our mailing list for the completed study — by the way, it is several months until completion.

FROM: Mary Volakakis
Secretary to Mr. Kime

DATE: 7-22-76
END