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DESIGN CONSIDERATIONS IN EVALUATION \*

Statement of Purpose: In the pretrial diversion field, as in other areas of criminal justice evaluation, there is not enough reliable and valid information on the impact of programs on client behavior. This paper suggests that one way to obtain such information is to empirically measure program impact on client outcomes (behavior). One example of a widely used outcome is recidivism. However, reporting the recidivism rates for program clients only is not acceptable evidence of program impact. Diversion clients can be low-risk defendants who would have low recidivism rates even if they were not in a diversion program. Therefore, the recidivism rates of program clients must be compared to rates for nondiversion clients with similar low-risk characteristics.

The comparison process, called research design, is the topic of this paper. One design type, the quasi-experiment, is suggested as appropriate for state and local evaluation efforts. The method of selecting groups for this comparison and methods of validating the study are also discussed. Research design is the single most important issue in criminal justice evaluation. Unlike complex statistical analysis, the concepts of research design (comparison) can be easily grasped by the layperson. Illustrations in this paper are chosen from the pretrial diversion field, though the reader will find a similar approach can be used in any area of criminal justice research.

Why Do Outcome Analysis? Outcomes are those variables and empirical measurements which allow an evaluator to determine the impact that a program is having on the client (and perhaps indirectly on the criminal justice system). Though this article argues the importance of outcome analysis, its purpose is not to discuss the nuances of this topic.<sup>1</sup> The outcomes used in the analysis of diversion programs include such variables as recidivism, employment and wages, system impact, psychological variables and cost analysis.

There are two major reasons why outcome analysis is important. First, decisions on program worth and subsequent actions result too often from subjective opinions. Indeed, assessment of participants in the criminal justice system is sometimes used to evaluate whether the program is having an impact on clients. Obviously, those with the greatest stake in and enthusiasm about the program's effect are the program staff. Often, the program's virtues will be extolled by its staff, whether or not the impact has been measured and demonstrated. Opponents of such programs, on the other hand, can also vent their opinions on the lack of program impact. Both are "opinions", unsubstantiated by evidence

1/ For example some question whether recidivism is by itself an appropriate outcome variable. When variables such as system impact and psychological factors are used, there are questions about the ability of researchers to measure these adequately. There are also measurement problems with recidivism. Distinctions between in-program or post-program recidivism and rearrests or convictions as measures continue to be sources of controversy.

48252

which would allow an impartial observer to make a determination of program impact. Therefore, the effectiveness of the program is often decided by the party which is most loquacious or vociferous, rather than by any objective criteria. Secondly, criminal justice officials often evaluate programs by examining internal processes such as efficiency and organization even though a well-organized agency does not necessarily have an impact on client outcomes. Only factual outcome information can provide an insight into program impact on clients. Therefore, the study of outcomes is indispensable to making decisions about the effectiveness of individual agencies.

Why is Design Important? Once a decision has been made to use outcome analysis, then design considerations become the single most important research issue. Research design is important since without the use of either an experimental or quasi-experimental design, we cannot have much confidence in the result of any study. The reasons for this are simple. Programs often make claims that they are having an effect on the recidivism rate, employment rates, etc. However, many criminal justice programs "cream" defendants, i.e., they divert defendants who are good risks. This practice produces "good" statistics even though the program may not have any effect on the client. An illustration of this is provided by a hypothetical agency which is proud of its record of a 5% recidivism rate. Five percent is a "low" number which, on the surface, convinces many decision makers that the agency is having an impact on crime rates. However, this hypothetical agency may only be taking the proverbial "virgins and boyscouts" who would recidivate at very low percentages whether or not they were in the program. Therefore, one must raise the question: "to what can 5% be compared?" It certainly cannot be compared to the total population of criminal justice defendants, because the clients of the hypothetical agency are a considerably lower risk than the general defendant population. Aside from the question of validity of results, the impact of low figures on client selection practices equally justifies the design question. If design (another name for comparison) is not built into evaluation, agencies are then encouraged to select the lowest risk clients rather than those higher risk defendants upon which they could have the greatest impact. Not only does this mean that services are withheld from those with the greatest need but the cost effectiveness of a program may be lower.

A Description of Two Designs. The most reliable way to provide a comparative context in which to judge program impact on client outcomes is to use an experimental design. An experimental design involves the random assignment of defendants to an experimental group (a diverted group in this case) and a control group (not diverted). Random selection (also called equal probability assignment) ensures that experimental group and control group are similar in characteristics. Any difference in client outcomes are solely due to the programs' effect. However, experiments are difficult to implement because program administrators and criminal justice officials perceive legal and ethical problems.

The quasi-experimental design provides an approximation to the experimental design. Instead of using random assignment and a control group, a comparison group is formed from archival court records of defendants similar in characteristics to the diversion clients. The major problem in quasi-experimental design is in selecting a comparison group as similar as possible to the program group. In the case of diversion, a comparison group may include:

- Defendants chosen from a time period before the program started, who would have been eligible for diversion had the program been in existence.
- Defendants who would have been eligible for diversion, but were not screened by the program.
- Defendants who were eligible for diversion, but were not referred because of lack of knowledge about their eligibility.

Because the program group is often chosen by different means, there will be some differences between program and comparison groups. Therefore, it is important to demonstrate that the two groups are equivalent. Equivalence can be demonstrated by comparing various social and criminal justice characteristics of the two groups. This means that the non-outcome variables such as race, sex, current charge, prior record, etc., must be used to determine the similarities of the two groups. If the two groups do not share these characteristics, it must be assumed that the groups are not equivalent and results cannot be used as acceptable evidence of program effects on client outcomes.

A number of diversion studies have used inappropriate comparison groups and their results suffer from the lack of credibility discussed above. Chart I shows the four types of errors found in the diversion studies examined:

- Example 1 -- A number of studies reported recidivism rates for program clients and did not use comparison group. Such information is of little value since it does not provide any insight into the actual program impact. Such practices may only be demonstrating that a program is choosing low risk clients.
- Example 2 -- A number of studies compared diversion clients to the general defendant population. In one study the diversion program took misdemeanants who were young, unemployed, and members of racial minorities. These defendants are generally considered as higher risks than the total misdemeanor population. Consequently, the misdemeanor defendant population was not an accurate comparison group. Other studies showed the converse, where the general defendant population was a greater risk than the diversion clients. In these programs the diversion clients were chosen because they were better risk and less apt to recidivate. Therefore, the general defendant population in this situation cannot be

used as a comparison group.

- Example 3 -- A number of studies made up a comparison group of defendants who had been terminated from the program. However, this was an inappropriate comparison group because one of the measurements of program success is the recidivism rate while in the program. Since clients who were program "failures" had been eliminated, a program artificially improved its statistics. In quasi-experimental design the program group must include both the successful and unsuccessful terminations.
- Example 4 -- A number of studies chose a comparison group from clients who were turned down by the district attorney. These clients constituted a greater risk, because by definition they were rejected by other criminal justice actors. They were inappropriate for use as an equivalent comparison group.

CHART I

FLAWED COMPARISON GROUPS

	1	2	3	4
Program Group	All Program Clients	All Program Clients	Program Clients Successfully Terminated	All Program Clients
Comparison Group	None	General Defendant Population	Program Clients Unsuccessfully Terminated	Prospective (Screened) By D.A.

Summary This paper has argued that the quasi-experimental design is necessary if a program wants to do outcome analysis. Furthermore, a quasi-experimental design which includes a relatively small number of outcome variables should be relatively easy to develop. If some arrest information is gathered to measure recidivism and a comparison group of 100 clients is employed, then the costs of data gathering should be relatively low. Unfortunately, too many researchers have fallen prey to the law of large numbers. That is, they prefer to gather extremely large samples without recognizing that the comparative question brought about by design type is relatively more important than the size of the

sample. This article argues that a carefully drawn sample using a quasi-experimental design is appropriate for making judgements on local program impacts on clients. There are numerous sources which present further information on both outcomes and design consideration. The Pretrial Services Resource Center has produced publications on Suggested Research Practices and Research Findings in both pretrial release and diversion which can be obtained upon request.

\*This is a preliminary report of a larger study by the Pretrial Services Resources Center.

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--Michael Kirby

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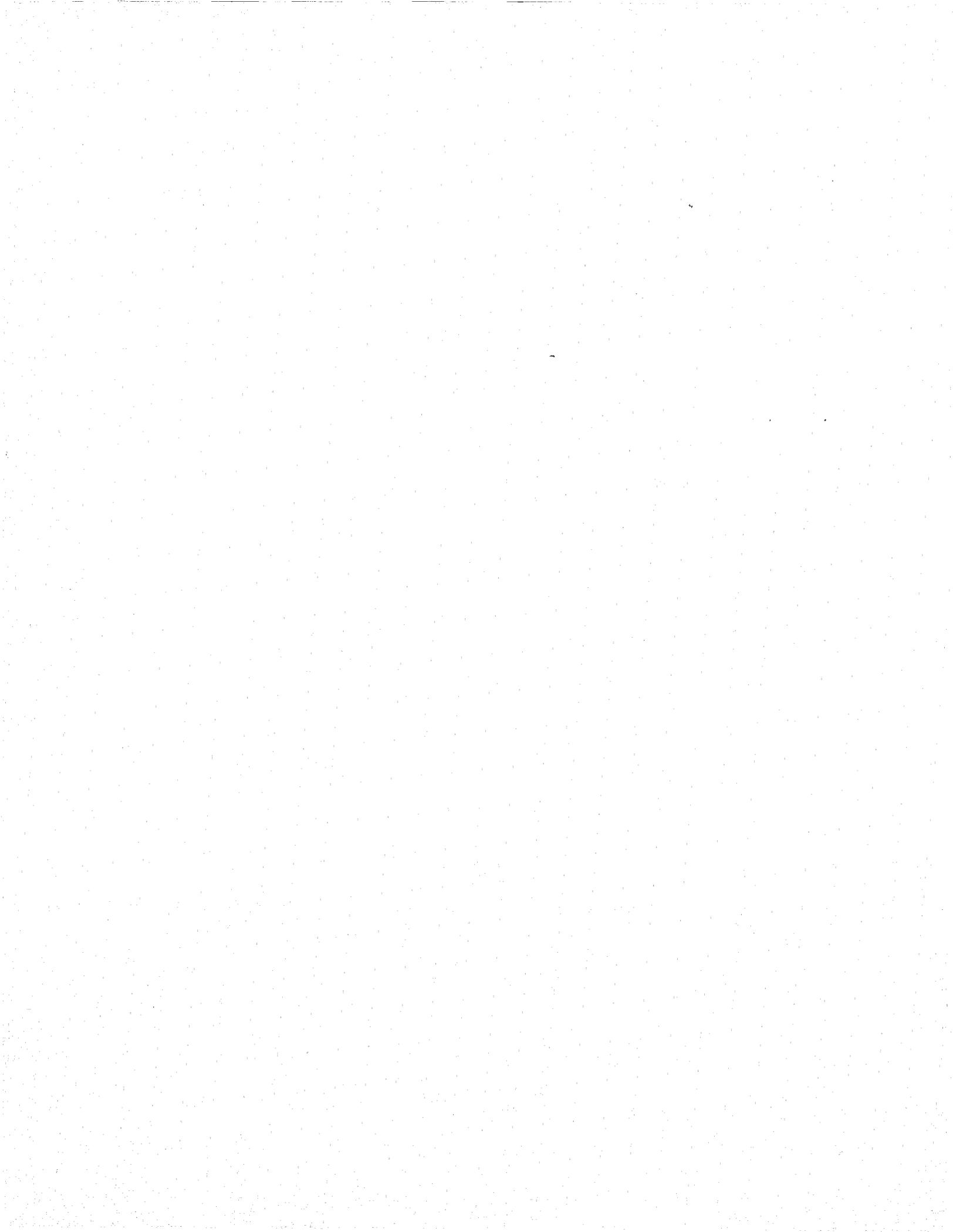
#### RESEARCH IN THE THEORY OF GENERAL DETERRENCE

The National Institute of Law Enforcement and Criminal Justice hereby announces the initiation of a program of research in the theory of general deterrence. The goal of this program is to increase the quantity and quality of empirical evidence and scientific understanding of the effectiveness of criminal justice penalties to deter criminal activity on the part of would-be offenders.

The purpose of this solicitation is to invite research organizations with a particular interest in this area to participate in the program competition by submitting concept papers in accordance with the general directions specified below. Please note that this is a research grant program and that LEAA policy prohibits the awarding of grants to organizations chartered as profit-making corporations.

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